Bad River Band Of Lake Superior Tribe Of Chippewa Indians

CHIEF BLACKBIRD CENTER Box 39 • Odanah, Wisconsin 54861

February 11, 2025

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Re: Notification of Objection under Clean Water Act 401(a)(2) to U.S. Army Corps of Engineers Individual Permit for Enbridge Energy's Proposed Line 5 Wisconsin Pipeline Relocation Project

Dear Administrator Zeldin, Acting Regional Administrator Newton, District Engineer Col. Swenson, and Mr. Konickson:

The Bad River Band of Lake Superior Tribe of Chippewa Indians ("Band") received notice from the U.S. Environmental Protection Agency ("EPA") on December 13, 2024, that discharges associated with the above-referenced proposed Project may affect the quality of the Band's waters. Pursuant to Clean Water Act ("CWA") Section 401(a)(2), 33 U.S.C. § 1341(a)(2), the Band has determined the discharges related to the proposed project **will affect** the quality of the Band's waters, aquatic resources, and wetlands, so as to violate the Band's water quality requirements.

In accordance with CWA Section 401(a)(2), the Band has reviewed water quality effects related to discharges from the proposed Project. I am enclosing the Band's analysis prepared by the Mashkiiziibii Natural Resources Department ("MNRD") along with supporting attachments, which sets forth the Band's determination that the proposed Project will affect the quality of the Band's waters. The Band's analysis identifies the specific receiving waters and water quality requirements that will be affected, including non-compliance with the Band's Water Quality Standards approved under the Clean Water Act. In addition, the proposed project will impact the Band's Treaty resources, rights to which your agencies must give appropriate consideration. Accordingly, the Band hereby notifies you of its objection to permitting the proposed project

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under CWA Section 404 and requests a public hearing on the objection pursuant to CWA Section 401(a)(2). The Corps' regulations require the public hearing be held within the Bad River Reservation, 33 C.F.R. § 325.2(b)(l)(i). The Bad River Convention Center in Odanah, WI would be a suitable location for the public hearing. We also request that the necessary interpreters be available at the hearing, including an Ojibwe language interpreter, as the Ojibwe language is more descriptive of the connectedness of waters and their uses. We look forward to coordinating with you to finalize the necessary details for the hearing, including scheduling the hearing at a time that works for the Band and the necessary duration for the Band's testimony.

If you have any questions, please feel free to contact Naomi Tillison, MNRD Director, via email at nrdirector@badriver-nsn.gov, or via telephone at (715) 292-0197.

Sincerely,

Robert Blanchard
Tribal Chairman
Bad River Band of Lake Superior Tribe of Chippewa

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Enclosures:

The Mashkiiziibii Natural Resources Department Clean Water Action Section 401(a)(2) "Will Affect" Analysis For Enbridge Energy's Line 5 Wisconsin Segment Relocation Project |
Attachments A-C: Relevant Case Studies
Attachment D: Current Conditions of Rivers and Streams on and around Mashkiiziibiing Reservation
Attachment E: U.S. Environmental Protection Agency, *Cumulative Impacts: Recommendations of ORD Research* (Jan. 2022)
Attachment F: U.S. Environmental Protection Agency, *Exploring Cumulative Environmental Impacts on Native American and Alaska Native Community Health through Authentic Engagement and Culturally Relevant Participatory Methods: "Tribal Cumulative Impacts"* (Aug. 2022)
Attachment G: Tribal Cumulative Impacts Pilot Study Invitation from Bad River and U.S. EPA to Indian Health Services
Attachment H: Letter from Indian Health Services to Bad River re: TCI pilot study (July 1, 2024)

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The Bad River Band of Lake Superior Tribe of Chippewa Indian's
Clean Water Act Section 401(a)(2) "Will Affect" Analysis
For Enbridge Energy's Line 5 Wisconsin Segment Relocation Project
February 11, 2025

Developed by:
Mashkiiziibii Natural Resources Department
With input from:
Thompson & Associates
Wright Water Engineers
LimnoTech, Inc.
Great Lakes Indian Fish and Wildlife Commission

I. INTRODUCTION

On December 13, 2024, the U.S. Environmental Protection Agency ("EPA") notified the Bad River Band of Lake Superior Tribe of Chippewa ("Band") pursuant to Clean Water Act ("CWA") Section 401(a)(2), 33 U.S.C. § 1341(a)(2), that discharges associated with Enbridge Energy's Line 5 Wisconsin Segment Relocation Project ("Project") may affect the Band's water quality.[1] Accordingly, the Band's Mashkiiziibii Natural Resources Department ("MNRD") reviewed water quality effects related to discharges that may result from the Project in order to evaluate whether the discharges "will affect the quality of [the Band's] waters so as to violate any water quality requirements" in the Bad River Reservation.[2] This review included reviewing information related to the Project, including but not limited to, Wisconsin's Final Environmental Impact Statement ("FEIS"), related permits, approvals and 401 Certification, the Environmental Construction Plan ("ECP"), Corps' Enbridge Line 5 Wisconsin Segment Relocation Project: Draft Environmental Assessment, Clean Water Act Section 404(b)(1) Guidelines Evaluation, Public Interest Review dated 5/20/2024 ("DCDD"), maps, images, and other data of the impacted surface waters that are hydrologically connected to the Reservation waters, and other relevant information.[3]

[1] Letter from David Pfeifer, Manger, Watersheds and Wetlands Brandt, Region 5 U.S. EPA to Robert Blanchard, Chairman, Band River Band of Lake Superior Chippewa re: "May Affect" Notification and Analysis (Dec. 13, 2024) **(Attachment 1)**.

[2] 33 U.S.C. § 1341(a)(2).

[3] The Band continues to have serious concerns with the deficiency of information provided by Enbridge and its contractors and considered by the Wisconsin Department of Natural Resources and the Corps St. Paul District. *See e.g.* Letter from Mike Wiggins, Jr., Chairman, Bad River Band, to Bill Sande, St. Paul Dist., U.S. Army Corps, 1-2 (March 22, 2022) ("Band's 2022 Comment on Corps Public Notice"); Letter from Mike Wiggins, Jr., Chairman, Bad River Band, to Adam C. Mednick, WI Envt'l Policy Act Coordinator, WDNR, 1-2 (April 15, 2022) ("Band's Comment on WDNR DEIS"); Letter from Robert Blanchard, Chairman, Bad River Band, to Bill Sande, St. Paul Dist., U.S. Army Corps, 1-2 (Aug. 30, 2024) ("Band's 2024 Comment on Corps DCDD").

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MNRD was assisted in its review by subject matter experts from Thompson & Associates, Wright Water Engineers, LimnoTech. Inc., and the Great Lakes Indian Fish and Wildlife Commission ("GLIFWC"). Together, the MNRD and the subject matter experts developed this analysis.

This analysis incorporates by reference in its entirety the Band's previous submissions to the Corps and Wisconsin Department of Natural Resources ("WDNR"), including attached staff and expert reports.[4]

Based on this analysis, the Band has determined the discharges allowed under the Project will affect the Band's water quality so as to violate water quality requirements within the Bad River Reservation. A Section 404 Permit should not be issued by the U.S. Corps of Engineers because those violations of the Band's water quality requirements violate Section 401(a)(2) of the CWA and Section 230.10(b) of the CWA regulations (aka the "404(b)(1) Guidelines") governing issuance of Section 404 permits (40 C.F.R. Part 230).[5] Moreover, there are not adequate protective permit conditions nor corrective actions that can be imposed based on the Project as designed to prevent these violations. A summary of the main conclusions reached as part of this determination is set forth in the next section.

II. SUMMARY CONCLUSIONS

- The Band's WQS were not considered in the State of Wisconsin's 401 certification of the Project.[6]
- The conditions in Wisconsin's permits and 401 certification will not ensure the Band's WQS and other water quality requirements will be met for regulated activities discharging to waters located upstream or adjacent to surface waters within the Reservation boundaries. The Project will result in noncompliance with the Band's antidegradation provisions, and the criteria (narrative and numeric) derived to protect the designated and existing uses of the surface waters within the Reservation boundaries. The Project will cause or contribute to causing the lowering of water quality below the minimum conditions necessary to support designated and existing uses of the Reservation waters and waters hydrologically connected to these waters.
- The conversion from one wetland type (e.g., forested) to an emergent wetland in a "permanently maintained right-of-way" is a permanent impact or change as this conversion results in changes or losses of the functions and uses supported by the original wetland

[4] Band's 2022 Comment on Corps Public Notice (and Attachments); Band's Comment on WDNR DEIS (and Attachments); Band's 2024 Comment on Corps DCDD (and Attachments), *supra* note 3.

[5] Moreover, the adverse impacts to aquatic resources described herein will cause or contribute to significant degradation of Waters of the U.S., a violation of Section 230.10(c) of the 404(b)(1) Guidelines that underscores why the Section 404 Permit should be revoked and not issued.

[6] Wisconsin's Section 401 certification is currently being challenged in a state contested case hearing and in state circuit court by the Band, as well as by several non-profit organizations.

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type.[7] These changes cannot be fairly categorized as "temporary" given the permanent loss of function. *Id.* Such loss of function will impact tribal water quality, attainment of tribal uses, and interfere with the maintenance of the Reservation's high-quality waters.

- Furthermore, the duration of other Project impacts categorized as "temporary" will last significantly longer than "temporary", which the Corps has defined as impacts lasting up to 90 days.
- Additionally, inadequacies of the mapping data from Enbridge surrounding surface waters, especially wetlands, impacted by this Project continue to hamper full analysis of impacts by regulators. MNRD provided field data documenting unmapped wetlands and drainages numerous times, including analysis of areas where Enbridge's data sets lacked data, were not consistent, and/or misrepresented resource conditions. These concerns, plus the limited scope of analysis showing the connections between wetlands and other surface waters, including the connection between surface water and groundwater, mean that impacts have been underestimated.

III. ANALYSIS

A. Background

1. The Band's Water Quality Program

Since June 26, 2009, the Band has had treatment as State ("TAS") authority pursuant to the CWA.[8] EPA approved the Band's water quality standards ("WQS"), which apply to all waters of the Bad River Reservation.[9] The Band's WQS consists of designated uses, narrative, numeric criteria to protect those uses, and anti-degradation provisions. Among other things, the Band's WQS protects Band members in the exercise of their Treaty rights and the uses of water for subsistence purposes and health and to maintain their cultural and spiritual identity and traditions.

The Band administers its water quality program and enforces its water quality requirements in order to protect, restore, and maintain the Reservation's water quality now and for future generations. For over 25 years, the Band has conducted a comprehensive monitoring program to evaluate the water quality of the Reservation's waters. The Band also issues certifications pursuant to CWA Section 401(a)(1).[10]

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[7] S*ee* Letter from Tera L. Fong, Dir., Water Div., U.S. EPA Region 5 to Karl Jansen, Deputy Dist. Engineer, USACE St. Paul Dist., at 6 (March 16, 2022) (Attachment J of the Band's 2022 comments).

[8] See 33 U.S.C. § 1377.

[9] *See* Bad River Band of Lake Superior Tribe of Chippewa Indians, Water Quality Standards (July 2011), https://www.badriver-nsn.gov/wpcontent/uploads/2020/01/NRD_WaterQualityStandards_2011.pdf

[10] *See* Water Quality Certification and Water Quality Review Code of the Bad River Band of the Lake Superior Tribe of Chippewa Indians, Chapter 3.12 (formerly Chapter 324), https://law.badriver-nsn.gov/us/nsn/badriver/council/code/3.12.

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As described in more detail in the Band's WQS, the history of the Bad River Band, as well as our future survival and growth, is inextricably intertwined with pure water. Anishinaabe considers Nibi, Water, as the most sacred living part of our Mother, the Earth. Without water, there is no life. Water is the lifeblood of our Mother, the Earth, and without healthy blood, illness prevails. Water is a primary component in the migration story of the Anishinaabe people, who searched for a place where food grows on the water; that food is manoomin (wild rice). Although WQS are set within certain borders; water knows no boundaries. It is a living, moving part of life that changes with its surrounding environment.

2. Environmental Setting Summary

a) The Bad River Reservation

The Bad River Reservation includes over 124,000 acres along Wisconsin's north shore, including almost 200 acres on Madeline Island. Bordering the shores of Lake Superior, the Reservation lies at the mouth of a large sub-basin draining a mostly forested, rural area. The rivers flowing through the Reservation are important spawning grounds for sturgeon and walleye as well as many other fish species, which make up a significant subsistence resource for over 1,200 Tribal members living on the Reservation or in the surrounding area. Groundwater resources are also of critical importance, as it is the only source of drinking water on the Reservation. In addition, the unique wetland complex known as the Kakagon and Bad River Sloughs provides abundant habitat for wild rice, which is a cornerstone of the Band's culture and identity. The Kakagon and Bad River Slough complex is one of the only remaining extensive coastal wild rice wetlands in the Great Lakes Basin. The Sloughs complex has been designated as a Ramsar[11] site, or a Wetland of International Importance, and has received numerous other designations and recognitions over the years, such as a National Natural Landmark. Additionally, the U.S. EPA has recently identified that the Sloughs are an Aquatic Resource of National Importance[12]. The Sloughs complex comprises 13% of the coastal wetlands mapped within the entire Lake Superior basin and comprises over half (55%) of the coastal wetlands mapped within the Wisconsin portion of the Lake Superior basin.

[11] *See Kakagon and Bad River Sloughs*, Ramsar Sites Information Services https://rsis.ramsar.org/ris/2001 (last accessed Feb. 11, 2025); *see also Kakagon and Bad River Sloughs Recognized as a Wetland of International Importance*, Bad River Tribe https://www.badriver-nsn.gov/kakagon-and-bad-river-sloughs-recognized-as-a-wetland-of-international-importance/ (last accessed Feb. 11, 2025).

[12] As identified in the March 16, 2022 404(q) "May Affect" Letter from EPA to ACOE (Attachment J of the Band's 2022 comments) and again in the April 13, 2022 404(q) "Will Effect" Letter from EPA to the ACOE both regarding Public Notice MVP-2020-00260-WMS / Enbridge Line 5 Wisconsin Segment Relocation.

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Since the Reservation lies at the base of a sub-basin that drains over 1,000 square miles of Lake Superior's southern shore and tribal waters experience a seiche effect from Lake Superior which can carry water upstream at least as far as US Hwy 2 along the Bad River, the Band remains concerned about how activities in upstream portions of the sub-basin's watersheds effect the environment on the Reservation and the health of Lake Superior, upon which the Band depends. Water from both the Bad-Montreal (Hydrologic Unit Code (HUC) 04010302) and Beartrap-Nemadji (HUC 04010301) watersheds flow both onto the Bad River Reservation and into the nearshore waters of Lake Superior that are known to be carried by seiche back into the Reservation's coastal ecosystems leading the Wisconsin Department of Natural Resources to recognize this connection and change the Lower Bad River Watershed (LS09) boundary accordingly for management purposes[13].

The Bad River Reservation is rich in water resources, with approximately 488 miles of mapped intermittent and perennial streams, 545 acres of mapped lakes and ponds, and 52,554 acres of mapped wetlands.[14] While we recognize that much of the mapped streams, lakes, and wetlands are derived from remote sensing data sets and on-the-ground assessment is needed for more accurate numbers, the general concept is that the Reservation is extremely water-rich and our land base is over 43% wetlands.[15]

b) Overview of Surface Waters Impacted

Due to the Reservation's physical setting on the landscape, all of the Band's waters are downstream and/or adjacent to waters where the State of Wisconsin holds the delegated CWA 401 certification authority from the EPA (Map 1). The Bad River (HUCs 0401030203 & 0401030207), or Mashkkiiziibing, after which the Reservation is named, starts approximately 37.8 river miles upstream of the southern boundary of the Reservation in the Penokee Hills, an area rich in wetlands and forests and primarily undeveloped. As the Bad River flows downhill towards Lake Superior and the Reservation, it drains 138,873[16] acres of land and she is the receiving water for the Tyler Forks River (HUC 0401030202), Marengo River (HUC 0401030204), Potato River (HUC 0401030205), and White River (HUC 0401030206) which together drain an additional 664,702 acres of land. These rivers are connected to a rich abundance of wetlands across the landscape by other smaller perennial, intermittent, and ephemeral creeks

[13] *Watershed – Lower Bad River (LS09)*, WDNR, https://apps.dnr.wi.gov/water/watershedDetail.aspx?code=LS09&Name=Lower%20Bad%20River (last accessed Feb. 11, 2025).

[14] Atlas of Land and Aquatic Resources within the Bad River Band of Lake Superior Tribe of Chippewa Reservation, February 2017

[15] Percentage based solely on large wetlands mapped in the Wisconsin Wetland Inventory 2013 data for Ashland and Iron Counties.

[16] Excludes the acreage of Graveyard Creek-Frontal Lake Superior (400103020703).

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and drainages including the Bibon Swamp State Natural Area, lakes and wetlands in the Chequamegon-Nicolet National Forest, and surface waters in Copper Falls State Park.

Additionally, the Reservation sits downstream and/or adjacent to other waters of the State of Wisconsin that are connected hydrologically to the Bad River and Kakagon Sloughs Complex where there only exists an arbitrary boundary dividing the surface waters of the Bad River-Montreal Sub-Basin from the Beartrap-Nemadji Sub-Basin, especially the waters of the Beartrap Creek-Frontal Chequamegon Bay (HUC 040103011101) as referenced above with WDNR's watershed boundary change which includes HUC 040103011101 as part of the Lower Bad River Subwatershed. Other HUCs that contain waters that either span or flow onto the Reservation from the state include Graveyard Creek-Frontal Lake Superior (HUC 040103020703) and Fish Creek-Frontal Chequamegon Bay (HUC 40103011105). Other waters in the two previously mentioned sub-basins also flow directly into Lake Superior into nearshore areas that have been known to have currents interacting with the Reservation's nearshore waters. These nearshore waters regularly are pushed up into the Reservations inland waters by the seiche effect, as described earlier in this letter.

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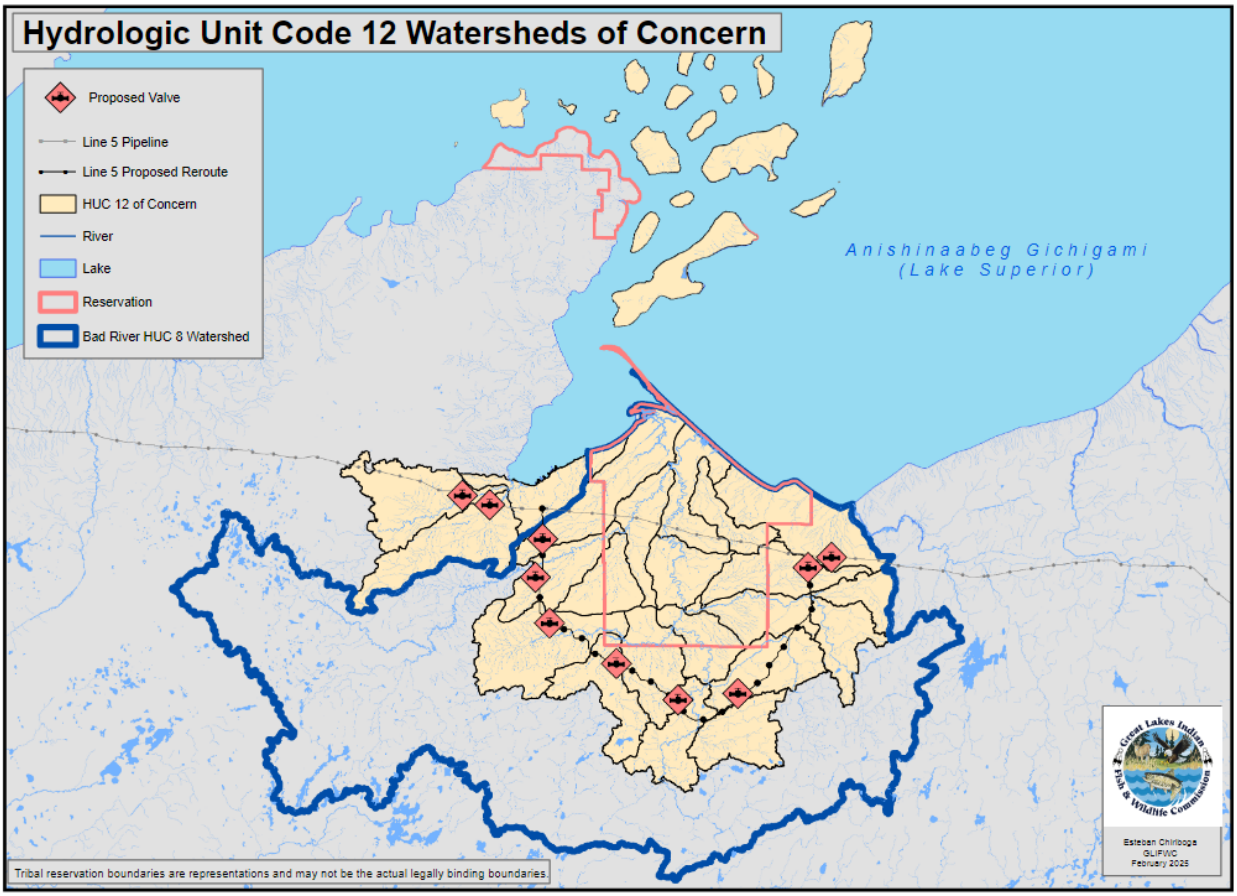

Map 1. The hydrologic unit codes that the Band has identified as areas of concern for discharges from the project.

Due to all of these hydrological connections between the Band's waters—which are all classified as either Exceptional Resource Waters (ERWs), Outstanding Resources Waters (ORWs), and Outstanding Tribal Resource Waters (OTRWs)—and the waters of the State of Wisconsin, the Band has specific concerns regarding discharges from the Project occurring in Bay City Creek, Little Beartrap Creek, Beartrap Creek, White River, Deer Creek, Marengo River, Brunsweiler River, Trout Brook, Billy Creek, Silver Creek, Krause Creek, Bad River, Gerhman Creek, Camp 4 Creek, Feldcher Creek, Tyler Forks River, Vogue Creek, Coil Creek, Potato River, Lawrence Creek, and Vaughn Creek plus the many tributaries, drainages, wetlands, and water resources that are crossed by the project and connected to tribal waters. Discharges to these water resources can cause degradation to the Band's water quality and aquatic resources. More specifically, the Band has concerns that discharges allowed under the Army Corps' Permit with the State's CWA 401 certification will degrade the water quality on Reservation (Map 1) including in high-quality streams and rivers (Map 2) and in high-quality wetlands (Map 3).

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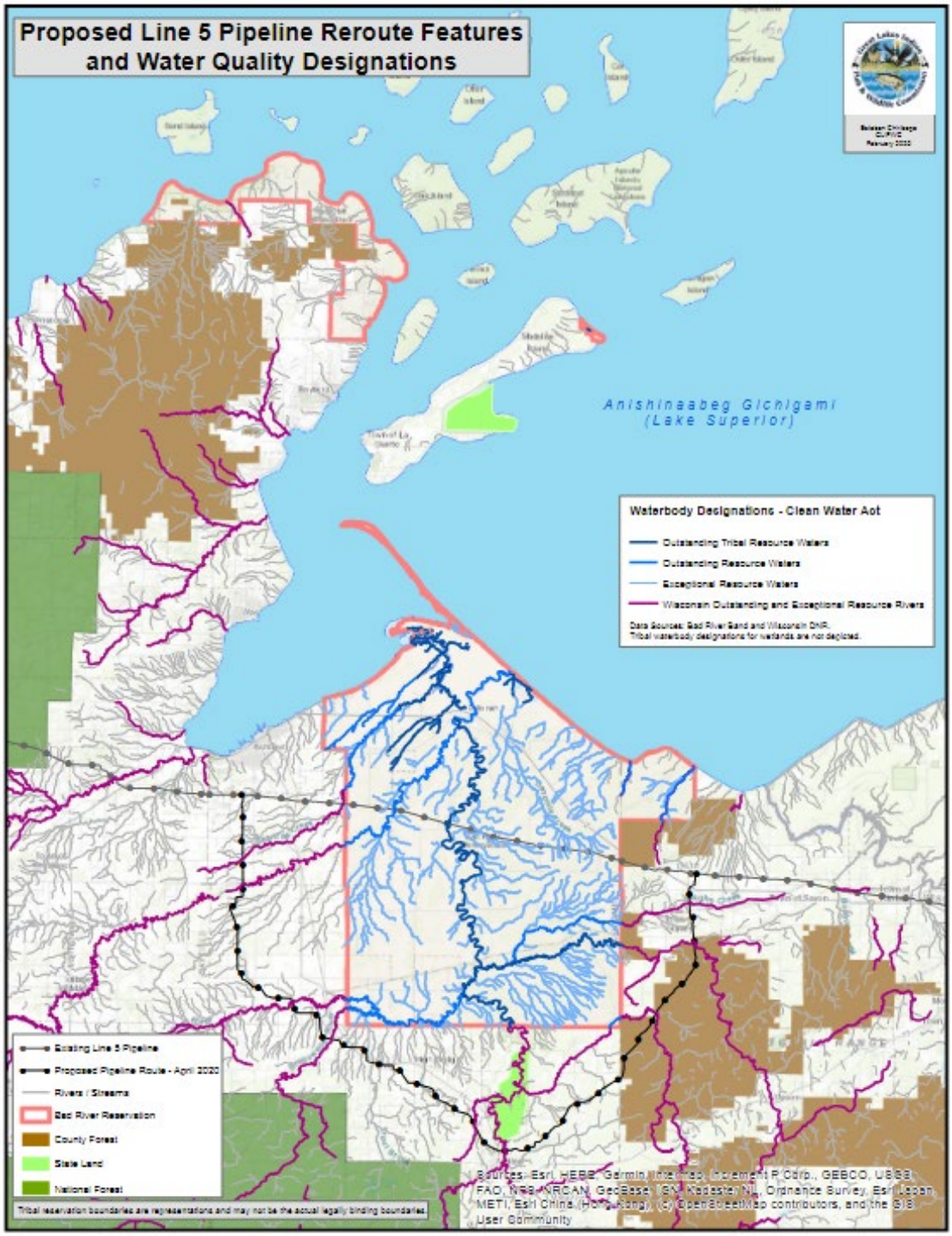

Map 2. The Project will directly cross 138 streams and rivers (RPS, 2023) including many high-quality watercourses as designated by the State of Wisconsin. Discharges from the Project will impact high-quality streams and rivers within the Reservation boundaries as designated by the Band's WQS.

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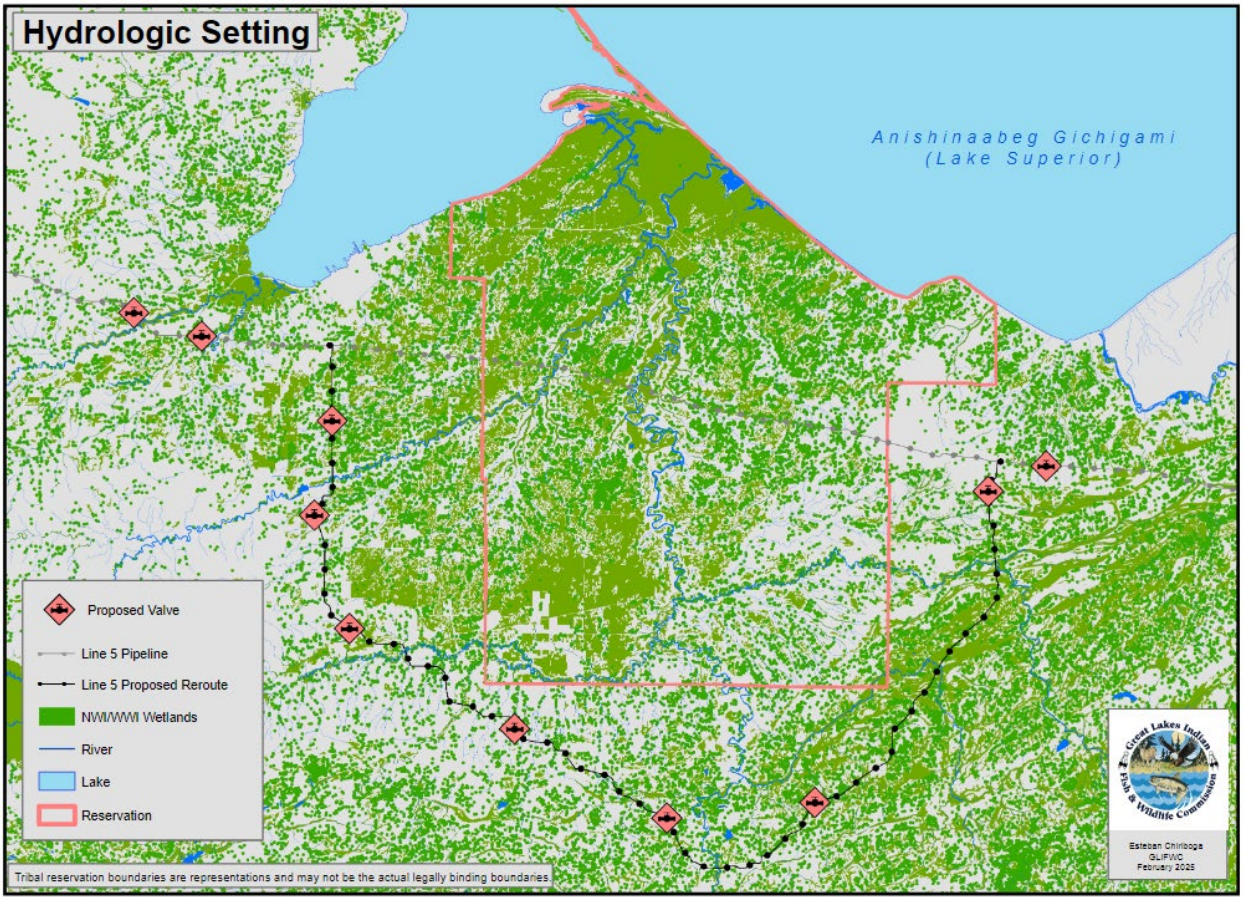

Map 3. The Project will directly impact over 100 acres of wetlands, and discharges from the Project will impact high-quality wetlands within the Reservation boundaries as designated by the Band's WQS.

c) Existing Conditions of Surface Waters

The Band's MNRD has implemented surface water monitoring on-reservation and in the watershed since 1997 for streams and rivers, with wetland monitoring beginning in 2001. MNRD has developed a monitoring strategy aligned with the goals and objectives outlined in the Band's Integrated Resources Management Plan (IRMP, 2001). The goals from the IRMP specific to the water resources include protecting the quality of near-pristine surface water on the Bad River Reservation and improving the quality of those waters impacted by point and non-point pollution, to conserve existing wetlands and restore degraded wetlands to increase the quality of wetland resources on the Bad River Reservation, and to protect and improve the groundwater quality on the Bad River Reservation and prevent future negative impacts to groundwater.

Long-term, annual monitoring has included the following parameters: turbidity, temperature, pH, dissolved oxygen, conductivity, total suspended

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solids, total dissolved solids, orthophosphate, nitrate, hardness, chloride, E. coli, fecal coliforms, and total coliforms. Additional parameters that have been sampled as funding allows include sulfate, dissolved organic carbon, alkalinity, mercury and other heavy metals, pesticides, PCBs, dioxin/furans, Total Kjeldahl Nitrogen (TKN), Nitrate-Nitrite, and Total Phosphate. Stream flow (or discharge) and/or water depth monitoring is measured concurrently with water quality and macroinvertebrate and biological sampling in wadeable streams. In wetlands, water depths are recorded concurrently with water quality and macroinvertebrate and biological sampling. Vegetation surveys, fish surveys, and wildlife surveys also occur across the Reservation documentation different species occurrence and use of surface waters and other habitats. Although long-term monitoring data exists for some surface waters, there are limitations to the current monitoring and datasets that will be discussed in different sections of this letter, including the inadequacies of the data that the ACOE and the State are relying on to make their decisions.

Many high-quality and unique water resources exist within the Chequamegon Bay area, including surface waters within the Bad River Reservation, such as the Bad River, Kakagon-Bad River Sloughs wetland complex, Tyler Forks River, and Potato River. According to the EPA, "[t]he Kakagon-Bad River Sloughs wetland complex has been recognized as performing important and irreplaceable functions within the Lake Superior Watershed" and the Bad River and Kakagon-Bad River Sloughs wetland complex as Aquatic Resources of National Importance (ARNIs).[17] In addition to the numerous designations previously mentioned, the Kakagon-Bad River Sloughs wetland complex contains critical habitats in the Lake Superior Watershed and supports a wide range of species, including wild rice and other unique species or species of special concern.

Piping plovers, an endangered species, nest along the Lake Superior shoreline bordering the Kakagon-Bad River Sloughs complex, including Chequamegon Point and the mouth of the Bad River. Piping plovers were originally listed as endangered in 1986 due to habitat loss and human disturbance.[18]

The Wisconsin Department of Natural Resources (WDNR) has further indicated that the Bad River "is considered a warm water sport fishery important for spawning walleye and lake sturgeon, as well as supporting migratory runs of trout and salmon species. Other fish found in the lower

[17] Letter from T. Fong, *supra* note 7.

[18] More information about piping plovers, the recovery efforts implemented by many partners, and a summary of the 2024 season, which included a nest at the mouth of the Bad River, is available at: https://www.badriver-nsn.gov/wp-content/uploads/2025/01/PIPL-Report-2024.pdf.

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portion of the river include muskellunge, northern pike, rock bass, pumpkinseeds, bullheads, black crappies, smallmouth bass and yellow perch."[19] According to the National Park Service (NPS) the Bad River has been recognized since 1982 as part of NPS's Nationwide Rivers Inventory being a free-flowing river "believed to possess one or more 'outstandingly remarkable' natural or cultural values judged to be at least regionally significant. Hence, NRI river segments[20] are potential candidates for inclusion in the National Wild and Scenic River System. Under the Wild and Scenic Rivers Act section 5(d)(1) and related guidance, all federal agencies must seek to avoid or mitigate actions that would adversely affect NRI river segments." (NPS, 2024).

Other Reservation waters, like Tyler Forks River, Bad River, and Tyler Forks riparian wetlands, are more pristine and support their designated uses (refer to Attachment D for a summary of current conditions). For example, macroinvertebrate surveys conducted from 2011 to 2014 on the Tyler Forks River within the Reservation have had an average Hilsenhoff Biotic Index (HBI) of 2.67, which is ranked as excellent. These same years had the Ephemeroptera (mayflies), Plecoptera (stoneflies), and Trichoptera (caddisflies) portions measured as well to form an EPT index which had an average value of 12.6 ranking as Fair. Both of these methods are used to measure impacts from organic pollution (HBI) or turbidity (EPT index). During these surveys two special concern species were found, 2 special concern species. One of the species, *Isogenoides frontalis* (Perlodid Stonefly), is very sensitive to changes in nutrient and sediment loading. These sensitive organisms at the base of the aquatic food chain would be negatively affected by the water quality impacts listed above.

Although high-quality and unique water resources exist in the Chequamegon Bay region, there are some water quality impairments and surface waters that are not currently fully supporting their uses as listed on CWA 303(d) lists and described in various management plans and assessment reports, such as the Marengo River Watershed Action Plan (2023)[21] and the Band's Non-Point Source Management Plan (2006). For example:

- Bay City Creek, a tributary to Chequamegon Bay (a bay of Lake Superior hydrologically connected to Reservation waters) is listed on the CWA 303(d) impaired waters list in Wisconsin for a degraded

[19] *Watershed – Lower Bad River*, *supra* note 13.

[20] *Nationwide Rivers Inventory*, National Park Service, https://home.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm

[21] The Marengo River Watershed Action Plan is an EPA-approved and Wisconsin DNR-approved nine-element watershed plan that was developed by the Superior Rivers Watershed Associated in partnership with communities and agencies. More information can be found at: https://www.superiorrivers.org/wpcontent/uploads/2023/07/Marengo-Action-Plan-FINAL.pdf.

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biological community due to total phosphorus pollution. Two other watercourses in Fish Creek Watershed (and tributaries to Chequamegon Bay) are also listed on the 303(d) list due to phosphorus pollution.[22]

- Lake Superior and multiple inland lakes are listed for mercury impairments, and numerous fish advisories are in effect to protect public health by eating less fish due to mercury, PFOS (a type of per- and polyfluorinated substances (PFAS)), and other contaminants.[23, 24]
- The Marengo River (a tributary to the Bad River) and Trout Brook Creek (a tributary to Marengo River) are listed on the 303(d) list in Wisconsin as impaired for fecal coliform.
- The Marengo River and Bear Trap Creek watersheds are identified by the Band of priority watersheds due to the documented non-point source pollution causing water quality impairments and resulting in designated and existing uses only being partially supported (Ledder, 2006). Bear Trap Creek has the highest degree of water quality impacts and is only partially supporting uses due to excess sediments, nutrients, and bacteria and low dissolved oxygen whereas Marengo River is only partially supporting uses due to excess nutrients and bacteria with water quality impacts rated as medium. This report also acknowledges Vaughn Creek, a tributary to Potato River, has some water quality degradation due to excess sediments, nutrients, and bacteria, resulting in Vaughn Creek not fully supporting uses.
- The Marengo River Watershed Action Plan (Superior Rivers Watershed Association, 2023) identified six primary watershed challenges for the Marengo River Watershed, including unstable hydrologic conditions in the system, excess sediment, terrestrial habitat fragmentation and alteration, loss and fragmentation of aquatic habitat, excess nutrients, and high bacteria counts. Causes of these challenges are attributed to many different factors, but all of them either have development (converting land use) or roads and road/stream crossings or both listed as contributing factors—these factors (plus others) will only be further exacerbated by the activities associated with the proposed Project. Thus, the project is not supportive, and is, in actuality, in opposition to the overall goals and objectives of the plan.

[22] *See Impaired Waters in Watershed (LS08)*, WDNR, https://apps.dnr.wi.gov/water/watershedImpaired.aspx?code=LS08.

[23] Wisconsin DNR and Department of Health Services released in February 2024 updated safe fish consumption guidelines based on levels of contaminants found in fish, available at https://dnr.wisconsin.gov/newsroom/release/87806. Wisconsin DNR's query tool indicates consumers should reduce the number of fish species consumed from Lake Superior and her tributaries due to mercury, PCB, and PFOS, a type of PFAS, *see* https://apps.dnr.wi.gov/fishconsumptionadvisoryquery/ (accessed Feb. 11, 2025).

[24] For a list of waters with current mercury impairments *see Water Conditions List*, WDNR, https://dnr.wisconsin.gov/topic/SurfaceWater/ConditionLists.html.

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- The Potato River and Vaughn Creek experience exceedances of water quality standards and preliminary studies suggest degradation by non-point source pollutants such as total phosphorus, total suspended solids, TKN, nitrate-nitrite, and E. coli. These studies suggest that Vaughn Creek contributes non-point source pollution into the Potato River and the Potato River starting at Highway 169 (and continuing downstream) is particularly impacted by non-point source pollution.[25]

The water quality in both high-quality waters who are currently supporting their uses and degraded waters who are not currently fully supporting their uses will be affected by this Project. The EPA has stated that the Kakagon-Bad River Sloughs and the Bad River are especially vulnerable to adverse impacts from project discharge because several waters with a nexus to this watershed are already impaired and/or are susceptible to receiving high loads of sediment.[26]

Throughout the Band's comment letters and consultation with the ACOE and WDNR, we have continuously pointed out the inadequacies of the mapping data surrounding surface waters, especially wetlands, impacted by this Project. Not only did we provide field data documenting unmapped wetlands and drainages, we also pointed out areas where Enbridge's data sets lacked data, were not consistent, and/or misrepresented resource conditions. These concerns plus the limited scope of analysis showing the connections between wetlands and other surface waters, including the connection between surface water and groundwater mean that impacts have been underestimated. *See* attachments to the Band's Aug. 30, 2024 Comment Letter on the DCDD, including Attachments A (Thompson Report), E (MNRD Environmental Report), F (MNRD Fisheries Report), L (MNRD WQS Report) J (MNRD Wetlands Report), and K (MNRD Other Waters).

B. Discharges and Impacts from the Project

1. Discharges

Due to the conversion of landscape to grass/herb landcover with associated soil compaction resultant from the use of timber matting and heavy machinery, the Project will increase discharge rates (from a 2-year, 24-hour storm event) in 15 watersheds that are crossed by the proposed Project and flow directly onto the Reservation including Vaughn Creek, Potato River, Tyler Forks, Bad River, Silver Creek, Billy Creek, Trout Brook, Brunsweiler River, Marengo River, White River, Beartrap Creek, and four watersheds for unnamed tributaries to Brunsweiler or Marengo Rivers. This increase is

[25] Potato River Watershed 2020-2021 NPS Monitoring Report, 2022. Prepared by LimnoTech for the Bad River Band of Lake Superior Tribe of Chippewa Indians.

[26] Letter from T. Fong, *supra* note 7.

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supported by years of analysis in published literature, including but not limited to:

- the effects of forest cover conversion on snowpack and peak flow hydrology (Appendix 2 of Wheeler et al. 2022), including but not limited to: "Differences in shading among coniferous forests, deciduous forests, and open lands affect the amount of solar radiation and resulting hydrologic patterns. Muss (2011) studied these relationships in the Bark River watershed in the Bayfield peninsula… [and] found substantial differences in peak discharge among the mature evergreen forest, mature broadleaf forest, and treeless cover scenarios… Total streamflow volume also differed greatly among sites, with treeless landscapes contributing 25% more than broadleaf forests, and 113% more than evergreen forests. His work found that canopy cover had the greatest influence on peak seasonal SWE[27] and snowmelt, while both plant area index and canopy cover influenced the rate of delivery and timing of snowmelt."
- the effects of riparian buffer removal on hydrology: "Equipment operations that compact soils in riparian areas can limit soil infiltration within riparian buffers (Hamza and Anderson, 2005)."
- The erosive nature of red clay plains geology: "… early removal of the forest cover, modification of natural drainage patterns and other activities have promoted drying in a 5-7-foot-thick surface zone of the clay soils. Drying in this surface zone has changed the mechanical behavior of the clay from a plastic solid to a brittle solid susceptible to fissuring and massive slope failure. Moisture accumulation in fissures provides the necessary lubrication for flowing and sliding to occur within the surface zone." (Andrews et al. 1979) and "Grasses and herbaceous plants yield beneficial anti-erosion effects. However, their relatively shallow and weak roots do not serve to prevent massive slope failure in surface zones where brittle clay conditions already exist. Woody plant species have stronger root systems which do help prevent slides" (Andrews et al. 1979) And "Vegetation plays a critical role in controlling runoff and stabilizing the soil, especially on steep slopes. Although a portion of the erosion occurring in this area is natural, human activities, including agriculture and forestry practices, have increased the rates of runoff, erosion, and the resulting sedimentation." (Shy et al. 2007)

Additional consideration was given to subbasins within a subset of the watersheds flowing directly onto the Reservation that are proposed to be crossed by the reroute. This entailed assessing whether any of these subbasins are close to the geomorphic tipping points for channel stability identified by Verry (2004) (i.e., those that exceed 60% or greater agricultural and young forest land). This further analysis shows that the land use modifications

[27] Snow water equivalence (SWE) is the amount of water contained in snowpack.

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associated with the construction and maintenance of the proposed Project will have localized impacts that appear to diminish when effects are only evaluated at the larger watershed scale, suggesting instead that the hydromodifications caused by the proposed disturbance may have an outsized effect on channel stability in certain subbasins and potentially those subbasins downstream of them. This supports the Band's stance that that there will be an effect to water quality on Reservation from the proposed Project.

Furthermore, the removal of riparian vegetation has other known water quality impacts. Specifically, *the removal of vegetation from the banks of surface waters increases surface water runoff and water temperature and decreases woody debris input. Increased surface water runoff may increase the amount of ammonia directly entering the waterbody. Increased water temperature enhances the toxicity of ammonia. Reduced turbulence from less woody debris may decrease volatilization and oxygenation* (EPA, 2025).

Analysis from staff at the Great Lakes Indian Fish and Wildlife Commission of surface water quality impacts from mining shows that water quality impacts can carry downstream long distances. GLIFWC staff have testified to this in two different CWA 401(a)(2) hearings—once for the Fond du Lac Band of Lake Superior Chippewa in their Will Effect hearing regarding the NorthMet (a.k.a. Polymet) mine, and the second time for the Bad River Band regarding ACOE's Utility and Minor Discharge Regional General Permits. Specific to this Project GLIFWC points out:

"*Evidence for the concern that activities in the headwaters can generate contaminants that move for large distances downstream is found in water quality samples. This map [Figure 1] of the St. Louis River watershed shows work that GLIFWC did using MPCA specific conductance data. Specific conductance is a very useful parameter because it measures the number of ions in the water. In other words, it's a general measure for dissolved constituents in the water column that can include sediment, metals, salts, etc. The large blue-green dots near the taconite mines in Minnesota, represent water quality samples with higher specific conductance and the dots get smaller with distance from the mines as the contaminant plume is diluted.*

This concentration and distance relationship for specific conductance is statistically significant. The dark blue dots on this graph [Figure 2] are MPCA samples from the St. Louis River and the regression line indicates that the mining water quality signal persists downstream of the mines for 200 kilometers or 124 miles." (Esteban Chiriboga, GLIFWC)

A key takeaway from this analysis is that distance from the reservation does not equate to compliance with reservation water quality standards. Land alterations anywhere upstream in the watersheds of concern can lead to degradation in water quality at the reservation boundary and/or Lake Superior. Additionally,

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the St. Louis River watershed and the Bad River watershed are both HUC 8 watersheds so a general comparison between them is valid and commonly made.

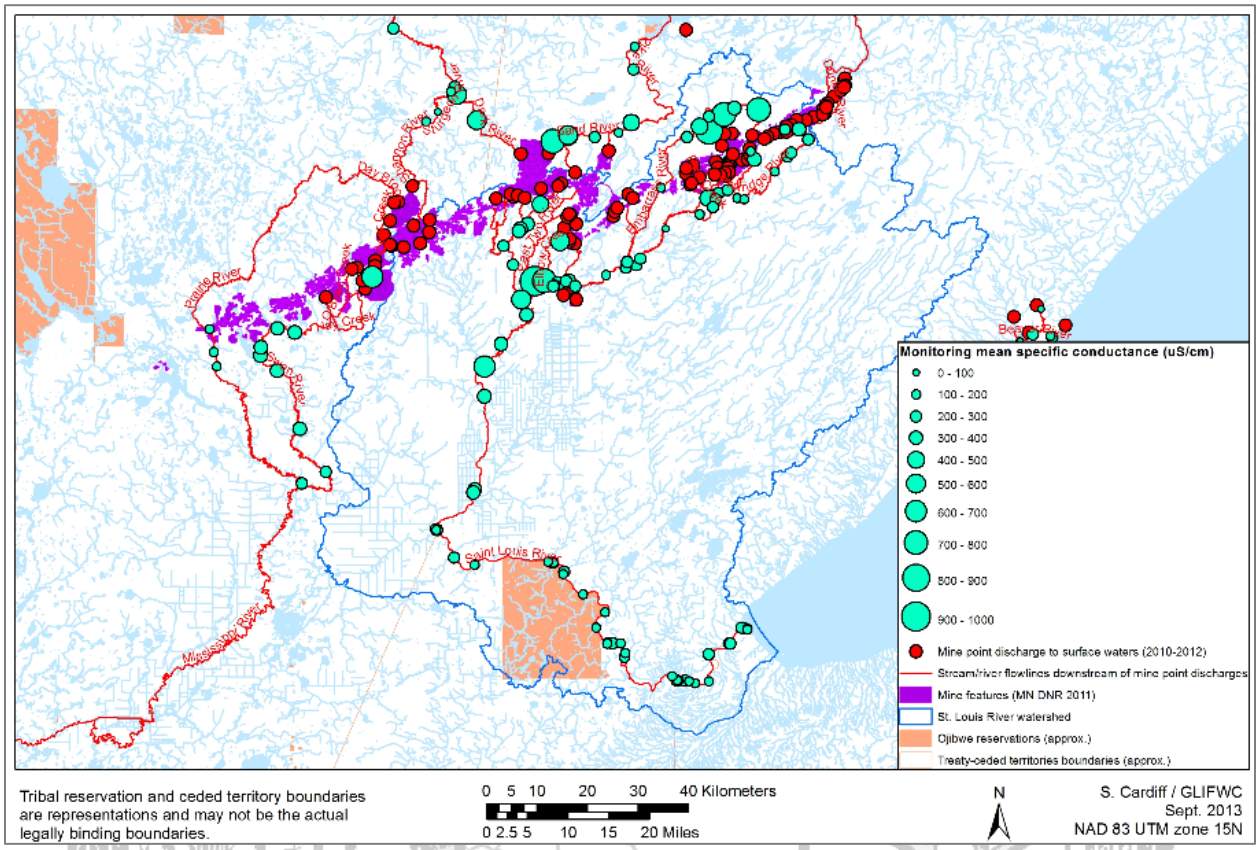

Figure 1. GLIFWC's map showing specific conductance data from the Minnesota Pollution Control Agency (MPCA) for stream downstream of mine point discharges.

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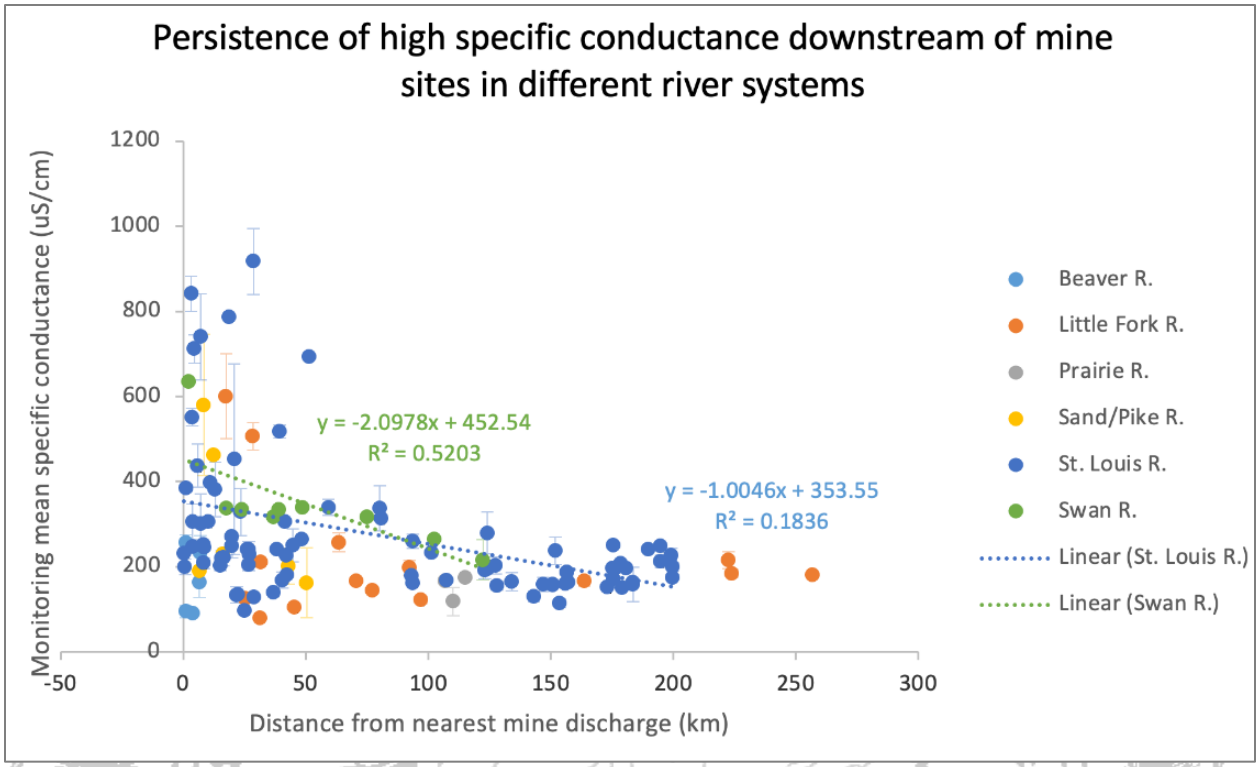

Figure 2. Graph showing persistence of high specific conductance downstream of mine sites in different river systems.

Groundwater-surface water interactions play a key role in the hydrology of the Bad River Watershed and the surrounding Lake Superior Basin. Impacts to current groundwater conditions by the proposed Project are of particular concern for numerous reasons, including changes to groundwater levels and flow paths that will impact the designated and existing uses in wetlands and watercourses that are receiving waters. Further, the introduction and/or mobilization of pollutant discharges that will impact surface water quality (Map 4, Map 5, and Map 6) as mapped by LimnoTech (Attachment B to Band's 2024 Comment on Corps DCDD Comments).

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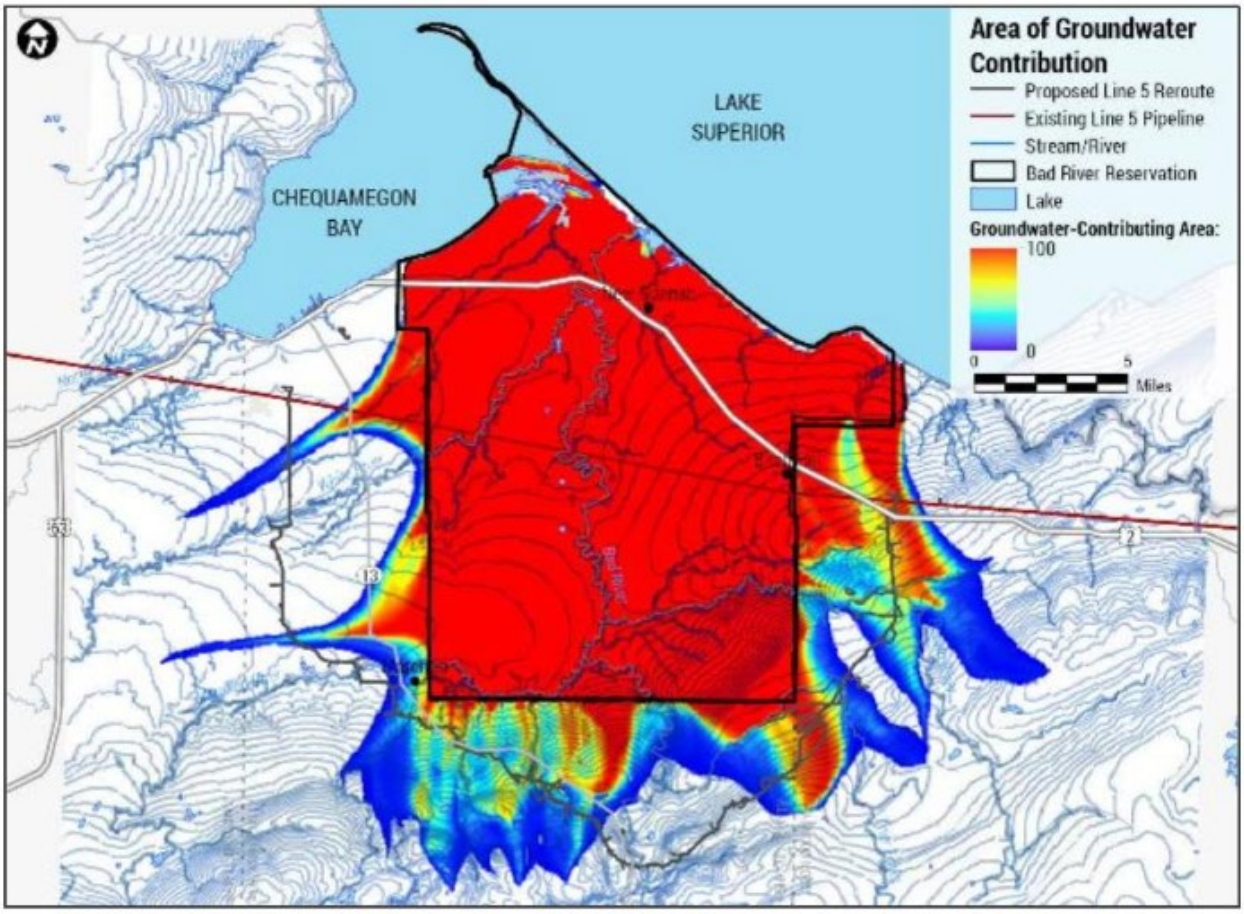

Map 4. The Project overlayed on the area modeled by US Geological Survey as contributing groundwater flow to the Bad River Reservation (Leaf et al., 2015).

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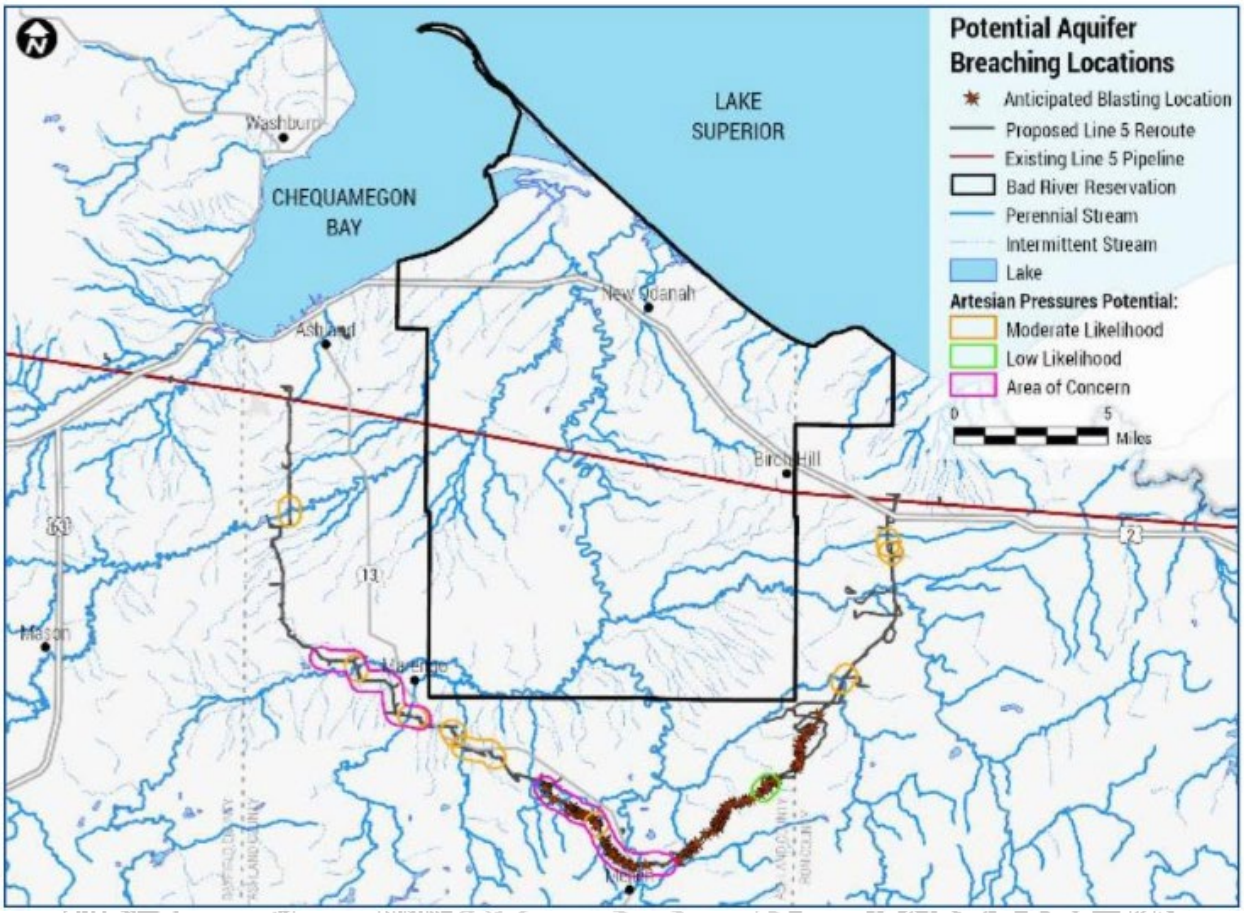

Map 5. The Project will impact the groundwater aquifer due to blasting and aquifer breaches, especially in the areas south and southwest of the Reservation in the Bad River headwaters. These Project activities will alter groundwater levels and flow paths, including groundwater-surface water interactions critical to surface waters such as groundwater-fed wetlands and cold-water streams. The Project will also discharge pollutants in blasting residue and mobilize naturally occurring minerals and substances that adversely affect water quality and uses.

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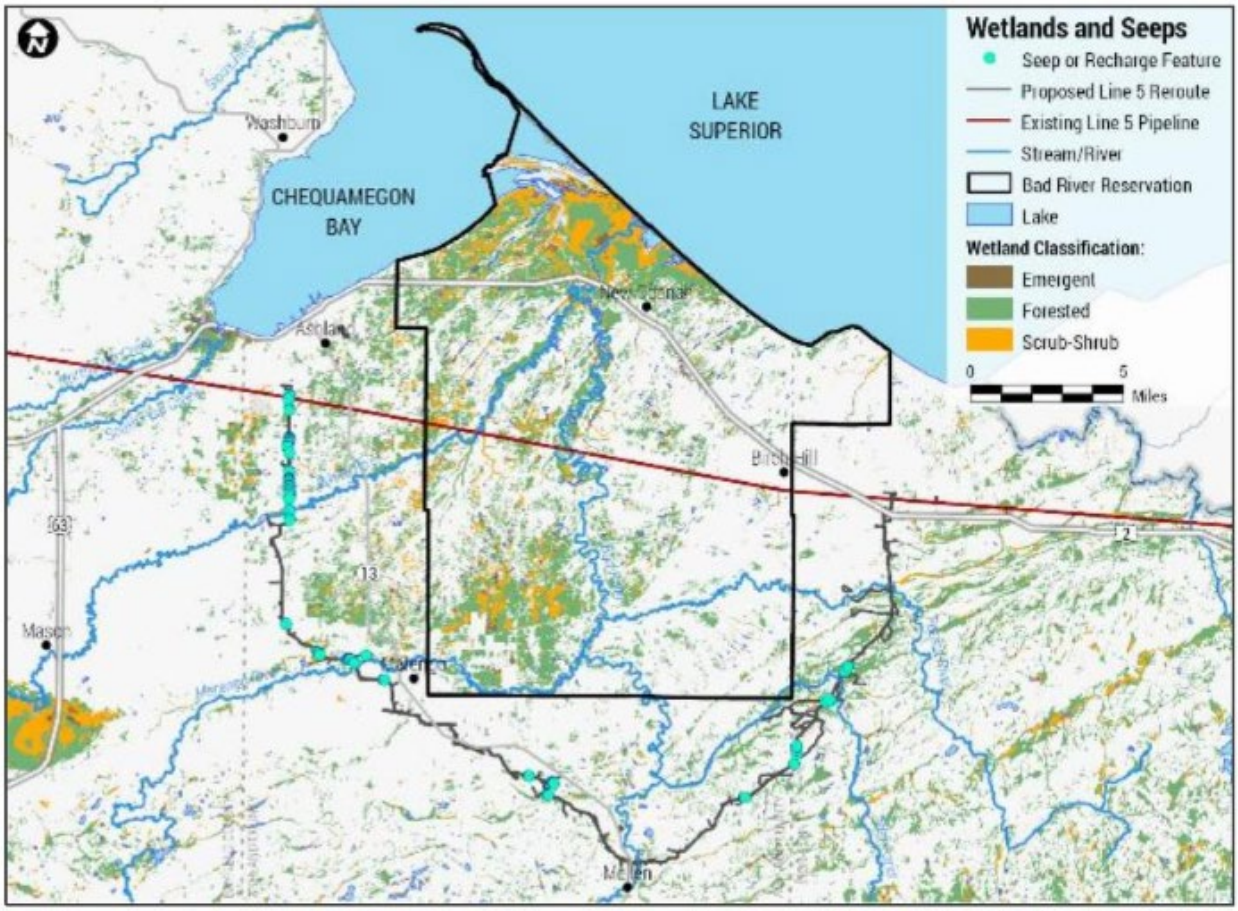

Map 6. The project will impact 90 areas where groundwater seeps and groundwater-influenced wetlands are located along the Project. Construction may either enhance or reduce groundwater flow in these areas, resulting in impacts on ecological resources, surface water quality, and aquifers. Seep data compiled from Enbridge's Wetland and Watercourse Impacts Table (version 2/28/2024) and the wetland delineations and wetland functional assessments in the 2020 and 2020 Supplemental Wetland Delineation Reports.

Other general discharges that are known to be associated with the Project that will impact water quality include:

- Discharges of dredged or fill materials into wetlands will cause degradation of surface water quality.
- Discharges into the White River (a Section 10 Navigable Water) will cause degradation of surface water quality.
- Permanent conversion of forested wetlands into non-forested wetlands with different functions and uses will cause degradation of surface water quality.
- Discharges of stormwater from construction sites (approximately 930 acres) will cause degradation of surface water quality.
- Discharges of drilling fluid—including proprietary chemical additives in these fluid—during an inadvertent release (IR) from HDD,

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directional drills (DD), and road bores (RB) will cause the degradation of surface water quality (Figure 3).

- The Band's outside experts reviewed the HDD IR sediment discharge water quality effects projected by Enbridge's consultant, RPS Group, Inc.,[28] and found four significant shortcomings in addressing the potential for an exceedance of the Band's water quality standards resulting from an HDD IR. This is of particular concern given the prevalence of IRs, including the documented 28 IRs at 12 of the 19 (63%) HDD-installed water crossings along Enbridge's Line 3 pipeline installation in Minnesota (Watch the Line MN, 2021) and Enbridge's admittance on their website that "Inadvertent returns are not unusual or unexpected" (Enbridge, 2021). WDNR admitted in its permit and certification decision documents that IRs are "likely" as part of the Project.[29] Summarily, neither Enbridge, ACOE, or WDNR has done the due diligence needed in analyzing impacts from an IR on the Band's water quality, especially in streams that are not the Bad River herself, upon which most of the current modeling is incorrectly extrapolated.

- Discharges of sediment from destabilized soils will cause the degradation of surface water quality. This includes activities associated with the grading of stream banks and steep slopes, the trenching along the centerline, the blasting of bedrock, the placement and removal of matting, dewatering (especially into wetlands), the removal of woody vegetation on slopes, disturbances from HDD, DD, and RD activity, and accessing remote sites during the restoration phases of the Project.
- Discharges of groundwater with elevated specific conductance due to aquifer breaches that will cause the degradation of surface water quality.
- Discharges of blasting residue and naturally occurring substances mobilized by the Project will cause the degradation of surface water quality.

[28] "Construction Assessment: Sediment Discharge Modeling Report" (RPS, 2023) Appendix 7 of Enbridge's Environmental Assessment prepared for the ACOE.[29] WDNR, Finding of Fact 60.j. in Waterway and Wetland Individual Permit Decision, p. 39 & Water Quality Certification Decision, p. 43 (Nov. 14, 2024) (https://dnr.wisconsin.gov/sites/default/files/topic/EIA/Enbridge/FINAL%20Enbridge.L5R.ch_.30.ch_.281.permit.decision.pdf; https://dnr.wisconsin.gov/sites/default/files/topic/EIA/Enbridge/Final%20Enbridge.L5R.WQC_.pdf).

[29] WDNR, Finding of Fact 60.j. in Waterway and Wetland Individual Permit Decision, p. 39 & Water Quality Certification Decision, p. 43 (Nov. 14, 2024) (https://dnr.wisconsin.gov/sites/default/files/topic/EIA/Enbridge/FINAL%20Enbridge.L5R.ch_.30.ch_.281.permit.decision.pdf; https://dnr.wisconsin.gov/sites/default/files/topic/EIA/Enbridge/Final%20Enbridge.L5R.WQC_.pdf).

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- Discharges of sediment from disturbed soils and improper or failing best management practices during construction and after construction as restoration fails or the existence of the pipeline corridor makes a preferential route for motorized recreational vehicles.
- Discharges of fuel and/or other fluids from equipment use, maintenance, and malfunctions can cause degradation of surface water quality.

Figure 3. Workers clean up following an HDD inadvertent release of approximately two million gallons of drilling fluid into a wetland while drilling under the Tuscarawas River as part of the Rover pipeline project in Ohio (Photos source: Ohio EPA, 2017).

2. Examples of Specific Waters Impacted

This section provides examples of specific waters impacts; however, it is not a comprehensive list of all waters that will be impacted by the Project nor a comprehensive discussion of all the water quality impacts from the Project. For example,

a) Impacts on Vaughn Creek and Associated Wetlands and Tributaries

Vaughn Creek, an Outstanding Resource Water, and four of her tributaries plus associated headwater wetlands will be impacted by the Project.

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Vaughn Creek herself will be crossed by HDD and her tributaries will be impacted by the placement of mats, grading of stream banks, trenching, dewatering, and other activities within the proposed access road and workspaces of the project. Forested wetlands such as wira1007f, wird1011f, and wird015f will be adversely impacted by the project, including from large workspaces needed for the false right-of-way ("ROW") for the HDD. Other wetlands, like wird018e visited by MNRD and GLIFWC while with WDNR, is a beaver impoundment along Vaughn Creek Tributary sird009p that will have to be drained before the creek can have dams installed to isolate the workspace when trenching through these water resources. These activities will greatly impair wetland function and will cause discharges. Additionally, wird018e had seeps coming out of the eroded clay banks of the wetland which correspond with observations of artesian flow in geotechnical drilling bore hole 46WB and the groundwater found at "depths ranging between 9 ½ to 45 feet below the ground surface in Borings 82-C-1, 46WB, and 83-1-C" as documented in the *Subsurface Investigation Report Enbridge Line 5 Reroute MP 39 HDD Crossing – Vaughn Creek*. This level of groundwater and surface water interaction in the Vaughn Creek area makes it even more likely that proposed activities will negatively impact surface water quality.

As discussed above, consulting experts, have modeled that the conversion of landscape to grass/herb landcover with associated soil compaction resultant from the use of timber matting and heavy machinery will increase discharge (from a 2-year, 24-hour storm event). In Vaughn Creek the difference from pre-disturbance conditions was calculated to be 1.02%, which is an increase of approximately 1.51 cfs at the Reservation boundary.

b) Impacts on the Potato River and Associated Wetlands and Tributaries

Impacts to the Potato River, whom is an Outstanding Tribal Resource Water on-Reservation, are also of particular concern. The proposed project centerline and access roads to the centerline traverse many wetlands, watercourses, and drainages with a direct hydrological connection to the river, as well as the river herself. GLIFWC, MNRD, and Thompson staff have all visited the areas of public lands associated with the Potato River HDD. The HDD path will cause the removal of old growth white cedar from within the floodplains south of the river and forests on the north side of the river, including from wetlands wira016f, wird001f, wird003f, and wirc1002f. Old oxbows, drainage features, and other microtopography like sand deposits, drift lines, and scour holes in the floodplain were evident in field visits, but not well-identified in Enbridge's data collection, which means some of these features creating preferential flow paths for contaminants may not have been considered in decision-making. For example, Access Road 092 requires approximately 800 sq. ft. of bank

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grading along Coil Creek and in her adjacent wetlands (wirv004s and wirv005e1) to replace an existing bridge with a larger temporary bridge to allow Enbridge access to the southern end of the Potato River HDD. The impacts associated with the Coil Creek bridge are only 3.37 river miles upstream of the Reservation and not only include the impacts from the bridge but impacts to 0.436 acres of wetlands along its 1.47-mile length (impacts would include degradation of wetland functions, matting, forest clearing, and grading). While some of the wetlands are undervalued in Enbridge's data (being ranked as overall "Low" functional value while having individual values that scored higher) other of these wetlands have been ranked high in floristic integrity, wildlife habitat, flood and stormwater storage, and groundwater processes—processes that when they're impacted will lead to the degradation of water quality in adjacent resources, including tribal waters. Additionally, the proposed HDD crossing of the Potato River is only 4.33 river miles upstream of the Reservation boundary and releases of pollutants from activities along the centerline (such as the release of drilling fluids in inadvertent releases, the release of sediments from land disturbances like the removal of vegetation, the use of heavy machinery, and the placement/removal of matting) are easily within the distance impacts can carry downstream (as described in "Discharges" section of this letter). Consulting experts raised concerns regarding higher risks of fluid loss associated with longer and deeper HDD runs, such as the proposed HDD crossing at Potato River, which is the third longest proposed HDD and the longest time estimate (98 hours). Additionally, consulting experts LimnoTech flagged concerns related to the feasibility of the Potato River HDD that came from Enbridge's own documents including: "Transitioning from soil to bedrock at depth carries a risk of hole misalignment", "Of more concern at this location is the intensely fractured nature of volcanic bedrock", "Reaming a hole through highly fractured rock may cause the overlying rock to collapse", "It can also be difficult to maintain drilling fluid circulation in highly fractured formations", and "We anticipate that this will be a challenging crossing". (Attachment B to Band's 2024 Comment on Corps DCDD). Consulting experts modeled impacts from IRs at different volumes and found that the 10,000 gallon and 30,000 gallon modeled IR releases, accounting for shortcomings of those modeled by RPS and those seen in Line 3, are projected to exceed the allowable threshold for increased turbidity under the Band's water quality standards. This is in-part due to the short distance between the HDD and the boundary of the Reservation (Map 7), the sufficiently high mean annual flow rate for the river, and the corresponding flow depth.

As discussed in the "Discharges" section above, consulting experts also modeled that the conversion of landscape to grass/herb landcover with associated soil compaction resultant from the use of timber matting and heavy machinery will increase discharge (from a 2-year, 24-hour storm

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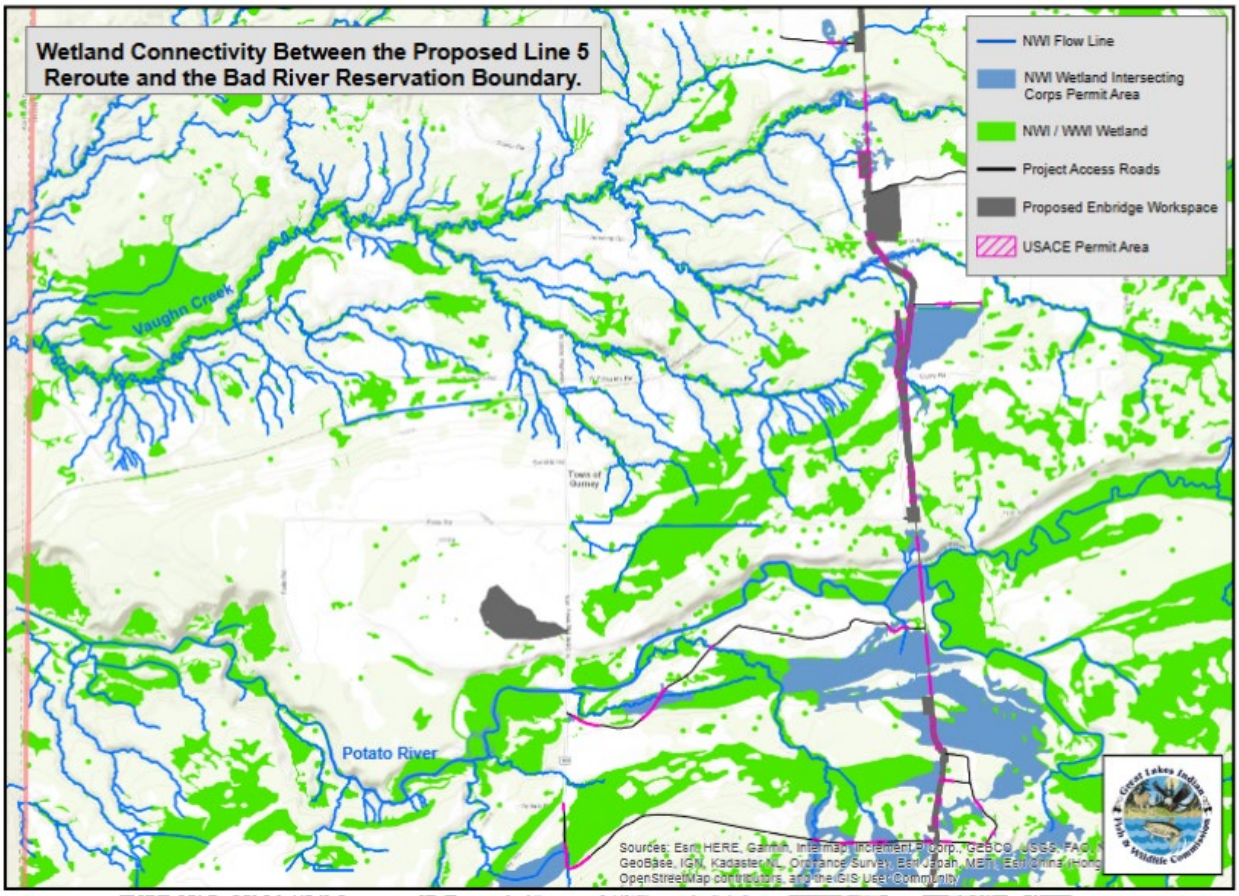
event). In Potato River the difference from pre-disturbance conditions was calculated to be 0.06%, which is an increase of approximately 1.47 cfs at the Reservation boundary. Vaughn Creek, a major tributary of Potato River, is also expected to see similar increases, which has a compounding effect to impacts downstream on the Reservation.



Map 7. Hydrologic connectivity between the Reservation boundary (pink line to the east side of the map) and wetlands and watercourse crossed by the proposed Project including Vaughn Creek and Potato River. Map courtesy of the Great Lakes Fisha and Wildlife Commission.

Potato River and some of her tributaries are cold-water trout streams, such as Vaughn and Winks Creeks. Although Winks Creek flows within the Reservation boundaries and is not directly crossed by the Project, this groundwater-fed stream may be affected by the Project due to her hydrologic connection to waters – including the groundwater aquifer - impacted by the Project. Blasting, aquifer breaches, and other Project activities will alter flow paths, groundwater levels, and groundwater-surface water interactions. Winks Creek – along with other portions of Potato River watershed and other 10-digit HUC watersheds – flow within the areas where USGS modeled groundwater reach contributions from off-Reservation, upstream and to the east and south of the Reservation (Map 4). During the July 2016 flood, a road adjacent to Winks Creek was

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washed out due to both elevated groundwater and surface water flows (Figure 4). The washout of the road at Winks Creek (which prior to the 2016 flooding was a creek barely noticeable from the road) resulted in a permanent reroute around the washout and the groundwater seeps within (Figure 5).

Figure 4. Winks Creek, a cold water trout stream within the Bad River Reservation, was impacted during the July 2016 flood by elevated groundwater and surface water flows. Photo showing washout of Winks Creek taken on September 20, 2016 by MNRD staff.

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Figure 5. Winks Creek as if flows from the washout in 2023, seven years after the storms that contributed to the mass wasting failure at the road and erosion still apparent on the banks downstream.

The existing condition of Potato River on the Reservation, is discussed in more detail in the "Existing Conditions of Surface Water" section of this letter.

c) Impacts on Tyler Forks River and Associated Wetlands and Tributaries

Of particular concern for impacts are Tyler Forks River, an Outstanding Resource Water flowing through the southeast corner of the Reservation, due to the multiple pathways for pollutants to enter her waters from the Project upstream (Map 8), including through the extensive drainageways and flowpaths that intersect the proposed workspaces on the south side of the river as mapped by MNRD and staff from Thompson and Associates, Wetland Services and documented in the Thompson Report dated April 20, 2023 titled *Addendum to Review of Enbridge Line 5 Wisconsin Segment Relocation Project Field Review, September 26-27, 2022* (Attachment A to Band's 2024 Comment on Corps DCDD). More

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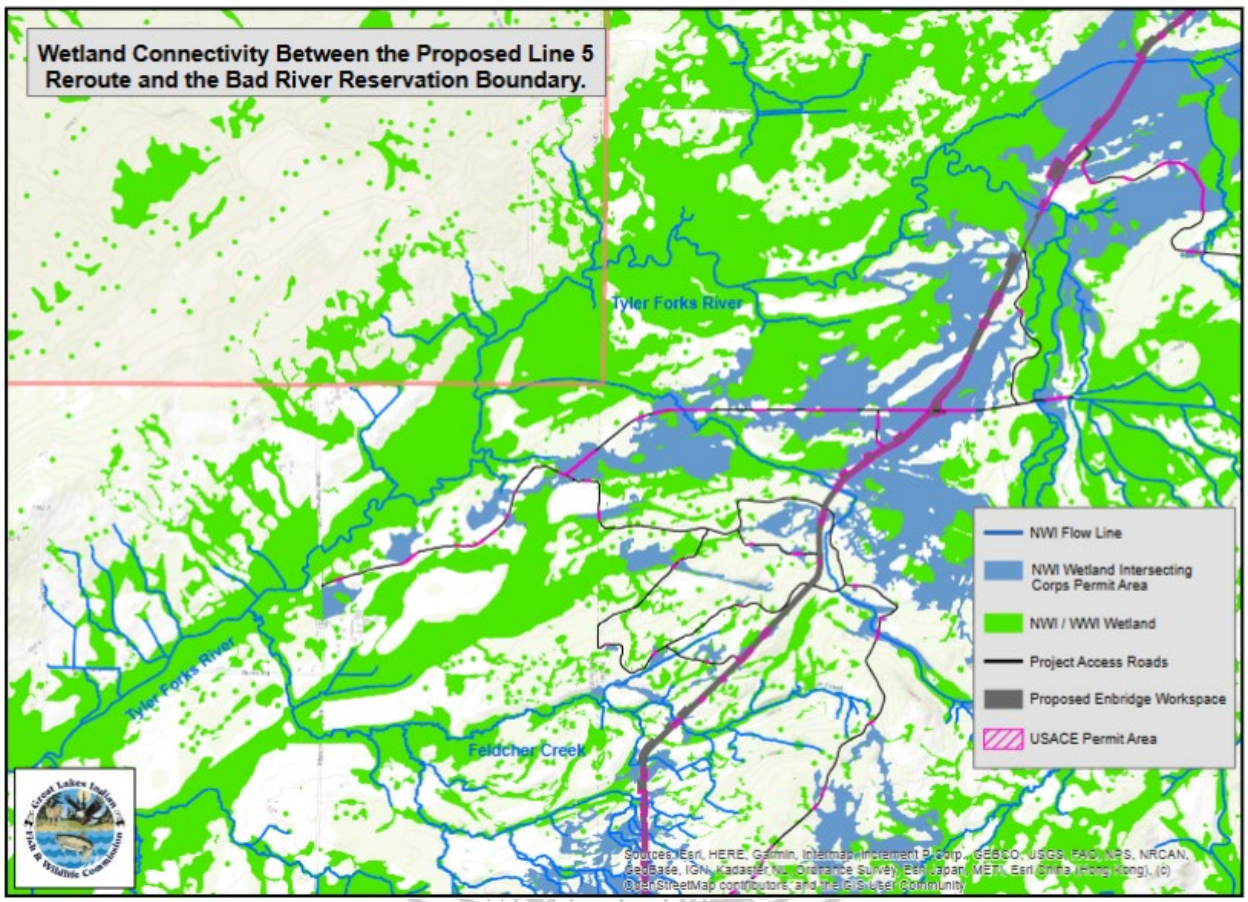
specifically, between mileposts 33.8-34.0[30] there are more drainageways and flow paths flowing north towards the river than are shown on Enbridge's maps, such as Map 84. One drainageway extending into the horizontal directional drilling (HDD) corridor was only partially mapped by the company and is actually much longer than what is represented, whereas another drainageway was missing. Additionally, a forested upland workspace on the west side of the proposed corridor near milepost 34 is either adjacent to or intersecting of another drainageway that makes the release of pollutants in this workspace have a more direct connection to Tyler Forks, especially during snowmelt and/or rain events.



Map 8. Hydrologic connectivity between the Reservation boundary (pink line to the east side of the map) and wetlands and watercourse crossed by the proposed Project including Tyler Forks River. Map courtesy of the Great Lakes Fisha and Wildlife Commission.

On the north side of Tyler Forks River, impacts to Vogues Creek and her wetlands wirc019f and wirc019e from the construction of the proposed

[30] Please note that due the changes in route and alignment of the proposed pipeline centerline through the numerous years of commenting on this Project, that even with our best efforts, references to map numbers and milepost numbers may be slightly off. However, this does not mean our on-the-ground information of existing conditions is inaccurate.

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access road and equipment using it will also flow directly into Tyler Forks. Field observations made by MNRD/Thompson found standing water in the wetlands (Figure 6) and old logging trail along with groundwater signatures and driftlines up 21 inches high when reviewing the area in July 2023.

Figure 6. Bur-reed (Sparganium spp.) and standing water in wetland wird019e connected to Tyler Forks River.

Additionally, impacts along the centerline, especially in wetland wirc013f where the pipeline will be installed by trenching, will contribute pollutants to Tyler Forks River. MNRD and Thompson have visited this wetland throughout different summer months for the last three years, and have consistently observed standing and/or moving water and springs and/or seeps. Construction through this wetland will require enormous amounts of dewatering which will put severe loads on the wetland and water paths, carrying pollutants with it into Tyler Forks. Additionally, the current extensive microtopography, seeps and springs, and intact coniferous swamp ecosystem will be impossible to restore to pre-construction conditions resulting in long-term damage to the hydrology and soils of the wetland and a continual source of pollution to Tyler Forks. "*Substantial leakage from the Tyler Forks River into the groundwater system is potentially important for the water resources of the Reservation because it forms a potential source for contamination of the groundwater system, with implications for the Potato River subbasin. Reduction of base flow in the Tyler Forks River during dry periods could also result in a decrease or*

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cession of leakage, and a corresponding decrease in groundwater levels near the river." Leaf et al.(2015) This means that any contamination entering the Tyler Forks River has the potential to migrate into the groundwater system and, therefore, the other water resources of the Reservation.

These impacts to Tyler Forks River as discussed above, either directly or indirectly through either connected streams like Vogues Creek or wetlands like wirc013f, would enter the river between 2.37 and 3.08 river miles upstream of where the river flows onto the Reservation. Additional impacts from access roads and centerline activity will also impact Tyler Forks upstream and downstream of the locations discussed here. Additionally, unlike the other HDD bore paths being 30-feet wide, Tyler Forks will have a wider bore path crossing of 50 feet wide with a 100-foot wide workspace on either bank of the river. The existing condition of Tyler Forks on the Reservation, is discussed in more detail in the "Existing Conditions" section of this letter.

d) Impacts on Trout Brook, Billy Creek,[31] Silver Creek, Tributaries, and Associated Wetlands

Trout Brook and Billy Creek, both Exceptional Resource Waters, plus one tributary of Billy Creek (sasc1014p), are proposed to be crossed by two different HDDs just south of Highway 13 and approximately 1.64 miles south of the Reservation boundary. However, to complete these HDDs four tributaries to Billy Creek (sasc1014p, sasc026e, sasb1005i, and sasc025i) will need to be matted and crossed in multiple locations as they fall within the proposed ROW needed for drilling. We raised specific concerns about the Billy and Trout Creek HDDs and the under documented impacts in Attachment E to Band's 2024 Comment on Corps DCDD. We also raised specific concerns about the HDD proposed to cross Silver Creek in Attachment B to the Band's 2024 Comment on Corps DCDD as higher risks of fluid loss are associated with longer and deeper HDD runs, such as this one, which is the second longest proposed HDD crossing. Plus, the feasibility assessment for this HDD is referred to as a "significant and challenging crossing," with high risks of hydrofracture. Consulting experts modeled impacts from IRs at different volumes and found that the 10,000 gallon and 30,000 gallon modeled IR releases, accounting for shortcomings of those modeled by RPS and those seen in Line 3, are projected to exceed the allowable threshold for increased turbidity under the Band's water quality standards for Trout Brook at the point she enters the Reservation at flows of 45 cubic feet per second (cfs) and even 15 cfs in some release scenarios. Similarly, though Billy Creek

[31] As there are two Billy Creeks within Marengo River Watershed and within the Bad River Reservation, the Billy Creek discussed in this section is the Billy Creek who is a cold water fishery and flows through Township 46 North, Range 3 West, Section 32.

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would not be projected to see an exceedance at the mean annual flow rate of approximately 3 cfs, just a slightly higher flow rate of approximately 10 cfs would likely carry suspended sediment far enough downstream to cause an exceedance to the Band's water quality in the creek. While consulting expert analysis does not include stream sas1010i, it is also crossed by the HDD for Highway 13 within the watershed identified as "Unnamed_4 or WBIC 2915100)" in Table 1.

As discussed above, consulting experts modeled that the conversion of landscape to grass/herb landcover with associated soil compaction resultant from the use of timber matting and heavy machinery will increase discharge (from a 2-year, 24-hour storm event). In Billy Creek, Trout Brook, Silver Creek (also on Exceptional Resource Water), and some of the smaller unnamed tributaries in this area, these increases from pre-disturbance conditions range from 0.10% to 4.23% (Table 1) at the Reservation boundary. These streams are also tributaries to the Brunsweiler and Marengo Rivers who are also expected to see increased discharge of varying amounts, which has a compounding effect to water quality impacts downstream on the Reservation.

Table 1. Results for post-construction predicted 2-yr/24-hr discharge for grass/herb modeling scenarios.

Watershed Name (WBIC @ Reservation)	Post-Construction Discharge (% difference)	Post-Construction Discharge (increase cfs)
Billy Creek	0.90%	0.51
Trout Brook	0.10%	0.41
Silver Creek	0.69%	1.54
Unnamed_1^ (5002255)	1.26%	0.11
Unnamed_2 (5002258)	0.48%	0.03
Unnamed_3 (2913500)	4.23%	0.89
Unnamed_4* (2915100)	0.23%	0.17
^Connected to wasc1028e in the proposed workspace. *Connected to sasc1006p, wasc1033s, sasa1028i, wasa1072f, sasc1010i, and wasc1036s.		

e) *Impacts to Brunsweiler River and Associated Wetlands and Tributaries*

Brunsweiler River, is an Outstanding Resource Water both on and off the Reservation. Brunsweiler River is proposed to be crossed with an HDD just south of County Rd C west of Highway 13. There are wetlands

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adjacent to and nearby the river (wasc1052s, wasa1005s, wasa1006f, wasc1030e, and wasc1028e) and an unnamed tributary sasa1006i that will also be crossed by the HDD bore path. MNRD, GLIFWC, and EPA staff visited the Brunsweiler River nearby the proposed HDD crossing on 8/29/23 and observed forested wetlands within the river's broad floodplain (Figure 7).

Figure 7. Brunsweiler River nearby the proposed Project crossing, upstream from County Highway C.

As discussed above, consulting experts modeled that the conversion of landscape to grass/herb landcover with associated soil compaction resultant from the use of timber matting and heavy machinery will increase discharge (from a 2-year, 24-hour storm event). In Brunsweiler River the difference from pre-disturbance conditions was calculated to be 0.01%, which is an increase of approximately 0.15 cfs at the Reservation boundary. Four other streams that are tributaries of Brunsweiler River, are also expected to see increase discharge of varying amounts, which has a compounding effect to impacts downstream on the Reservation not only to the Brunsweiler River but also to the Marengo River, an Outstanding Resource Water to whom Brunsweiler is a major tributary.

Higher risks of fluid loss are associated with longer and deeper HDD runs, such as the HDD proposed to cross Brunsweiler River. LimnoTech in their DCDD comment (Attachment B to Band's 2024 Comment on Corps DCDD) also flagged a Barr Report[32] which raise concerns about high risks of aquifer breaching and hydrofracture at the Brunsweiler River crossing as well as flagging that this is a known artesian spring area (Figure 8).

[32] Barr Engineering. 2022. Results of the August 24-25, 2022 Regenerative Thermal Oxidizer Compliance Tests at Saint-Gobain Performance Plastics in Merrimack, New Hampshire. https://www4.des.state.nh.us/OneStopPub/Air/330110016522-0048TypeSTReport.pdf

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Consulting experts modeled impacts from IRs at different volumes and found that the 10,000 gallon and 30,000 gallon modeled IR releases, accounting for shortcomings of those modeled by RPS and those seen in Line 3, are projected to exceed the allowable threshold for increased turbidity under the Band's water quality standards for the Brunsweiler River at the point she enters the Reservation. This is in-part due to the short distance along the river between the HDD and the boundary of the Reservation, the sufficiently high mean annual flow rate for the river, and the corresponding flow depth.

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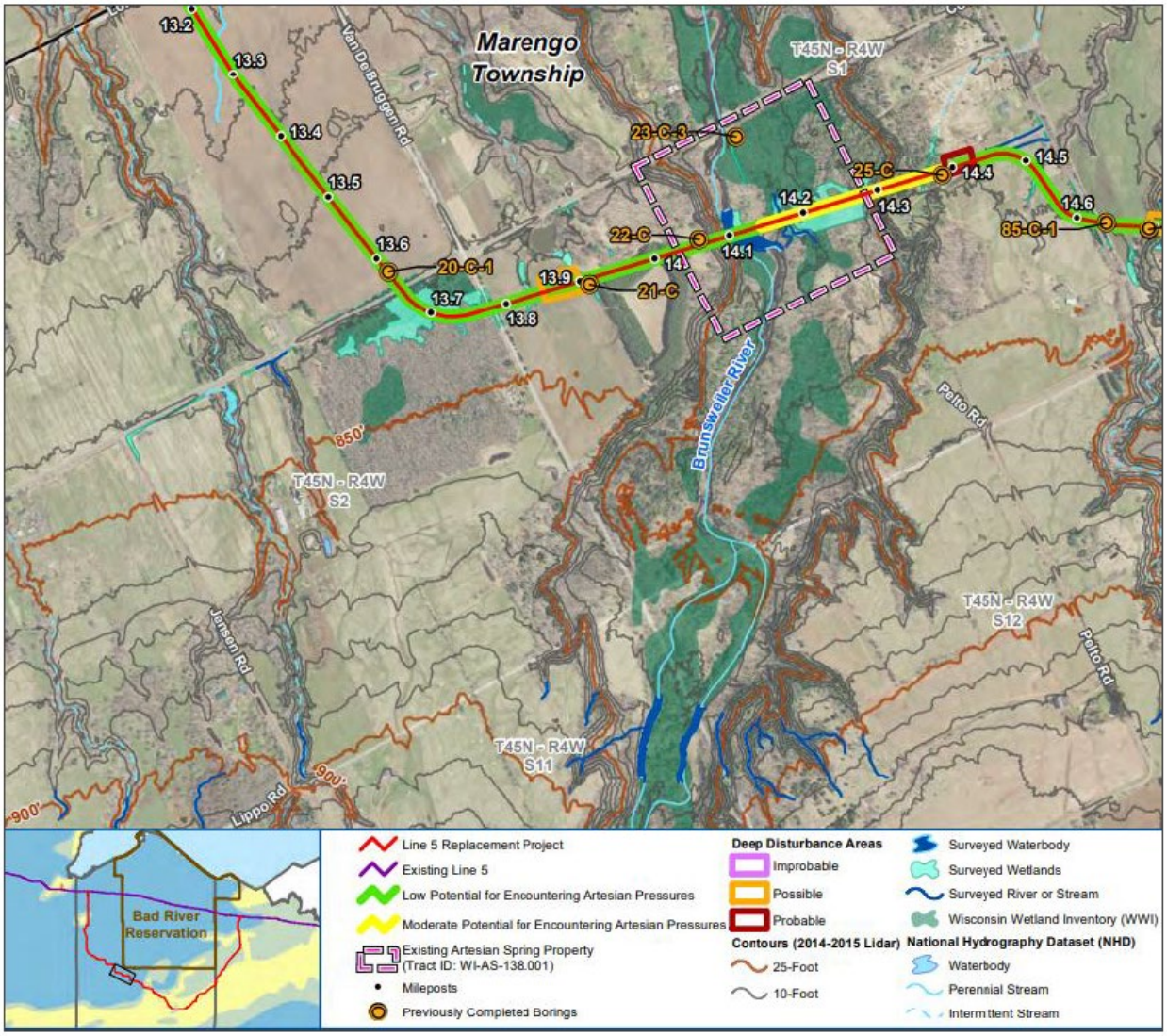

Figure 8. LimnoTech's reproduction of a figure from Appendix 18 of the EA showing an L5R segment (yellow) with elevated potential for aquifer breaching between mileposts 14.1 and 14.4, as well as an area (pink dashed box) described as "Existing Artesian Spring Property".

f) Impacts on White River and Associated Wetlands and Tributaries

White River, an Outstanding Resource Water, is proposed to be crossed by HDD just east of Highway 112 and downstream of the hydroelectric dam and approximately 4.18 miles upstream (west) of the Reservation boundary. The White River is a Navigable River at this location under Section 10 of the Rivers and Harbors Act. The proposed HDD is in the middle of the Lake Sturgeon spawning grounds. Turbidity and sedimentation are detrimental to Lake Sturgeon recruitment and an IR of any size could potential degrade this important habitat. Furthermore, higher risks of fluid loss are associated with longer and deeper HDD runs, such as the HDD proposed to cross White River, which is the longest

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proposed HDD crossing and one described as a "significant and challenging crossing." Plus, other concerns about the White River HDD were raised in Attachment B to Band's 2024 Comment on Corps DCDD.

MNRD, GLIFWC, and EPA staff visit the White River at the proposed crossing (Figure 9), coming in from a steep hike in from the south, on August 30, 2023. Along the way MNRD and GLIFWC staff observed multiple culturally important plant species and evidence of (i.e., tracks) of wolves along the access corridor. There are multiple wetlands that will also be in the path of the drilling, including the riverine floodplain wetland wasa1054, a floodplain forest with a high functional value that will have 0.39 acres permanently converted to cleared and maintained corridor. Additionally, there are multiple watercourse that are intercepted by the proposed HDD corridor, including sasa1023i which will be crossed twice and is meanders through wasa1054 and drains its headwater wetland wasd021f which is impacted both by the HDD corridor and a larger temporary workspace (0.59 acres of the forested wetland will be impacted by workspace with 0.28 acres being permanently converted). Oddly enough while the wetland has been ranked an overall "Medium" for its functional value and been given a "low" score for groundwater processes, the wetland delineation documents states that it receives groundwater from a seep.

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Figure 9. Photograph of the White River looking downstream at the location of the proposed HDD crossing.

g) Impacts on Bear Trap Creek and Associated Wetlands and Tributaries

Bear Trap Creek, an Outstanding Resource Water when first entering the Reservation with her most downstream reach where wild rice grows as an Outstanding Tribal Resource Water, is proposed to be crossed by trenching south of Hegstrom Road and west of Beaser Road and 8.6 river miles upstream of where it enters the western side of the Reservation. Bear Trap Creek is relatively incised at the proposed crossing, sitting approximately 18-20 feet below the surrounding landscape with a floodplain shelf on either side of the creek. The proposed pipeline corridor will run adjacent to a high voltage transmission line resulting in an even wider portion of cleared bank along the creek. Staff from MNRD, GLIFWC, ACOE, and EPA visited the site on 8/30/23, documenting water within the stream and drift lines in the shrubs at multiple levels, including above head height (Figure 10 and Figure 11). There was also a rudimentary bridge that had washed out during high flows and was hung-

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up in the trees downstream. Trenching through this topography with the stream exhibiting such flashy flows, especially adjacent to an area where native vegetation has already been cut back will make it extremely difficult to restore. Downstream of the proposed pipeline crossing Bear Trap Creek is impaired by inadequate stream crossings that impede the movement of aquatic life such as the culvert approximately 9 inches above the water[33] in Figure 12.

Figure 10. Steve Garske, GLIFWC, pointing at debris caught in the shrubs along Bear Trap Creek.

[33] Perched culvert, like the one at Hegstrom Road, could skew sampling results for the surface water samples collected per Enbridge Water Quality Monitoring Plan proposals.

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Figure 11. Steve Garske, GLIFWC, pointing at debris caught in the shrubs along Bear Trap Creek with the creek in the background.

Figure 12. MNRD staff at the crossing for Beartrap Creek at Hegstrom Road where the pictured culvert was approximately 9 inches above the surface of the creek.

As discussed above, consulting experts modeled that the conversion of landscape to grass/herb landcover with associated soil compaction resultant from the use of timber matting and heavy machinery will increase discharge (from a 2-year, 24-hour storm event). In Bear Trap Creek the difference from pre-disturbance conditions was calculated to be

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0.22%, which is an increase of approximately 0.73 cfs at the Reservation boundary.

C. Other Top Concerns Related to Reroute Impacts

The above list of discharges and impacts in the previous section was not intended to be comprehensive, nor is the following list of additional concerns. However, we are included the below list as these additional impacts are not occurring in isolation from the discharges and impacts listed above, but in addition to the above impacts, which means that cumulatively the discharges impacting water quality could be exacerbated by these other impacts.

- HDD, blasting, and other Project activities causing changes to hydrology, including groundwater flow paths and the impacts this has on surface waters (e.g., Tyler Forks, Potato River, Vaughn Creek) and impacts to drinking waters (e.g., Birch Hill community well).
- Changes to wetland hydrology from trenching/crowning/compaction and other Project activities.
- The loss of forested and scrub-shrub wetlands can impact water temperatures, wetland function, invasive species migration, and flows within watersheds as well as having other impacts voiced in our earlier comment letters and elsewhere in this letter.
- Releases of drilling fluid can smother fish spawning beds, impact macroinvertebrate communities, and imbalance food webs.
- Cumulative and long-term impacts from the project that result from ongoing maintenance and operation of the pipeline along with the temporal loss of degraded landscapes that have not been fully restored post-construction.
- The introduction or elevation of contaminants of concern including PFAS/PFOS, mercury, and other chemicals from equipment failures, blasting, drilling fluid, and other spills.
- Impacts to already impaired waters or waters of concern can push these waters past or further past tipping points that result in long-term degradation, loss of uses, human health impacts, and expensive, perpetual restoration to watersheds where much of the burden falls on private landowners within the watersheds or public entities tasked with implementing the Clean Water Act.
- Threats of an oil spill. Although the Band is concerned about oil spills and the inadequacies of the Project's oil spill modeling, this topic is not the focus of this document. An oil spill will devastate the water quality, the health of those who are dependent upon the water quality, and the uses provided by the waters.
- Temperature changes to groundwater and surface waters along the Project from the heat of the operating pipe, especially in key wetland headwaters, will impact surface waters and their ecosystems both at the location of the centerline and downstream. These temperature changes accompanied by temperature changes that will result from the approximately 467 acres of upland and approximately 101 acres of wetland deforestation can cause significant degradation of surface water and damage designated uses of waterbodies.

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- Invasive species populations will increase as a result of this project which will decrease native species populations within wetlands and along waterways, resulting in changes in hydrology, impacts to habitat, and decreases in the water quality benefits provided by native species.

IV. NONCOMPLIANCE WITH BAND WATER QUALITY STANDARDS

A. The Band's Water Quality Standards – Noncompliance

Considering the direct and indirect discharges from the Project as conditionally certified by Wisconsin, it is expected that there will be non-compliance with the following Band's WQS:

1. Designated Uses [34]

- *F.1. Cultural (C1). Water-based activities essential to maintaining the Tribe's cultural heritage, including but not limited to ceremony, subsistence fishing, hunting and harvesting. This use includes primary and secondary contact and ingestion.*
  - The cultural designated use applies to all waters within the Reservation boundaries. All of the water resources crossed or impacted by the Project as described in the Overview of Surface Waters Impacted section above include waters connected to tribal waters with this designated use.
  - The cultural designated use includes ceremonial and other activities with primary contact and ingestion of surface waters. As discussed in more detail below, this Project will not adhere to water quality criteria that were derived to protect uses with primary contact and ingestion of the waters, such as criteria described in provisions E.6.i. and H.4. through H.7.
  - The cultural designated use also includes subsistence fishing, hunting, and harvesting activities dependent upon healthy surface waters and biological communities. As discussed in more detail below, this Project will not adhere to water quality criteria that were derived to protect the subsistence fishing, hunting, and harvesting uses, such as criteria E.6.ii.a., E.6.ii.c., E.7.iii., H.1. through H.3., and H.10.
  - The Cultural Designated use also includes culturally important species reliant on the water ways. Miigiizii (Eagles) are vulnerable to pollution due to biomagnification in the fish they prey upon. Other aquatic and semi aquatic organisms, such as amphibians and shore birds (such as

[34] Provision F of the Band's WQS describes the designated uses that apply to the surface waters within the Reservation boundaries and provision G provides the specific classification for the surface waters.

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federally endangered piping plovers[35]) rely on the water for foraging and/or reproduction. They utilize habitats that are vulnerable to pollution. As discussed in more detail below, this Project will not adhere to water quality criteria that were derived to protect this cultural use, such as criteria E.6.ii.e.

- *F.2. Wild Rice (W1). Supports or has the potential to support wild rice habitat for sustainable growth and safe consumption.*
    - The wild rice designated use applies to waterbodies, such as the Kakagon Slough, Sand Cut Slough, Bad River Slough, Wood Creek, and Beartrap Creek (not inclusive). Wild rice waters within the Reservation are connected to waters located in HUCs 040103011101 (Beartrap Creek – Frontal Chequamegon Bay), 040103020611 (Deer Creek-White River), and 040103020505 (Vaughn Creek) to name a few specific HUCs, though all waters in the 8-digit Bad-Montreal Watershed, aside from the Montreal River, flow directly into the Band's wild rice waters. The Project also impacts waters outside of the Bad-Montreal Watershed that are also hydrologically connected to the Band's wild rice waters, such as Bay City Creek, due to the nearshore Lake Superior connections previously discussed. As discussed in more detail below, the Project will not adhere to water quality criteria that were derived to support the health and use of manoomin (wild rice), such as criteria E.6.ii.c., E.6.ii.d., E.6.ii.e., E.6.ii.f., and E.7.iii.. Manoomin is sensitive to changes in hydrology, sedimentation, competition, scour, temperature and certain water chemistry changes (Day and Lee, 1988; Atkins et al., 1987; GLIFWC, 1999). Changes in water quality and hydrology resulting from the Project will adversely affect the wild rice use, including both the sustainable growth and safe consumption of manoomin.
- *F.5. Cold Water Fishery (F1). Supports or has the potential to support the existence of cold water fishery communities and/or spawning areas. No thermal discharge to such waters will be allowed.*
    - The Cold Water Fishery use applies to the following tribal waters: Potato River, Vaughn Creek, Winks Creek, Trout Brook, Tyler Forks River, and Billy Creek (T46N, R3W, Section 32). All these waterways except Winks Creek are directly crossed by the Project. Although Winks Creek is not

[35] The National Park Service (in their letter to the Corps dated August 29, 2024) raised the need for an assessment of the Project's impacts to the Apostle Island National Lakeshore including, but not limited to, the critical habitat for piping plovers located on Long Island/Chequamegon Point.

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directly crossed by the Project, this trout stream may be affected by the Project due to her hydrologic connection to waters impacted by the Project and the fact that construction can alter groundwater-surface water interaction flows as previously described.

- Cold-water fisheries are impacted by increased water temperatures, terrestrial habitat changes, changes in hydrology, excess sedimentation, turbidity, siltation, and other water quality pollutants (e.g., PFAS). Terrestrial habitat changes in a cold-water fishery change the energy dynamics in streams both abiotically and antibiotically. Clearing trees from the watershed increases water temperatures. Clearing trees also takes energy from lower trophic levels that cascade up the trophic levels. Leaves fall into the stream where macroinvertebrates break them down and others forage the remains fish eat these macroinvertebrates with trout diets comprising of above 90% macroinvertebrates.*F.6. Cool Water Fishery (F2). Supports or has the potential to support the existence of cool water fishery communities and/or spawning areas for at least a portion of the year.*
    - The Cool Water Fisheries use applies to tribal waterbodies such as Bad River, White River, Marengo River, Brunsweiler River, Bear Trap Creek, Meadow Creek, Silver Creek, and Kakagon-Bad River Sloughs complex. All of these waters except Meadow Creek and Kakagon/Bad River Sloughs complex are directly crossed by the Project. Although the Kakagon-Bad River Sloughs are not directly crossed by the Project, the water quality in the Sloughs complex will be impacted by the Project.
    - Cool-water fisheries are impacted by increased water temperatures, terrestrial habitat changes, changes in hydrology, excess sedimentation, turbidity, and siltation, and other water quality pollutants (e.g., PFAS).
- *F.10. Wetland (W3). An area that will be protected and maintained for at least some of the following uses: maintaining biological diversity, preserving wildlife habitat, providing recreational activities, erosion control, groundwater recharge, low flow augmentation, storm water retention, prevention of stream sedimentation, and the propagation of wild rice.*
    - The wetland designated use applies to all wetlands within the Reservation boundaries. Wetlands within the Reservation are connected to waters directly crossed by the Project.
    - As discussed in more detail below, the Project will not adhere to water quality criteria that were derived to support the wetland use and critical functions, such as criteria E.6.i.a-g., E.6.ii.a, E.6.ii.c. and E.6.ii.d.. The Project will adversely affect the wetland use.

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- Other designated uses contained in the Band's WQS are applicable to tribal waters that will be impacted by the Project, such as the aquatic life and fish, commercial, wildlife, and recreational designated uses. For example:
    - Many types of plants and aquatic organisms, such as freshwater mussels (Rosenberry et al., 2016) and turtles (Ultsch, 2006), are dependent upon consistent groundwater seepage during particular seasons of life stages.
    - Macroinvertebrate communities that will be impacted by sedimentation and other discharges will result in imbalanced food webs that then will no longer support other aquatic life and fish.
    - As discussed below, the Project will not adhere to water quality criteria derived to protect these existing uses.

- **Water Quality Criteria: Narrative and Numeric Standards.** These criteria apply to all waters of the Reservation (including wetlands) except as otherwise noted.
- *E.6.ii.a. Pollutants shall not be present in concentrations that cause or may contribute to an adverse effect to human, plant, animal or aquatic life, or in quantities that may interfere with the normal propagation, growth and survival of indigenous aquatic biota. For toxic substances lacking published criteria, minimum criteria or values shall be calculated by the Tribe or U.S. EPA consistent with procedures specified at 40 CFR 132 Appendices A, B, C and D.*
    - "Pollutant" is defined at 40 C.F.R. § 122.2. Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. § 2011 *et seq*.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.
        - Construction and maintenance activities will disturb soil, remove native species and shrub cover, and overall increase human activities in the area. These conditions will expand invasive species already on site or tracked in. This impact will persist beyond the lifetime of the Project and impact areas downstream or otherwise connected. As invasive species populations expand during construction, their seeds, a biological material and pollutant, will be discharged into the water at greater rates than prior to construction of this Project. When these biological materials are discharged into the water they will spread and degrade wetland and water quality by displacing native species that serve important roles in maintaining the current water quality.
        - The Project's construction also involves significant blasting primarily south of the Reservation (Map 5), which will

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release pollutants that can cause or contribute to an adverse effect on human, plant, animal, or aquatic life, such as radionuclides, asbestos, arsenic, and nitrates. Studies have shown that nitrate contamination can cause harm or death in fishes, amphibians and aquatic invertebrates (Wisconsin Groundwater Coordinating Council Report to the Legislature, 2004).

- A project with similar activities to this project have resulted in water quality impacts, including impacts to waters within the Reservation boundaries. For example, the construction of the Enbridge Check Valve project near the Meander (Attachment C) caused wetlands impacted by excess amounts of mud that negatively impacted amphibians and reptiles within the project area. Water quality was further impacted by the suitability of the wetland for any larval amphibians that may have hatched out in the spring is drastically reduced.

- *E.6.ii.d. Natural hydrological conditions supportive of the natural biological community, including all flora and fauna, and physical characteristics naturally present in the waterbody shall be protected to prevent any adverse effects.*
  - There are many ways that the Project's construction, maintenance, and operation will change hydrology in wetlands and streams and alter flow paths in a manner that will adversely affect the natural hydrological conditions in tribal waterbodies and the biological communities dependent upon them. For example:
    - As discussed in the Project impact sections above, expert analysis of how converted forests to maintained corridors can impact hydrology, especially when subbasins are already at or near their tipping point of 60% for how much open agricultural land and young forest (Verry, 2004) the landscape could contain before runoff would adversely impact stream morphology and water quality.
    - Thompson & Associates' previously submitted DCDD comments regarding converting wetland forests and other wetland conversions can change downstream hydrology and water quality (Attachment A to Band's 2024 Comment on Corps DCDD). The FEIS (WDNR, 2024) also recognizes the importance of forested landscapes, stating "Maintaining wetlands and mature upland forests is important to "slow the flow", especially during large precipitation events, which are increasing in frequency and intensity due to climate change (WICCI, 2021)." Increases in flood flows downstream of the proposed construction combined with expected discharge impacts will result in an exceedance of water quality.

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- The FEIS (page 324) states "Soil compaction would increase runoff, limit infiltration, and slow vegetation reestablishment during the restoration phase." However as pointed out in reviews by Thompson and Associates, in a review of a pipeline corridor in southern Wisconsin eight years after construction, the soils in the pipeline corridor as compared to the unimpacted soils outside the construction corridor had higher bulk density, lower depth to refusal, and lower soil moisture (Olson & Doherty, 2012). The authors concluded that construction led to soil compaction and then a "combination of compaction and soil mixing (during trench refilling) changed soil water holding capacity, and thus, altered hydrology, soil/sediment chemistry, and invertebrate and wetland plant habitat" (Olson & Doherty, 2012)."
- In LimnoTech's comments submitted for the DCDD among the chemical impacts that blasting will have on surface water / groundwater interactions "…blasting could potentially expose bedrock containing sulfur-bearing minerals (e.g., iron sulfides) to atmospheric oxygen, moisture, and acidophilic iron-oxidizing bacteria, resulting in sulfuric acid, dissolved iron, precipitation of ferric hydroxide, and pipeline degradation." (Attachment B to Band's 2024 Comment on Corps DCDD) These natural contaminates, along with previously listed naturally occurring contaminates are found within the geology found throughout the Penokee range. The mineralogy of the project is poorly understood so the exact impacts are hard to quantify at this time. The blasting residue used for this project would also contribute to pollution loading of wetlands and waterways. "Blasting residue constituents of concern include nitrates, fuel oil, perchlorate, mercury, RDX, HMX, and PETN." (Attachment B to Band's 2024 Comment on Corps DCDD)
- Blasting in shallow bedrock areas will increase fracturing in the bedrock beyond what would be excavated and refilled as part of the proposed construction. This would alter flows both entering and exiting the groundwater system. This will lead to changes in TSS and other contaminants in groundwater wells. This will also change the hydrology within specific wetlands by either increasing the amount of groundwater received or by cutting off wetlands that will have more fractured bedrock and act like a sieve and drain them from below. "Blasting has the potential to increase total suspended solids (TSS) in wetlands, impact groundwater hydrology by creating new bedrock fractures which may dry up or drown wetlands, or change flow rates

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at seeps." (Attachment B to Band's 2024 Comment on Corps DCDD)

- Other projects with similar activities to this Project have resulted in water quality impacts, including impacts to waters within the Reservation boundaries. For example, the construction, maintenance, and operation of Line 5 pipeline within the Reservation altered the natural hydrological conditions in Denomie Creek tributaries, riparian wetlands, and other connected waters as described in the *Denomie Creek Tributary Modification to an Engineered Riprap Channel Case Study* (Attachment A). These hydrologic alterations resulted in permanent impacts and losses, including to the natural biological community (e.g., flora). The construction and prior maintenance of the pipeline altered the flow paths of two watercourses, diverting their flow west instead of flowing north as they naturally did, which then caused hydrological alterations to a third watercourse due to the increased surface water flow from the first two watercourses. The project implemented in early 2020 to rebury the pipeline – after MNRD and its contractors discovered an over 40-foot stretch of the pipeline exposed and notified Enbridge – caused more water quality impacts than originally anticipated and as described in application materials. This project resulted in permanent losses of at least 153 linear feet and 0.145 acres of a Denomie Creek tributary and riparian wetlands and at least three acres of wetland impacts that have lasted over five years. Additionally, the Enbridge Check Valve Installation Project near the Meander (Attachment C) project caused additional degradation to wetlands than originally anticipated as (1) vehicle traffic did not remain on the construction matting, thus damaging vegetation, compacting soils, and causing additional rutting in the wetlands, and (2) matting through wetlands and uplands caused soil compaction which will impact the hydrology of the site and the revegetation of the disturbed areas in the corridor.

- *E.6.ii.c. Water quantity and quality that may limit the growth and propagation of, or otherwise cause or contribute to, an adverse effect to wild rice, wildlife, and other flora and fauna of cultural importance to the Tribe shall be prohibited. This includes, but is not limited to, a requirement that sulfate levels shall not exceed concentrations causing or contributing to any adverse effects in waters, including those with a Wild Rice designated use.*
  - Refer to the discussion above on how the Project will cause changes in hydrology, which could change both water quantity and water quality in Reservation waters, due to the conversion of forests into maintained corridors, the conversion of forested wetlands into other degraded wetland types, and blasting.
  - The Project as proposed will damage and degrade wetland functions such as floristic integrity (through the alteration of critical habitat

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and increased spread of non-local beings (NLBs) or invasives), flood and stormwater storage (through removal of forested wetland habitat increasing rates of flow from landscape, the degradation of headwater wetlands important for storing precipitation and snowmelt, etc.), groundwater processes (through the interruption of groundwater flows due to trenching and blasting, the damage of seeps and springs from soil compaction, etc.), prevention of stream sedimentation, biological diversity, and wildlife habitat.

- Furthermore, the duration of other Project impacts categorized as "temporary" will last significantly longer than temporary, which is often defined as impacts lasting up to 90 days. For example, the duration of increased sediment concentrations in receiving waters – including the downstream or otherwise hydrologically connected tribal waters – will last for a longer duration than the sediment analysis included in the DCDD recognizes. This analysis does not consider factors such as the vast vegetation disturbances that will be caused by the Project. Vegetation disturbances will occur during Project construction and maintenance phases, such as complete vegetation removal up to the edge of more than 100 watercourses crossed by open trenching. It will take significant time for vegetation disturbances to be restored and vegetation in some Project areas will never be restored to pre-construction conditions (e.g., forested wetlands, areas where invasive species are introduced and spread, etc.)
- There are 247 wetlands on the construction route with reed canary grass (*Phalaris arundinacea*) (FEIS, page 623). Reed canary grass is notoriously difficult to control, including with herbicide, and due to the miniscule size of the seeds they would be unnoticeable on mats, equipment, and even boots. Even with the strategies included in the Invasive and Noxious Species Management plan, any disturbance to this species would result in the expansion of its population and degradation in wetlands downstream or otherwise hydrologically connected. Existing populations of reed canary grass in low abundance in shaded wetland can rapidly increase dominance in full light, especially in areas with disturbance. An example of wetlands with current low levels of reed canary grass are wasa 1005s and wasa1004f (Map 28, MP 14.1). The wetlands are adjacent the Brunsweiler River (wasa1005s), and adjacent the access road from HW C south (wasa1004f). These areas of reed canary grass will expand with disturbance and high light levels after the shrubs and trees are removed for construction, which will increase the discharge of seeds into waterways. WDNR identifies that reed canary grass "seeds, rhizomes, and culm fragments will float on water." The environmental effects of this species spreading to new wetland habitats are explained by the WDNR as "declines in species density, richness, and diversity." Additionally, "silt deposits and the

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emergent stems and leaves of reed canary grass reduce the volume of water that a channel can carry and thus impede water flow" (Comes et al. 1981).

- A large colony of garlic mustard (Alliaria petiolata) exists at the Bad River Crossing (Attachment L of the Environmental Construction Plan, page 115 of 192, Map page 91). "Garlic mustard colonizes floodplain forests as well as upland forests and seeds can also be dispersed through water flow. They can be distributed upstream as well as downstream.." (MSU, 2018). Garlic mustard releases chemicals that inhibit the growth of other plant species and disrupt the mycorrhizal fungi community, which impacts the ability of trees to take up water and nutrients. The ecosystem community composition change caused by this species impacts all aspects of the ecosystem including water quality as the growth of all other species is inhibited. If control efforts to remove garlic mustard take place after it is established along streambanks, soil erosion will increase because of this species ability to outcompete other species.
- Populations of common buckthorn (*Rhamnus cathartica*) are documented near several rivers in the proposed project area. The USDA states that "common buckthorn fruits can float and remain viable in water, and thus be dispersed by rivers and streams". They also state that "dry common buckthorn fruits can float for 6 days and seeds for 3.5 days" and one study even found that "seventy-seven percent of common buckthorn seeds germinated after being placed in water for 2 weeks in the spring in Saskatchewan" (Zouhar, 2011). The proposed Project will provide favorable conditions for common buckthorn populations to expand during Project construction, maintenance, and operation (i.e., disturbed soil and increased traffic) which will increase the number of berries and seeds discharged into downstream waters. Common buckthorn is an aggressive species that quickly outcompetes native plants. Due to the shallow root system of this species, it does not hold soil in place well which can cause an increase in erosion and degrade water quality when it takes over an area and outcompetes more deeply rooted native vegetation (Minnesota DNR).
- Purple Loosestrife (*Lythrum salicaria*) has been documented along the proposed Project route. The Minnesota DNR identifies the loosestrife seed "[a]s tiny as grains of sand, seeds are easily spread by water, wind, wildlife and humans." One mature purple loosestrife plant can produce 2.7 million seeds each year, in addition to this, the root and stem fragments can also produce new plants. This species outcompetes native species and takes over habitats, and due to its dense root systems it can change the hydrology of the wetlands it invades. Because of the small and numerous seeds of this plant, it is likely that construction, maintenance, and operation activities will spread these seeds even if equipment cleaning protocols are

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followed. When the seeds are spread to waterways they will travel downstream and invade wetlands, reducing native plant populations and the wetland functions they serve.

- Non-native cattail (*Typha angustifolia, Typha X glauca*) is a colonizer of open wetlands with standing water, high nutrients and disturbance. It is in relatively few of the forested wetlands currently, but the disturbances of the pipeline construction will create more suitable habitat. Typha sp. has tiny seeds that can readily disperse by wind and water. This species can "impact local plant and animal life, biogeochemical cycling, and wetland hydrology, which in turn alter wetland functions and ecosystem services provided to society" (USGS 2020).
- The WDNR's Final Environmental Impact Statement (FEIS, 2024) for the Project states: "Wetlands that filter or store sediments or nutrients for extended periods could undergo fundamental changes. Sediments can eventually fill wetlands and nutrients can eventually modify the vegetation. Such changes could result in the loss of the water quality function over time." (p. 455, citing WDNR Wetland Functional Values website, https://dnr.wisconsin.gov/topic/Wetlands/funcitonal.html.) This risk isn't only to the wetlands adjacent to the proposed Project but downstream to Reservation wetlands as well as overbank flow in high water events which can carry excess sediment to downstream floodplain wetlands such as those along Potato River, Tyler Forks, and other watercourses. However, sedimentation discharges will not only occur at the time of construction but over time as part of restoration, operation and maintenance resulting in cumulative contributions of sediments. As the EPA points out in *Connectivity of Streams & Wetlands to Downstream Waters: A Review & Synthesis of the Scientific* (2015) "a single pollutant discharge might be negligible but the cumulative effect of multiple discharges could degrade the integrity of downstream waters".
- As pointed out in other areas of this letter, the loss of forested upland and wetland areas on the landscape will decrease the time that precipitation and snowmelt are held on the landscape, and this increased flow in the watershed can lead to additional hydrologic peaks that can damage wild rice at sensitive stages as well as scour out the sediments and seedbank necessary for health manoomin beds.
- Other projects with similar activities to this Project have resulted in water quantity and quality impacts, including impacts to waters within the Reservation boundaries.[36] For example, the construction,

[36] MNRD, February 2020. Enbridge Line 5 Issues within the Bad River Reservation: A Brief Overview Provided by Mashkiiziibii Natural Resources Department. www.badriver-nsn.gov/wp-content/uploads/2020/02/202002_NRD_EnbridgeLine5_Brochure.pdf

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maintenance, and operation of Line 5 pipeline within the Reservation impacted the water quantity and quality in Denomie Creek tributaries, riparian wetlands, and other connected waters as described in the *Denomie Creek Tributary Modification to an Engineered Riprap Channel Case Study* (Attachment A). These water quantity and quality changes caused adverse effects to wildlife and flora of cultural significance to the Band, which is why the Band only partially approved and denied a portion of the water quality impacts after MNRD had to issue two emergency approvals due to the project's design and implementation failures to prevent more adverse water quality impacts from occurring. Even with the issuances of the emergency approvals, the duration of water quality impacts lasted years longer than described in the application materials and impacts continue today – after five years – as the project site has not met the stabilization criteria, requiring repeated impacts to the wetlands within the access route. Culturally significant wildlife and flora impacted by this project's impacts to surface waters include, but are not limited to, balsam fir (*Abies balsamea*), maples (*Acer* spp.), speckled alder (*Alnus incana*), red-osier dogwood (*Cornus alba*), spotted Joe-Pye-weed (*Eutrochium maculatum*), large-leaf avens (*Geum macrophyllum*), sensitive fern (*Onnoclea sensibilis*), water smartweed (*Polygonum amphibium*; syn. *Persicaria amphibia*), balsam poplar (*populus balsamifera*), dwarf raspberry (*Rubus pubescens*), and soft-stem bulrush (*Schoenoplectus tabernaemontani; syn. Scirpus validus)*.

- Culturally significant wildlife and flora impacted by other project like the Enbridge Check Valve Installation Project near the Meander (Attachment C) or the Department of Transportation Inadvertent Release in the Bad River (Attachment B) impacts to surface waters include, but are not limited to, groundnut (*Apios americana)*, northern white cedar (*Thuja occidentalis*), black ash (*Fraxinus nigra*), spotted Joe-Pye-weed (*Eutrochium maculatum*), orange jewelweed (*Impatiens capensis*), lake sturgeon (*Acipenser fulvescens*), wild rice (*Zizania palustris*), and butternut (*Julgans cinera*).

- *E.6.ii.e. Pollutants or human-induced changes to waters, the sediments of waters, or area hydrology that results in changes to the natural biological communities and wildlife habitat shall be prohibited. The migration of fish and other aquatic biota normally present shall not be hindered. Natural daily and seasonal fluctuations of flow (including naturally occurring seiche), level, stage, dissolved oxygen, pH, and temperature shall be maintained.*
  - As acknowledged by the DCDD (p. 61), "[c]onstruction related activities within or adjacent to streams and adjacent wetlands could increase turbidity and sedimentation, alter stream channels or substrate composition, alter, or remove cover, increase erosion, or

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degrade habitat." The DCDD incorrectly concludes that the Project will only have "minor short-term effects" on suspended particulates and turbidity. There are multiple ways that the Project will increase erosion, sedimentation, and turbidity and impact water quality in tribal waters, such as stormwater discharges due to construction activities, IRs associated with Project's HDDs or direct bores, and discharges associated with maintenance activities. Regarding turbidity, please refer to the turbidity discussion in a section below.

- "Further, removing and mowing vegetation will also make the surface roughness texture in the pipeline corridor smoother relative to an un-mowed condition (Zhao and Jackson, 2014), meaning surface runoff generated during storms will likely flow over the ground surface at higher velocities. Water moving at a higher velocity is less likely to infiltrate along its flow path and, in combination with its greater volume as a result of reduced abstractions, will increase erosion due to its higher sediment carrying capacity (Ding and Huang, 2017)." (Attachment C to Band's 2024 Comment on Corps DCDD).
- The Project involves significant blasting primarily south of the Reservation (Map 5), which will release minerals (e.g., sulfides, arsenic, uranium, metals). As previously discussed, the Project will also alter hydrology, groundwater levels, and flow paths, including groundwater-surface water interactions. The Project's blasting and activities altering hydrology and flow paths will mobilize pollutants, such as radionuclides, asbestos, arsenic, and nitrates, into surface waters, such as groundwater-fed wetlands and cold-water streams, and will result in changes to the natural biological community and wildlife habitat. Blasting also can increase sediments in wetlands.
- Accidental releases of fuels and other fluids from equipment will also occur with this Project. These pollutant discharges can result in changes to the natural biological communities and wildlife habitat dependent upon factors, such as the discharge type, discharge quantity, location of the discharge, and the adequacies of BMPs used and containment and cleanup efforts. These types of releases have occurred even on smaller scale projects that have similar activities to this Project. As discussed earlier in this letter, analysis done by GLIFWC supports that contaminants to surface waters can be carried downstream for long distances in watersheds in similar size to the Bad River from tributary discharges upstream.
- Other projects with similar activities to this Project have resulted in water quality impacts, including impacts on waters within the Reservation boundaries. For example, the construction, maintenance, and operation of Line 5 pipeline within the Reservation resulted in pollutants or human-induced changes to waters, sediments, and hydrology in Denomie Creek tributaries, riparian wetlands, and other connected waters as previously

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discussed and as described in the *Denomie Creek Tributary Modification to an Engineered Riprap Channel Case Study* (Attachment A). Additionally, impacts from IRs like those discussed in Department of Transportation Inadvertent Release in the Bad River Case Study (Attachment B) can further degrade or impact water quality as drilling fluid is released in water and then additional disturbance into remote areas needs to occur to try to clean it up. These human-induced alterations resulted in changes to the natural biological communities (e.g., flora) and wildlife habitat. Furthermore, the construction of the Enbridge Check Valve project near the Meander (Attachment C) within the Reservation boundary caused changes in hydrology and resulted in a change in wetland functions and uses, and increased erosion and sedimentation.

- *E.6.ii.f. Existing mineral quality shall not be altered by municipal, industrial and in-stream activities or other waste discharges so as to in any way impair the designated uses for a water body.*
    - The Project involves significant blasting primarily south of the Reservation (Map 5), which will release minerals (e.g., sulfides, arsenic, uranium, metals). As previously discussed, the Project will also alter hydrology and flow paths, including groundwater-surface water interactions. The Project's blasting and activities altering hydrology and flow paths will mobilize these naturally occurring minerals into surface waters, such as groundwater-fed wetlands and cold-water streams, altering their existing mineral quality and potentially leading to impairments of uses.
- *E.6.ii.g. Temperature – No measurable change (increase or decrease) in temperature from other than natural causes shall be allowed that causes or contributes to an adverse effect to the natural biological community. For those waters designated as a Cold Water Fishery, there shall be no measurable increase in temperature from other than natural causes*.
    - As summarized in MNRD WQS Report (Attachment L to Band's 2024 Comment on Corps DCDD), the DCDD only mentioned temperature three times, and the DCDD also lacked the Corps' justification and analysis of evaluating potential changes in water temperature due to the Project. The DCDD did not recognize that changes in water temperatures can be caused by the Project beyond the removal of vegetation at waterbody crossings. Blasting or other changes in groundwater/surface water connections have the potential to change temperature in surface waters. A pipeline itself can give off heat to the surrounding environment as experienced with Line 3 in Minnesota (refer to Attachment 2 of the MNRD WQS Report) and with pipelines running through the Reservation boundaries (Figure 13). Appendix S in the 2014 Keystone XL Final Supplemental Environmental Impact Statement analyzed expected temperature effects from the (at the time) proposed Keystone XL

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pipeline, showing measurable effects both sub-surface and at soil surface (Walker, 2014).

Figure 13. Screenshot from a drone flight over an exposed natural gas pipeline on Reservation, showing both an aerial and white-hot thermal image side-by-side. Thermal imaging is showing a temperature difference between the pipeline and the surrounding area.

- *E.6.ii.h. The presence of pollutants in quantities that result in bioaccumulation in aquatic organisms that may cause or contribute to an adverse effect to consumers of aquatic organisms shall be prohibited.*
  - As described in the MNRD WQS Report (August 2024), PFAS and mercury are examples of pollutants that bioaccumulate and cause or contribute to an adverse effect to aquatic organisms and those who consume them. The Project will discharge and alter background conditions of these harmful pollutants. For example:
    - there is potential for HDD fluid that could be released to contain PFAS and other chemicals, as material data sheets may not be thorough due to proprietary information (Glüge et al, 2020; Horwitt and Gottlieb, 2023). Other sources of PFAS from the Project include tackifiers used on soil piles, pesticides or chemicals used to control non-local beings (or invasives), and other materials used during construction, maintenance, and operation of the pipeline.
    - the Project involves significant blasting primarily south of the Reservation (Map 5), and mercury is one of the constitutes of concern in the blasting residue as described in Attachment B to Band's 2024 Comment on Corps DCDD.

The Project is also planning to use excess rock from blasting as fill for trench material, which will contain blasting residue.

- An additional concern with modification of wetland hydrology by trenching and blasting is the mobilization of mercury and methylmercury from wetland soils and peat due to changes in saturation and redox conditions (Hurley et al., 1995; Brahmstedt et al., 2019). Multiple Lake Superior watersheds have mercury impairments linked to upland wetland sources, including the Black River and St. Louis River watershed in Minnesota and Wisconsin (Burns, 2020; https://www.pca.state.mn.us/sites/default/files/wq-iw10-16a.pdf), and headwaters sources of mercury are important contributors to downstream concentrations (Janssen et al., 2024 and 2025).

- *E. 7.iii. Turbidity. Shall not exceed 5 NTU over natural background turbidity when the background turbidity is 50 NTU or less, or turbidity shall not increase more than 10 percent when the background turbidity is more than 50 NTU.*
  - As previously mentioned, the DCDD recognizes that the Project will impact turbidity; however, the DCDD falls short by incorrectly concluding that these water quality impacts are "minor short-term effects." There are multiple ways that the Project will cause turbidity increases in tribal waters, such as stormwater discharges due to construction activities on approximately 930 acres of land, IRs associated with Project HDDs or direct bores, and discharges associated with maintenance activities. Please also refer to the details contained in the Band's Comments from August 2024 and the various attachments and the previous discussion on the Project's landscape alterations and the resulting effects to hydrology and water quality.
  - Regarding IRs associated with the Project's HDDs or direct bores, Figure 14 below is an example analysis demonstrating that the Project will increase turbidity in downstream or otherwise hydrologically connected tribal waters. This figure is based on the following assumptions, which are based on ranges that could reasonably be expected from this Project:
    - The receiving stream has a flow of 50 cubic feet per second (cfs).
    - The receiving stream has a suspended-sediment concentration (SSC) of 30 mg/L.
    - The Inadvertent Release has a suspended-sediment concentration of 30,000 mg/L.
    - The Inadvertent Release duration is 6 hours.
    - As the relationship between SSC and turbidity (NTU) is variable, depending on the water body, the upper and lower

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ranges of the NTU/SSC relationship shown on this graph are based on a USGS study of rivers in Minnesota.

- Furthermore, Enbridge's interpretation and analysis of compliance with the Band's turbidity criteria is flawed. For example, their analysis utilizes a small portion of the data publicly available for the Bad River. Their analysis then incorrectly assumes that this TSS/turbidity relationship is applicable to other watercourse crossed by the Project even though that relationship between TSS and turbidity has been shown to vary substantially between different watercourses (USGS, 2013). Refer to additional details contained in the Band's 2024 Comments on Corps DCDD, including Attachment C.

- Other projects with similar activities to this Project have resulted in water quality impacts, including impacts to waters within the Reservation boundaries. For example, turbidity increased in Denomie Creek tributaries adversely affected by a project classified as pipeline maintenance as described in the *Denomie Creek Tributary Modification to an Engineered Riprap Channel Case Study* (Attachment A). The increases in turbidity lasted longer during both the construction phase and the maintenance phase of this project than originally anticipated and described in application materials and due to the project's design and implementation failures.

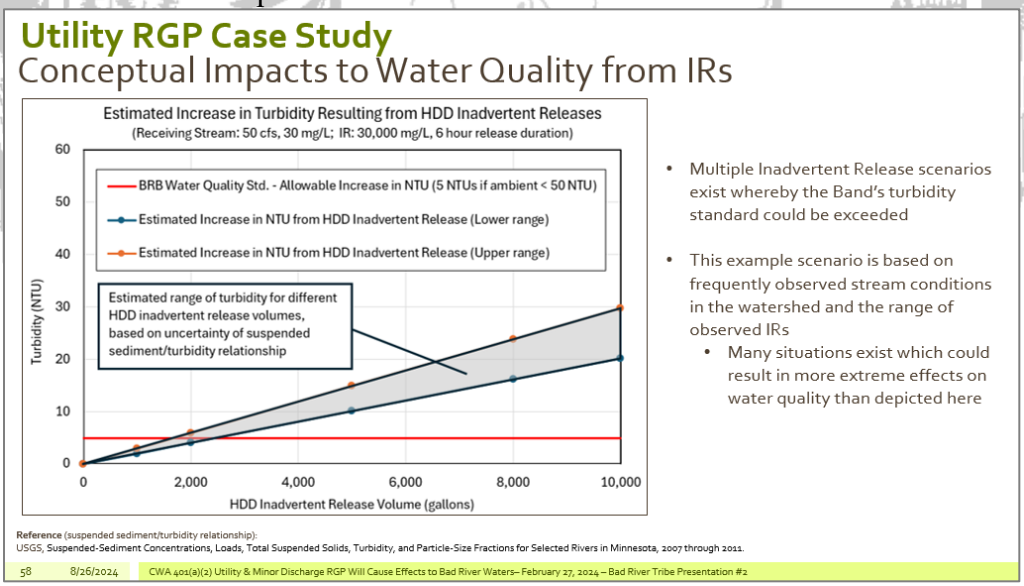

Figure 14. Estimated increase in turbidity resulting from HDD IRs can lead to exceedances of the Band's water quality criteria, such as turbidity as illustrated by the red horizontal line. This graph was created based on the assumptions described above.

- *E.7.i. Dissolved oxygen – Unless otherwise demonstrated through a use attainability analysis or site-specific criterion that aquatic life cannot be supported, a water body capable of supporting aquatic life shall have a daily minimum dissolved oxygen standard of 5 mg/L in all cases except*

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waters designated as a Cold Water Fishery. For those waters designated as a Cold Water Fishery, the dissolved oxygen shall have a daily minimum of 6 mg/L at any time and 8 mg/L when and where early life stages of cold water fish occur. These criteria will not apply to the Kakagon Sloughs, Bad River Sloughs, and wetlands due to their natural conditions. ii.

- Temperature changes and changes in groundwater levels greatly change the dissolved oxygen levels in cold water streams. These changes impact aquatic wildlife within these habitats. Rising temperatures in streams exponentially increase toxicity of many chemical and heavy metal pollutants putting strain on fisheries and other aquatic life.

- *E.7.ii. pH – No change is permitted greater than 0.5 units over a period of 24 hours for other than natural causes. The change, upward or downward, shall not result in an adverse effect on aquatic biota, fish or wildlife.*
  - Changes in pH increases the potencies of compounds, natural and anthropogenic, within waterbodies. Depending on the speed and magnitude of the change the biota will suffer different consequences such as disease outbreaks, bacterial infections, or even death. For example, increasing pH also increases ammonia toxicity to aquatic life and fish, although less ammonia is required to produce toxic effects at lower pH (IPCS 1986, Wurts, 2003).
- *E.6.i. Narrative criteria for aesthetic water quality. All waters (including wetlands) within the Reservation shall be free from substances, attributable to wastewater discharges or pollutant sources resulting from other than natural background conditions, that:*
  - *E.6.i.a. Settle to form objectionable deposits;*
  - *E.6.i.b. Float as debris, scum, oil, or other matter forming nuisances;*
  - *E.6.i.c. Produce objectionable color, odor, taste, or turbidity;*
    - Refer to the discussion above on how this Project will impact turbidity.
  - *E.6.i.d. Cause injury to, are toxic to, or produce adverse physiological responses in humans, animals, or plants;*
  - *E.6.i.e. Produce undesirable or nuisance aquatic life;*
    - According to the EPA (2015) "Biological connections are likely to occur between most non-floodplain wetlands and downstream waters though either direct or stepping stone movement of amphibians, invertebrates, reptiles, mammals, and seeds of aquatic plants, including colonization by invasive species. Many species in these groups that use both stream and wetland habitats are capable of dispersal distances equal to or greater than distances between many wetlands and river networks."
  - *E.6.i.f. Produce nutrients or other substances that stimulate algal growth producing objectionable algal densities, nuisance aquatic*

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vegetation, dominance of any nuisance species instream, or cause nuisance conditions in any other fashion; or

- *E.6.i.g. Adversely affect the natural biological community of the waterbody.*
  - Refer to conditions above discussing impacts to aquatic life and fish and impacts resulting in NLB infestations.
- Other projects with similar activities to this Project have resulted in water quality impacts, including impacts to waters within the Reservation boundaries. For example, the aesthetic water quality in Denomie Creek tributaries and connected wetlands was adversely affected by a project classified as pipeline maintenance as described in the *Denomie Creek Tributary Modification to an Engineered Riprap Channel Case Study* (Attachment A). The impacts to the aesthetic water quality of these surface waters were amplified by the longer duration of both the construction phase and the maintenance phase of this project than originally anticipated and described in application materials.

- Provisions H.1. through H.3. contain numeric criteria for multiple pollutants derived for the protection of aquatic life including, but not limited to, acute and chronic criteria that are not dependent on other water characteristics and are respectively listed in Tables 2 and 4 of the Band's WQS along with acute and chronic criteria that are dependent on other water characteristics, such as pH and hardness, are respectively listed in Tables 3 and 5 of the Band's WQS. These pollutants include, but are not limited to, arsenic and mercury.
  - As previously described, the Project will introduce and/or mobilize sources of pollutants, such as arsenic, mercury, and metals, which will cause water quality impacts that adversely affect aquatic life.
- Provisions H.4. through H.7 contain numeric criteria for multiple pollutants, such as mercury, derived for the protection of human health. Human health cancer criteria are provided in Table 6 of the Band's WQS and human health noncancer criteria are contained in Table 7 of the Band's WQS. The criteria related to drinking water in these provisions apply to tribal waters with cultural and/or recreational designated uses as these uses involve primary contact and ingestion of surface waters.
  - As previously described, the Project will introduce and/or mobilize sources of pollutants, such mercury, which will cause water quality impacts that adversely affect human health and impair the ability of surface waters to support the uses (e.g., cultural use).
- Provisions H.8 through H.9 contain numeric criteria for multiple pollutants, such as mercury, derived for the protection of wildlife.
  - As previously described, the Project will introduce and/or mobilize sources of pollutants, such as mercury, which will cause water quality impacts that adversely affect wildlife.
- Provision H.10 of the Band's WQS describes the ammonia criteria derived to protect aquatic life and fish.

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- As recognized in WDNR's FEIS, blasting agents utilized by the Project include a mixture of ammonium nitrate and fuel oil, which is a highly soluble compound and has the potential to release nitrate, nitrite, and ammonia into soil and groundwater. Ammonia toxicity is dependent upon pH and temperature, and ammonia toxicity increases as both pH and temperature increases. Furthermore, HDD drilling fluids used in the Project contain sodium carbonate, which can significantly increase the pH of receiving waters, and thus, increase the toxicity of pollutants, such as ammonia.

2. Antidegradation [23]

- An antidegradation policy is a required component of the water quality standards that the Band, as a TAS tribe, must adopt and enforce. *PUD No. 1 of Jefferson County v. Washington Dep't of Ecology*, 511 U.S. 700 (1994); 33 USC 1313(d)(4)(B), 40 CFR §131.12. EPA regulations require that three antidegradation elements be included in state and tribal water quality standards. State and tribal antidegradation policies must be consistent with the components detailed in 40 CFR §131.12, but may be more protective than the Federal requirement. A key component of the Band's WQS is our antidegradation policy, which is protect existing uses and prevent clean waters from being unnecessarily degraded. The Band's policy applies to all surface waters of the Reservation.
- To explain how the Project will not comply with the Band's Antidegradation Policy and Decision Criteria, we first need to describe the policy and decision criteria. Surface waters within the Bad River Reservation are designated as Outstanding Tribal Resource Waters (Chi minosingbii), Outstanding Resource Waters (Chi minosibii), or Exceptional Resource Waters (Anishinaabosibiing) as described in detail below and as shown on Map 2 and Map 3. The lowering of water quality as defined in the Band's WQS is included below along with the narrower definition pertaining to Outstanding Tribal Resource Waters. When a project or discharge is proposed that will lower the water quality of Waters of the Band, an Antidegradation Demonstration meeting the requirements in the Band's WQS must be submitted to the Band, and the Band, through MNRD, will evaluate the demonstration materials along with other data and information to assess whether or not the Antidegradation Demonstration and Decision criteria are met, which is the basis of MNRD's recommendation to the Band for decision-making.
- *E.2.i. For the purposes of implementing the provisions of this subsection, any surface waters not specifically classified as Outstanding Tribal Resource Waters (Chi minosingbii) or Outstanding Resource Waters (Chi minosibii) are classified as*

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Exceptional Resource Waters (Anishinaabosibiing or ERWs) and are roughly equivalent to EPA's regulatory definition of Tier 2 waters under the Agency's antidegradation policy. Exceptional Resource Waters are of high quality and culturally important for the ecosystems they support. Existing in-stream water uses and the level of water quality fully protective of the existing uses shall be maintained and protected, or improved in the case of a degraded stream. Where designated uses of the water body are impaired, there shall be no lowering of the water quality with respect to the pollutant or pollutants that are causing the impairment. Where the quality of the water exceeds that necessary to support the designated use, that quality shall be maintained and protected, or improved, unless the Tribe finds, after full satisfaction of intergovernmental coordination and public participation provisions of the Tribe's continuing planning process that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the Tribe shall assure water quality adequate to protect existing uses fully.

  - The Project involves crossing multiple of the Band's ERWs, including tributaries to Marengo and Brunsweiler Rivers, such as Silver Creek, Trout Brook, and Billy Creeks, at locations upstream of the Reservation. There are also many wetlands designated as ERWs by the Band that the Project will affect.

- *E.2.ii. Surface waters of the Reservation that are identified as high quality and culturally important to the Tribe for the fisheries and ecosystems they support are Outstanding Resource Waters (Chi minosibii) and could be described as roughly equivalent to EPA's regulatory definition of Tier 2.5 waters under the Agency's antidegradation policy. New or increased discharges may be permitted provided that the new or increased discharge does not result in a change in background conditions or negatively impact designated uses or existing uses; however, no new or increased discharges of BCCs will be permitted. Where the quality of the water exceeds that necessary to support the designated use, that quality shall be maintained and protected, or improved, unless the Tribe finds, after full satisfaction of inter-governmental coordination and public participation provisions of the Tribe's continuing planning process that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the Tribe shall assure water quality adequate to protect existing uses fully. Waters designated as Outstanding Resource Waters (Chi minosibii or ORWs) include: a portion of Bad River, from downstream of the confluence with the White River to*

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Lake Superior, White River, Marengo River, Graveyard Creek, Bear Trap Creek, Wood Creek, Brunsweiler River, Tyler Forks, Bell Creek, and Vaughn Creek.

- The Project involves crossing the majority of the Band's ORWs, including the White River, Marengo River, Bear Trap Creek, Brunsweiler River, Tyler Forks River, and Vaughn Creek, along with their tributaries and connected wetlands at locations upstream or otherwise hydrologically connected the Reservation waters.

- *E.2.iii. Surface waters of the Reservation that are identified as high quality and constitute a significantly important cultural and ecological resource are designated as Outstanding Tribal Resource Waters (Chi minosingbii) and are roughly equivalent to EPA's regulatory definition of Tier 3 waters under the Agency's antidegradation policy. These waters are recognized as being largely pristine and important for the cultivation of wild rice or the spawning of lake sturgeon, or have other special resource values, and, therefore, that water quality shall be maintained and protected in all cases without degradation. New or increased discharges will not be permitted. Waters designated as Outstanding Tribal Resource Waters (Chi minosingbii or OTRWs) include: Kakagon Slough and the lower wetland reaches of its tributaries that support wild rice, Kakagon River, Bad River Slough, Honest John Lake, Bog Lake, a portion of Bad River, from where it enters the Reservation through the confluence with the White River, and Potato River.*
  - The Project includes directly crossing three of the Band's OTRWs – the Bad and Potato Rivers and Bear Trap Creek – upstream of the Reservation. The Project also includes impacts to their tributaries and connected wetlands and to tributaries and wetlands hydrologically connected to the Kakagon and Bad River Sloughs complex (including the most downstream reach of Bear Trap Creek), comprehensively designated as OTRWs by the Band.
- *E.3.i. Lowering of Water Quality: A lowering of water quality is defined as: the projected or observed diminished chemical, biological, or physical integrity of Reservation surface waters, including changes to water flow or water level; or, new or increased loading of any pollutant from any regulated existing or new facility, either point source or nonpoint source, for which there is a control document or reviewable action, as a result of any activity including, but not limited to:*
  - *a. Construction of a new regulated facility or modification of an existing regulated facility such that a new or modified control document is required;*

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- *b. Modification of an existing regulated facility operating under a current control document such that the production capacity of the facility is increased;*
- *c. Addition of a new source of untreated or pretreated effluent to an existing wastewater treatment works, whether public or private;*
- *d. A request for an increased limit in an applicable control document; or*
- *e. Other deliberate activities that, based on the information available, could be reasonably expected to result in an increased loading of any pollutant to any waters of the Bad River Reservation.*

- *E.3.ii. Outstanding Tribal Resource Waters: No new or increased discharges or alterations of the background conditions are allowed to Outstanding Tribal Resource Waters; however, a short-term, temporary (no more than 6 months, and no more than necessary) lowering of water quality may be allowed provided that an entity seeking to engage in such discharge demonstrate that such discharge will arise entirely from one of the following and meets the Outstanding Tribal Resource Waters Antidegradation Demonstration and Outstanding Tribal Resource Waters Antidegradation Decision requirements below:*
  - *a. Maintenance/repair of existing roads, bridges, boat landings, culverts, septic systems, or other similar structures; construction of buildings, wells, roads, or other similar structures.*
  - *b. Response actions undertaken to alleviate a release into the environment of hazardous substances, pollutants, or contaminants which may pose an imminent and substantial danger to public health or welfare.*
  - *c. Actions undertaken to restore culturally important species and their habitats.*
- *E.4.i. Antidegradation Demonstration: An antidegradation demonstration must be submitted to the Water Resources Program by all of the following entities:*
  - *a. Any entity seeking to lower water quality in a high quality water, which includes an Exceptional Resource Water or an Outstanding Resource Water;*
  - *b. Any entity seeking to create a new or increased discharge of Lake Superior bioaccumulative substances of immediate concern in an Exceptional Resource Water;*
  - *c. Any entity seeking to lower water quality in an Outstanding Tribal Resource Water on a short-term, temporary basis.*
  - Provisions E.4.ii. through v. describe the demonstration requirements that must be submitted by the project

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proponent to the Band's MNRD to aid in the evaluation of the Band's Antidegradation decision-making. Demonstrations requirements applicable to both ORWs and OTRWs specify that no increased loads of Bioaccumulative Chemicals of Concern (BCCs) are allowed to be discharged.

- *E.5.i. Antidegradation Decision – ERWs and ORWs: Once the Water Resources Program determines that the information provided by the entity proposing to increase loadings is administratively complete, the Water Resource Program shall use that information to determine whether the lowering of water quality is necessary, and, if necessary, whether the lowering of water quality will support important social and economic development in the area. If the proposed lowering of water quality is either not necessary or will not support important social and/or economic development goals, the Water Resources Program shall recommend to deny the request to lower water quality. The Tribal Council shall review the recommendation and decide whether to deny the request. If the lowering of water quality is necessary, and will support important social and economic development goals, the Water Resources Program shall recommend to approve all or part of the proposed lowering of water quality to occur as necessary. The Tribal Council shall review the recommendation and decide whether to approve all or part of the proposed lowering of water quality. In no event may the decision reached under this section allow water quality to be lowered below the minimum level required to fully support existing and designated uses. The decision shall be subject to the public participation requirements of 40 CFR 25.*
- As described in detail above, there are multiple ways that the Project will cause the water quality in tribal waters to be lowered, including the projected or observed impacts to the chemical, biological, and physical integrity of Reservation surface waters, including changes to flow and water levels. Even if solely focusing on the construction phase, the Project will alter waters physically, including modifying temperatures and physical characteristics and changing hydrology, water levels, and flow paths. The Project will change the chemistry of water by introducing and/or mobilizing pollutants. The Project will also adversely affect the biological integrity of the impacted wetlands, rivers, and other surface waters by changing the biological community composition (e.g., converting forested wetlands to non-forested wetlands, introducing and spreading invasive species, etc.) and by changing the physical and chemical characteristics that influence biological community composition (e.g., alters benthic invertebrate community composition, aquatic life uptakes BCCs, etc.).
    - There are alternatives to the Project that would not lower the water quality in tribal ERWs and ORWs. A less

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environmentally damaging practicable alternative exists to the proposed Project, and as discussed in the MNRD Environmental Report (Attachment E of August 2024 comments), Line 78 (an existing pipeline) has capacity to transport products from Line 5. The MNRD Environmental Report (Attachment E of August 2024 comments) also discusses deficiencies in the alternatives analysis contained in the DCDD of the proposed alternatives submitted by the applicant. Thus, the Project's lowering of water quality is not necessary.

- However, if the lowering of water quality was indeed determined necessary, then the Project would need to support important social and/or economic development in the area where these waters are located. However, the Project does not support such important social and/or economic development goals. Consistent with the requirements under federal law for an antidegradation policy, water quality protection for ORWs is evaluated without precluding foreseen and unforeseen future economic and social development considerations. For example, the Bad River Reservation, Ashland, and surrounding areas, currently have shortages of homes for residents. The lowering of water quality that will be necessary to support essential residential development and the associated infrastructure (e.g., safe drinking water, basic sanitation services for human sewage, etc.) must be considered in the antidegradation evaluations for high quality waters, and this Project does not provide any benefit to that economic and social development goal. Another example is that the Project does not support the partnership and community efforts described in the Marengo River Watershed Action Plan, a nine-element watershed plan approved by both WDNR and EPA, to restore the current water quality impairments, meet water quality standards, and protect the water resources from further degradation. ADD?.
- As part of the pollution prevention requirements applicable to both ORWs and OTRWs, no increased loads of BCCs allowed. As previously discussed, the Project will introduce sources of BCCs including, but not limited to, PFAS and mercury. Due to the hydrologic connections between the waters crossed by the Project – including both surface waters and groundwater aquifers – and the Band's ORWs and OTRWs, BCCs discharged from the Project will result in increased loads of BCCs in the Band's ORWs and OTRWs.
- The Project will result in the lowering of water quality below the minimum levels required to fully support existing and

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designated uses in ERWs and ORWs within the Reservation. For example, Bear Trap Creek is an ORW when she flows into the Reservation, and Bear Trap Creek already has water quality impairments (e.g., excess sediments and nutrients, low dissolved oxygen levels, inadequate road crossings affecting water quality and flows and hindering aquatic life passage) and currently her existing and designated uses are not fully supported due to these impairments. This Project will further exacerbate the water quality impairments in Bear Trap Creek within the Reservation by directly crossing and impacting Bear Trap Creek, her tributaries (e.g., Little Bear Trap Creek), and wetlands connected to her – all of these upstream impacts (i.e., physical, chemical, biological) will affect downstream water quality. The scientific literature unequivocally demonstrates that streams, regardless of their size or frequency of flow, are connected to downstream waters and strongly influence their function (EPA, 2015). Also, according to EPA (2015), the scientific literature clearly shows that wetlands and open waters in riparian areas (transitional areas between terrestrial and aquatic ecosystems) and floodplains are physically, chemically, and biologically integrated with rivers via functions that improve downstream water quality. These systems act as effective buffers to protect downstream waters from pollution and are essential components of river food webs. Furthermore, there is ample evidence that many wetlands and open waters located outside of riparian areas and floodplains, even when lacking surface water connections, provide physical, chemical, and biological functions that could affect the integrity of downstream waters (EPA, 2015). Thus, considering both the literature and prior discussions of water quality impacts, the Project will not comply with the Band's antidegradation criteria as water quality in Bear Trap will be further lowered below the minimum level to fully support existing and designated uses (e.g., cultural, cool water fishery, aquatic life, recreational). Marengo River, an ORW within the Reservation, also currently has known water quality impairments (e.g., excess sediments and nutrients, unstable hydrologic conditions, loss and fragmentation of aquatic habitat) and whose existing and designated uses are not currently fully supported due to these impairments. This Project will further exacerbate the water quality impairments in Marengo River by directly crossing and impacting the river, many of her tributaries (e.g., Brunsweiler River, Trout Brook, Silver Creek), and connected wetlands – all of which influence downstream water quality. Thus, the Project will

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not comply with the Band's antidegradation criteria as water quality in Marengo River will be further lowered below the minimum level to fully support existing and designated uses (e.g., cultural, cool water fishery, aquatic life, recreational). Unlike Bear Trap Creek and Marengo River, the water quality in Tyler Forks River, an ORW, is not currently impaired, and this river is currently fully supporting existing and designated uses. However, the Project's significant adverse effects will hinder Tyler Forks River's (and her tributaries' and connected wetlands') water quality and ability to fully support existing and designated uses, such as cold-water fishery, cultural, and aquatic life uses. Furthermore, the Project will also not comply with the Band's antidegradation provisions regarding BCC loading to ORWs as previously discussed. Even watercourses designated as ERWs within the Reservation will be impacted by the Project in manner that degrades water quality and causes use impairments. For example, tributaries to the Marengo and Brunsweiler Rivers who are tribal ERWs (e.g., Billy Creek, Silver Creek, Trout Brook) will also experience adverse water quality impact due to the Project. These tributaries in the Marengo River Watershed currently have water quality concerns as described in the Marengo River Watershed Action Plan, and the Project will amplify these water quality challenges, hindering the ability for these tributaries to support their uses. There are also wetlands classified as ERWs within the Reservation who will be impacted by the Project. Riparian wetlands along Potato River, Tyler Forks, Bad River, Silver Creek, etc., that are classified as ERW wetlands within the Reservation are high quality and culturally important for the ecosystems they support. However, as discussed earlier in the letter, many impacts from the proposed Project will extend downstream to these floodplain wetlands, impacting their critical functions on the landscape with possible discharges of sediment, NLB seeds, contaminants of concerns, higher mean annual flows, and other changes to hydrology and water levels. While many of these riparian wetlands function as flood and stormwater storage for these streams and rivers and are ecologically dependent on floodwaters, increased sedimentation, invasive species, and higher, more frequent flows or other hydrologic changes will degrade these systems by impacting the floristic quality, smothering amphibian spawning sites with additional sediment,

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increasing habitat suitability in oxbows for sea lamprey[37], and introducing additional NLB loads. Thus, riparian ERW wetlands (Tyler Forks, Silver Creek, etc.) will not be able to fully support the wetland use, including critical wetland functions, due to the water quality impacts of the Project.

- These impacts to downstream ERW wetlands are expected to be long-lasting and persistent based on the analysis of MNRD and our experts as detailed in above sections and prior comments.

- Other projects with similar activities to this Project have resulted in the lowering of water quality. For example, the *Denomie Creek Tributary Modification to an Engineered Riprap Channel Case Study* (Attachment A) describes the lowering of water quality that occurred in Denomie Creek tributaries and connected wetlands, all who are designated as ERWs. This project within the Reservation boundaries caused adverse water quality effects, which is why the Band only partially approved the lowering of water quality and denied a portion of the lowering of water quality after MNRD had to issue two emergency approvals due to the project's design and implementation failures to prevent even more adverse water quality impacts from occurring. Even with the issuances of the emergency approvals, the duration of water quality impacts lasted longer for both the construction phase and the maintenance phase of this project than originally described in the application materials. The impacts continue today – after five years – as the project site has not met the stabilization criteria, requiring repeated impacts to the wetlands and tributaries within the access route and project site.

- *E.5.ii. Antidegradation Decision – OTRWs: An automatic denial will be issued for any request to create any new or increased discharges or alterations of the background conditions to Outstanding Tribal Resource Waters, or where the request proposes to lower water quality in a manner that is not short-term or temporary (no more than 6 months), or where that lowering of water quality would continue for longer than necessary, or where that lowering of water quality would not arise entirely from the circumstances outlined in the Antidegradation Implementation requirements above. If the short term, temporary lowering of water quality is necessary, the Water Resources Program shall recommend to approve all or part of the proposed short term,*

[37] See Mashkiiziibii Sea Lamprey Stewardship Plan (2024), which was developed among the Bad River Band of Lake Superior Chippewa, U.S. Fish and Wildlife Service (Marquette Biological Station), and Great Lakes Fishery Commission.

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temporary lowering of water quality to occur as necessary. The Tribal Council shall review the recommendation and decide whether to approve all or part of the proposed short term, temporary lowering of water quality. In no event may the decision reached under this section allow water quality to be lowered below the minimum level required to fully support existing and designated uses. The decision shall be subject to the public participation requirements of 40 CFR 25.

- First, the Project does not fall into any of the three categories of activities that are eligible for approval under the Band's Antidegradation Policy as described in provision E.3.ii. as the Project is: (a) not maintenance or repair of an existing pipeline, but rather construction of a new pipeline; (b) not a response action; and (c) not an action to restore culturally important species or their habitats, but rather the Project will adversely impact culturally important species and their habitats. Thus, the lowering of water quality on a short-term, temporary basis is not permittable.
- As previously described, the Project will lower water quality (refer to the ERW/ORW section above). Also as previously discussed, Enbridge incorrectly interprets the Band's WQS, such as the turbidity criteria. Enbridge's interpretation fails to acknowledge the Antidegradation Policy and provisions applicable to OTRWs. For example, RPS report (Executive Summary, p. viii) states the following regarding effects from an HDD installation, which does not comply with the Antidegradation provisions applicable to OTRWs, such as the Bad River, as the discharged bentonite is a new or increased discharge and an alteration of background conditions:
  - *"Nearly all of the discharged bentonite eventually settled within the model domain (the Bad River), regardless of river flow rate. The greatest deposition occurred near the release location, as well as toward the center of the river channe*l..."
- There are alternatives to the Project that would not lower the water quality in OTRWs. See discussion of this topic in the ERWs/ORWs section above. Thus, the Project's lowering of water quality is not necessary.
- As part of the pollution prevention requirements applicable to both ORWs and OTRWs, no increased loads of BCCs allowed. As previously discussed, the Project will introduce sources of BCCs including, but not limited to, PFAS and mercury. Due to the hydrologic connections between the waters crossed by the Project – including both surface waters and groundwater aquifers– and the Band's ORWs and

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OTRWs, BCCs discharged from the Project will result in increased loads of BCCs in the Band's ORWs and OTRWs.

- Furthermore, the lowering of water quality in OTRWs (e.g., Bad River, Potato River, Kakagon-Bad River Sloughs complex) due to this Project will be longer than the allowable short-term, temporary (no more than six months and no more than necessary) water quality impacts. As previously discussed in this document and in prior comments submitted by the Band, the duration of Project's water quality impacts will occur over a longer timeframe than evaluated by the Project proponent, Army Corps, and WDNR, even if solely focusing on the construction phase of the Project and not considering the maintenance and operational phases (these Project phases also need to be considered under antidegradation evaluations). One of the multiple examples of this is that the increased loads of BCCs from the Project that are discussed above does not comply with these duration requirements.
- The Project will result in the lowering of water quality below the minimum levels required to fully support existing and designated uses in OTRWs. For example, the reach of Bear Trap Creek where wild rice grows is an OTRW, and Bear Trap Creek already has water quality impairments and currently her existing and designated uses are not fully supported due to the water quality impairments. This Project will further exacerbate the water quality impairments in Bear Trap Creek by directly crossing and impacting Bear Trap Creek, her tributaries (e.g., Little Bear Trap Creek), and wetlands connected to her – all of these upstream impacts (i.e., physical, chemical, biological) will affect downstream water quality. Thus, considering both the scientific literature and the water quality impacts previously discussed, the Project will not comply with the Band's antidegradation criteria as water quality in Bear Trap will be further lowered below the minimum level to fully support existing and designated uses (e.g., wild rice, cultural, cool water fishery, aquatic life, recreational). Potato River is also an OTRW who will be directly crossed by the Project along with her tributaries (e.g., Vaughn Creek) and wetlands connected to her – all of these upstream impacts will affect downstream water quality. As previously discussed, the water quality in both Potato River and Vaughn Creek are already degraded by non-point source pollution, such as elevated suspended solids and nutrients (e.g., nitrate-nitrite), which affects the ability of these watercourse to fully support uses. The Project also directly crosses the Bad River upstream of the

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Reservation, and Bad River is an OTRW upon flowing into the Reservation. The Project also directly impacts all of her major tributaries (i.e., Potato, Tyler Forks, Marengo, and White Rivers), many smaller tributaries, and numerous connected wetlands, compounding the downstream impacts to water quality and uses. And although the Project does not directly cross into the Kakagon-Bad River Sloughs wetland complex – an OTRW and a Lake Superior coastal wetland system of local, regional, national, and international importance – all of the waters directly crossed by the Project are connected to the Sloughs. As previously noted, EPA (in a letter dated March 16, 2022) is also concerned about the adverse impacts from the Project to the Bad River and the Kakagon-Bad River Sloughs "because several waters with a nexus to this watershed are already impaired and/or are susceptible to receiving high loads of sediments" and that the "[P]roject may have 'substantial and unacceptable adverse impacts'" to these ARNIs, who are also OTRWs. The Band is already working on manoomin restoration efforts due to the decline of the wild rice beds over the years.

B. The Band's Other Water Quality Requirements – General Noncompliance

Although this analysis focuses on noncompliance concerns associated with the Band's WQS, it should be noted that the Band has a Wetland and Watercourse Protection Ordinance (Ch. 3.11, formerly Ch. 323), Environmental Response and Remediation Code (Ch. 3.25, formerly Ch. 380), and other codes that contain relevant water quality requirements. The Project – located upstream and hydrologically connected to Reservation waters – could have noncompliance concerns relevant to these codes.

For example, the Bad River Band's Tribal Code Ch. 3.25 Environmental Response and Remediation is part of Tribal law that… "applies to all activities within the exterior boundaries of the Reservation of the Tribe, as established pursuant to the Treaty with the Chippewa, 1854, 10 Stats., 1109 (Sept. 30, 1854) and any lands added thereto pursuant to federal law; all lands held in trust for the Tribe within the State of Wisconsin; all lands and resources over which the Tribe can demonstrate authority under federal Indian law; and all releases or threatened releases of hazardous substances on or to the foregoing, regardless of where the acts or omissions giving rise to the release or threatened release occurred." An upstream spill or release of hazardous substances or materials on the Bad River or in the Bad River watershed would likely affect the Bad River Reservation and its people. Environmental considerations for cleanup or remediation would then be forced on the Bad River Band if such an event occurred.

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The Wisconsin DNR's Final Environmental Impact Statement references the ability of a spill occurring during this project reaching all the way to Lake Superior saying that this line, "would cross the Bad River approximately 35 miles farther upstream from the location where the existing Line 5 crosses the Bad River, the oil would have more time to evaporate, be contained and removed, and more chances to strand on the shoreline with a spill from the proposed line. This suggests that less than 60 percent of the oil from the proposed line would reach Lake Superior." (Wisconsin Department of Natural Resources, 2024). The document further states that the… "remoteness of the Bad River Reservation, private land, and the lack of roads to access points along the larger rivers within the project area further contribute to the area being difficult to access. Clean-up and recovery from a major spill affecting these or other difficult-to-access areas would be difficult and could take years."

Regardless of percentage, any spill would require the utilization of "control" or "response" points being utilized to contain and clean up a spill. On the Bad River Reservation, there are seven currently proposed control points, part of Enbridge's Regional Field Emergency Response Plan. During high-flow scenarios, the first point (furthest upstream) would be unreachable due to access difficulties. The second point and third through sixth points are nearer US Hwy 2 in Odanah, WI. If a spill occurred during this Project into the Bad River, utilization of these control points on-Reservation would require heavy equipment, matting, and the potential removal of trees to make them suitable for use. This would mean that destruction of property and negative environmental effects would be needed to respond to a spill that did not happen on the Reservation. In all actualized spill responses, not just modeling for negative consequences, the effectiveness of containment or control comes down to timing. Spill response requires both immediate attention and notifications, and if not then effects can go unnoticed or be too late to make a difference (Case Study Mellen DOT Inadvertent Release, Attachment C).
According to Tribal Code Ch. 380 Environmental Response and Remediation, the Bad River Band would have jurisdiction in such an instance and would need to direct a response. Noncompliance issues from a spill, and trespassing, would occur if these control points were utilized freely. Furthermore, utilization of these control points, as currently described, would mean that miles of the Bad River throughout the Reservation would be affected by an oil spill.

V. TREATY RIGHTS AND ENVIRONMENTAL JUSTICE

The Bad River Band of Lake Superior Chippewa and its members retain treaty rights under the Treaties of 1837, 1842, and 1854 and continue to exercise their rights on the Reservation and throughout the ceded territory. *See* Treaty with the Chippewa, 7 Stat. 536 (1837) ("1837 Treaty") and Treaty with the Chippewa, 7 Stat. 591 (1842) ("1842 Treaty"). An extensive background of

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the Band's treaty rights was provided in our March 2022 letter to the Army Corps and reiterated in our August 2024 letter to the Corps.[38]

The Proposed Reroute, although outside of the Reservation, is still within treaty-reserved ceded territory. Pipeline construction within ceded territory can impact treaty resources by eliminating high quality habitat and wetlands. Construction will further have dramatic changes to the ecosystem, such as through trenching and blasting, which may impact treaty resources or activities. Band members also engage in water-based or water-related activities within ceded territory, including gathering materials for crafts, ceremonies, fishing, and hunting. The Proposed Project will alter the habitat and ecology of the entire area, changing the availability of faunal and floral species essential to traditional activities and altering the areas where the Band can encounter these treaty-reserved resources.

The waters that are impacted by the Project – including the Bad River, Tyler Forks River, Marengo River, Potato River, White River, Beartrap Creek, Silver Creek and their tributaries – are rivers and streams adjacent to and within the Band's Reservation. These waters are all also within ceded territory and have been part of the Band's homeland for centuries. The Band is dependent on these surrounding waters to sustain the Reservation and homeland. The hydrological connections of this area do not adhere to Reservation boundaries. Although this analysis is focused on impacts within the Reservation to waters under MNRD's jurisdiction, the upstream impacts of the Project will adversely affect ceded territory. These impacts are not adequately accounted for in Wisconsin's water quality standards analysis or 401 certification for the Project.

Further, the operation of the project poses environmental justice concerns in addition to potential violations of the Band's water quality standards. The placement of the Reroute Project surrounds the Reservation and places the pipeline directly upstream of the Reservation. The Band has experience with Enbridge's failed maintenance of the existing Line 5 pipeline and is reasonably concerned of a potential pipeline spill, breach, or rupture. A pipeline failure would be catastrophic to the entire Reservation and the downstream resources that Reservation waters support. These additional environmental effects are significant, potentially catastrophic, and are absorbed by the Band rather than the general public.

These impacts raise significant concerns with respect to the Band's Treaty rights and environmental justice. For example, the Project will result in a loss of Band members' ability to exercise their treaty rights within the Project area, will result in the destruction of diverse wetlands in the ceded territory and have adverse impacts to the Band's Reservation, including violations of the Band's federally approved water quality standards. Further, the possibility of an oil spill from pipeline operations poses a grave threat to Reservation waters and the downstream ecosystems that they support, such as the Kakagon and Bad River Sloughs and manoomin. Both the EPA and

[38] The March 2022 and August 2024 letters to the Corps also highlight the Corps' failure to consider the impacts that the Corps' approval will have on the Band's treaty rights. Specifically, the Corps has not yet considered in its analysis that Wisconsin's felony trespass law, Wis. Stat. § 943.143, will have an impact on Band members and their ability to exercise treaty rights within the pipeline right-of-way. The pipeline right-of-way will encircle the reservation and can deter those with treaty-protected rights from accessing areas within ceded territory.

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Army Corps have a trust responsibility to protect the Band's Treaty rights and must comply with environmental justice principles.

VI. CUMULATIVE IMPACTS

In addition to the Project's direct and indirect impacts on water quality, the Band is also concerned with the Project's contribution to cumulative impacts. Cumulative impact assessments take significant time and resources to complete. According to the EPA, a cumulative impacts assessment "is the process of accounting for cumulative impacts in the context of problem identification and decision-making. It requires consideration and characterization of total exposures to both chemical and non-chemical stressors, as well as the interactions of those stressors, over time across the affected population" (U.S. EPA, 2022). This Project does not take into account the community's well-being, non-chemical stressors, potential multiple pathways to exposure, community vulnerability, nor past exposures, as defined in the plan. The Band is currently implementing a cumulative impact assessment project with federal agencies, including the U.S. EPA, U.S. Geological Survey, and Indian Health Service, focusing on hydrology, human health, and water quality (refer to Attachment 3 of Attachment L to the Band's 2024 Comment on Corps DCDD along with Attachments E-H of this letter).

VII. RECOMMENDATIONS

The Corps should not issue the Section 404 Permit because no adequately protective permit conditions can be imposed, based on the Project as designed and permitted, to prevent violations of the Band's water quality standards discussed throughout this analysis. Those violations would also result in infringements on the Band's Treaty rights and violate environmental justice principles. Put simply, the Project has not been evaluated, designed, or permitted to comply with the Band's water quality standards.

Because construction methods and locations of impacts are described without the requisite site specificity, determining the full extent of Project impacts is impossible. While our evaluation of the currently available information makes clear that the proposed Project will impermissibly affect the Band's water quality standards, the actual impacts could be even greater due to inadequately assessed baseline conditions and impacts. In addition, monitoring provisions described in the FEIS and in the Project permits and other approvals are entirely inadequate. In order for monitoring to be meaningful to assess impacts, restoration, and long-term conditions, agencies and the applicant must work from robust baseline data covering multiple years. Moreover, a comprehensive monitoring plan should address the potential range of responses to problems that could arise during the years' and decades' long restoration the Project would require. Unfortunately, such responses to the likely occurrences of inadequate restoration or greater-than-anticipated impacts are often left vague.

In the absence of robust baseline data, adequate consideration of impacts, and realistic plans to minimize, restore, and mitigate impacts, the Project will result in discharges that reach Reservation waters and wetlands and do not comply with the Band's standards. That circumstance will result in long-term harm to Bad River Reservation waters and wetlands, to the flora and fauna that depend upon those resources, and to the Band's members. Thus, based on the information available to the

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Band, there are no conditions that can ensure the Project will not violate the Band's water quality standards.

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ATTACHMENT 1

REGION 5
CHICAGO, IL 60604

December 13, 2024

Robert Blanchard, Tribal Chair
Bad River Band of Lake Superior Chippewa Indians
P.O. Box 39
Odanah, WI 54861-0039
Submitted via email to R.Blanchard@badriver-nsn.gov

Re: Notification under CWA § 401(a)(2) Regarding Enbridge Line 5 Reroute Project in Ashland and Iron Counties, Wisconsin

Dear Chairman Blanchard:

On November 15, 2024, the U.S. Environmental Protection Agency Region 5 received notice from the U.S. Army Corps of Engineers (Corps) of the enclosed application for a federal permit and water quality certification under section 401(a) of the Clean Water Act (CWA). The certification was issued by the state of Wisconsin for a proposed CWA § 404 Individual Permit to be issued by the Corps for the Enbridge Line 5 Reroute project located in Ashland and Iron counties, Wisconsin. Following receipt of this notice, the EPA reviewed the permit application and related certification for the project under CWA § 401(a)(2). In accordance with CWA § 401(a)(2) and 40 C.F.R. § 121.13(b), the EPA has determined that a discharge from the proposed project may affect the Bad River Band of Lake Superior Chippewa Indians' water quality.

I am attaching a copy of the permit application and related certification, in accordance with 40 C.F.R. § 121.13(c)(2). Pursuant to CWA § 401(a)(2) and 40 C.F.R. § 121.14, the Bad River Band of Lake Superior Chippewa Indians has 60 days after this notification to notify the Regional Administrator and the Corps, in writing, if it determines that the discharge will violate any of its water quality requirements, to object to the issuance of the Federal license or permit, and to request a public hearing from the Corps.

If you have any questions, you may contact Allie McDavid at mcdavid.alaina@epa.gov or 312-886-7236.

Sincerely,

12/13/2024

X David Pfeifer

David Pfeifer
Manager, Watersheds and Wetlands Branch
Signed by: DAVID PFEIFER

Enclosures:

1. Wisconsin Department of Natural Resources Clean Water Act Section 401 Water Quality Certification Decision on the proposed Enbridge Line 5 Reroute Project in Ashland and Iron Counties, Wisconsin

2. St. Paul District Public Notice for Proposed Enbridge Line 5 Reroute Project in Ashland and Iron Counties, Wisconsin issued January 6, 2022

cc (via email w/enclosures):

Naomi Tillison, Director, Natural Resources Department, Bad River Band of Lake Superior Chippewa Indians (nrdirector@badriver-nsn.gov)

James Yach, Director, Northern Wisconsin-Wisconsin Department of Natural Resources, (JamesA.Yach@Wisconsin.gov)

Bill Sande, Project Manager, U.S. Army Corps of Engineers, St. Paul District, (William.M.Sande@usace.army.mil)

Rebecca Graser, Regulatory Division Deputy Chief, U.S. Army Corps of Engineers, St. Paul District, (Rebecca.M.Graser@usace.army.mil)