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U.S. Army Corps of Engineers
St. Paul District, Regulatory Division
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RE: Analysis of the Bad River Band of Lake Superior Chippewa Supporting the Band's Determination under CWA 401(a)(2) that the Proposed Enbridge Line 5 Reroute Will Violate the Band's Water Quality Requirements

St. Paul District file number MVP-202000260

Our File No.: 126644-2831991

To Whom it May Concern:

The Bad River Band of the Lake Superior Chippewa, a federally recognized Indian tribe, submits the analysis and evidence supporting its determination under CWA 401(a)(2) that discharges from the Proposed Enbridge Line 5 Reroute will violate the Band's water quality requirements and standards, and no conditions could be imposed on the permit that would prevent such violation.

These materials supplement the Band's *February 11, 2025 Clean Water Act Section 401(a)(2) "Will Affect" Analysis For Enbridge Energy's Line 5 Wisconsin Segment Relocation Project*, and the Band's expert and technical presentations during the May 13-14, 2025 public hearing ("the Hearing").

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1. The Band and its Reservation

The Bad River Band of the Lake Superior Chippewa is a signatory or successor to the Treaty of 1842 and the Treaty of 1854. Its life is rooted in a connection to the natural world, the source of our health and wellness for the past, present, and future generations making the Band's relationship with the natural world sacred. Nibi (water) is the first medicine to the Chippewa, the blood of the Band's mother, the earth, and the Band knows that clean water is fundamental to the life of all peoples.

The Waabishkaa-ziibi (White River), Mashkiigon-ziibi (Bad River) and Anishinaabeg-gichigami (Lake Superior) and other Reservation waters are places that are full of life and death, and the natural waters found in these places continues to give life to plants and animals, and from these we are blessed with food and medicine, and the natural groundwater and springs found in these places continue to clean water, and from these the Band is blessed with drinking water. These places are traditional cultural places, archeological and historical sites, and include minerals, plants and animals whose health and well-being are necessary for the Band's health and well-being. The Band's water resources are described in detail in the Institute for Environmental Studies: *Water Resources of the Bad River Reservation* (Spring/Summer 1994), appended hereto as **Appendix 1**; the *Current conditions of Rivers and Streams on and Around the Mashkiiziibii Reservation*, **Appendix 2**; the Band's Water Quality Standards, **Appendix 3**; the *Water Resources of the Bad River Indian Reservation, Northern Wisconsin* (USGS 1995), **Appendix 4**; and *Groundwater/Surface-Water Interactions in the Bad River Watershed, Wisconsin* (USGS 2015), **Appendix 5**.

The Band is organized under the Indian Reorganization Act of 1934,[1] and is formally recognized by the Secretary of the Interior as enjoying the privileges and immunities that accompany tribal status, including its government-to-government relationship with the United States.

The Band is party to three treaties with the United States: Treaty with the Chippewa (July 29, 1837),[2] Treaty of La Pointe (October 4, 1842),[3] and Treaty with the Chippewa (September 30, 1854),[4] which established the Reservation as the Band's permanent homeland. These treaties remain in effect today. Copies of the treaties are appended hereto as **Appendix 6**.

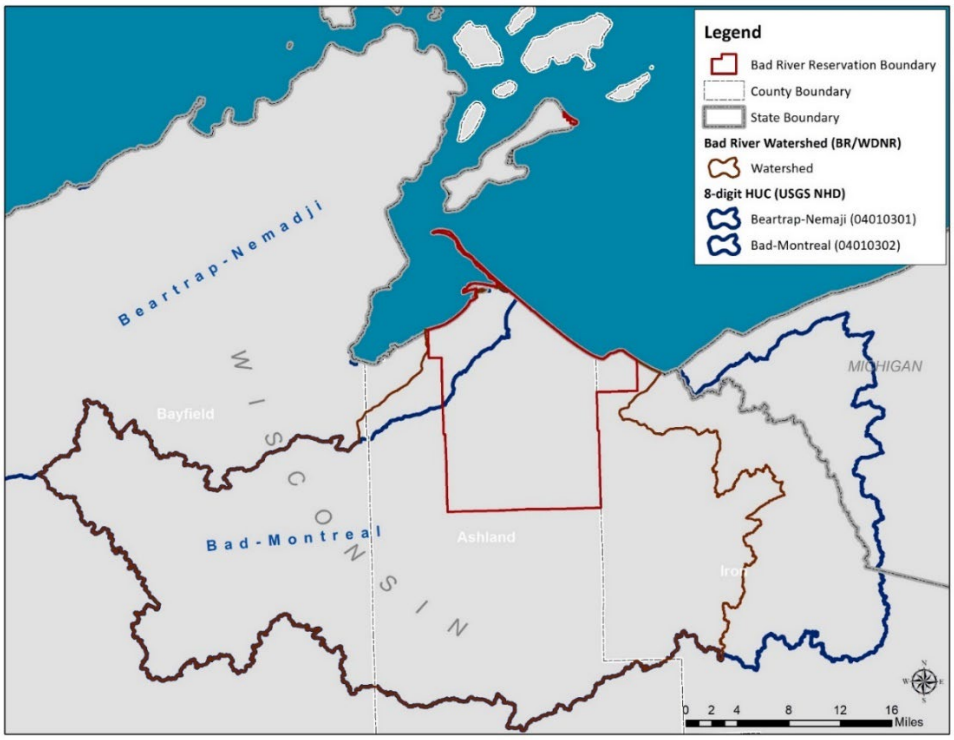
[1] 25 U.S.C. § 5123.
[2] 7 Stat. 536.
[3] 7 Stat. 591.
[4] 10 Stat. 1109.

The Reservation encompasses 124,655 acres: 124,459 acres on the mainland and 196 acres on Madeline Island. The entire Bad River Reservation falls within the Lake Superior Basin. The Reservation mainland occupies a downstream portion of the USGS Bad River-Montreal Subbasin[5] and the Beartrap-Nemadji Subbasin.[6] The Band and the State of Wisconsin have recognized the Bad River Watershed as the watershed boundary draining lands upstream of the mainland Reservation, including all of the Bad River-Montreal Subbasin (aside from the Montreal HUC10) and the Beartrap Creek Subwatershed[7] from the Beartrap-Nemadji Subbasin.

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. The data used by Enbridge, and relied upon by the Corps and the EPA in defining the contaminant pathways from the Line 5 Reroute corridor to the Reservation, considerably underestimate the magnitude of the hydrologic connections between the Line 5 Reroute impacts and the waters of the Reservation through both streams and wetlands.[8]

The current condition of the wetlands and watercourses around the Reservation – prior to the impacts to those resources that would be caused by the Line 5 Reroute – are described in **Appendix 2**.

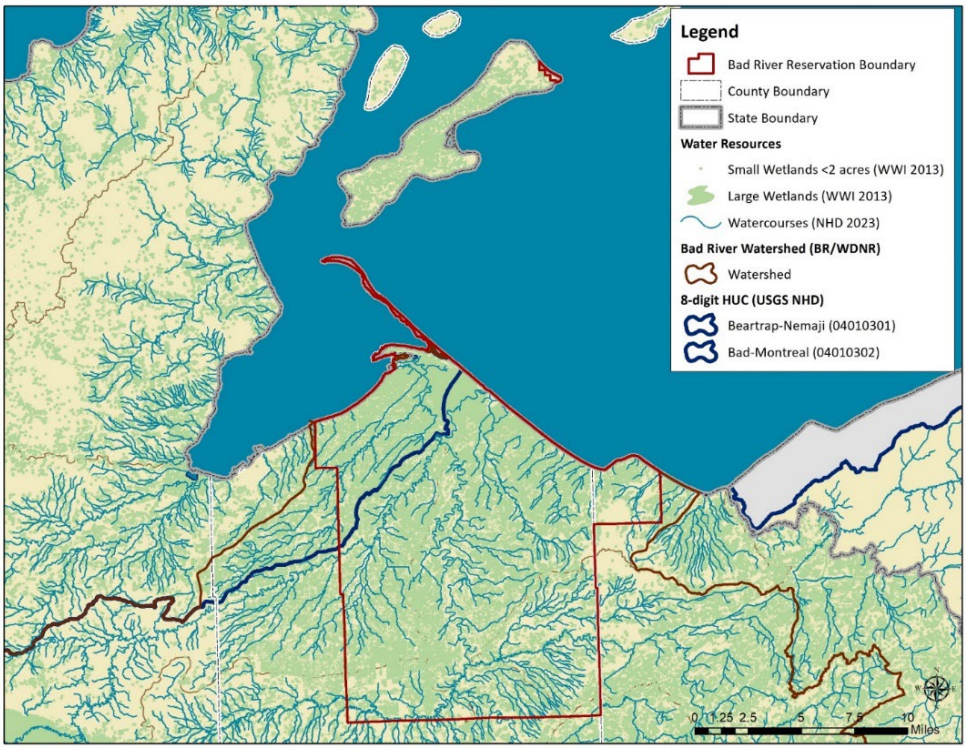
[5] USGS NHD 8-digit hydrologic unit code (HUC) 04010302.
[6] USGS NHD 8-digit HUC 04010301.
[7] HUC12.
[8] *See* Appendix 7, Esteban Chiriboga, *Surface Water Connections Between the Proposed Line 5 Reroute and the Bad River Reservation – Preliminary Memo*. Great Lakes Indian Fish and Wildlife Commission (June 6, 2025) (Connectivity Memorandum).



The Band possesses inherent sovereignty and exercises the powers of self-government over the Bad River Reservation. The Band and its members have federal treaty rights to the lands, waters, and natural resources within the Reservation and ceded areas. At the time of its establishment in 1854, the Reservation remained largely wilderness and vast wetlands interlaced with a network of rivers and streams, including the Kakagon River, the White River, and the Bad River, all flowing northerly across the clay deposits of the Reservation and into Lake Superior. Band members and their forebears had stewarded these lands and waters for centuries.

The Reservation includes 38 miles of Lake Superior shoreline (36 miles of shoreline on the mainland and 2 miles of shoreline on Madeline Island), 52,554 acres of mapped wetlands[9] (52,506 acres on the mainland and 48 acres on Madeline Island), 545 acres of lakes and ponds (543 acres on the mainland and 2 acres on Madeline Island), and 475.01 miles of streams.[10]

[9] WWI 2013.
[10] NHD 2023.



Under the Band's continuing stewardship, the wetlands of the Reservation, and the densely interlaced network of rivers and streams that feed and replenish them are recognized by international treaty as among the most sensitive freshwater estuarine ecosystems on Earth, a thriving refuge for innumerable flora and fauna including many threatened and endangered species. They support critical treaty fisheries and wild rice beds.

The wild rice beds within the Reservation stand as the largest remaining beds on the Great Lakes and among the largest and healthiest left in the world. Band members continue to protect and harvest the rice beds, using methods handed down from one generation to the next for centuries.

The Kakagon and Bad River Sloughs comprise one of the world's last and best remaining examples of an intact freshwater estuarine ecosystem, one that includes numerous threatened and endangered plants and animals and the only remaining extensive coastal wild rice beds in the Great Lakes region. As the WDNR has put it, these sloughs "may be the largest freshwater estuarine system of this size, type and quality in the world." The complex makes up 13% of Lake Superior's coastal wetlands.

In 2012, the United States designated the Kakagon and Bad River Sloughs as a Wetland of International Significance (a "Ramsar Site") under the 1971 Convention on Wetlands of International Importance, which provides for international cooperation among more than 170 countries for the conservation of the world's most critical wetland habitats.

The U.S. National Park Service designated the Bad River-Kakagon Slough complex as a National Natural Landmark in 1973, describing it as "an excellent representative of a true freshwater delta by virtue of its large size, complex mixture of marsh, bog and dune vegetation types, and undisturbed condition."

Most of the Reservation is in the downstream third of the Bad River Watershed, which comprises approximately 1,000 square miles. The hydrologic connections between the Reservation and the watershed mean that activities upstream of the Reservation can and do impact the water quality of downstream tribal waters. The Band's waters are also influenced by Chequamegon Bay and Lake Superior, and thus activities affecting Chequamegon Bay and Lake Superior can and do impact the water quality of tribal waters.

The Band's centuries-long stewardship of the lands and waters within and around the Reservation is evidenced today in a broad range of natural resource protection activities. While the Band is a small tribe of modest means, its Mashkiiziibii Natural Resources Department (MNRD) is a forefront feature of its tribal government and widely regarded for its expertise and dedication in protecting the Reservation environment. The MNRD includes specialists in fisheries, wildlife, water, air quality, environmental contamination and monitoring, wetlands hydrology and chemistry, manoomin (wild rice), forestry, climate change, and invasive species.

The MNRD's mission is:

- To uphold the tribal constitution and to implement the policies and regulations duly adopted and enacted by the Band as they relate to management and protection of the tribal natural resources;

- To provide technical assistance to the Band in the protection, conservation, development and management of the natural resources throughout the Reservation and its treaty fishing waters in Lake Superior, thereby insuring access to traditional pursuits by present and future members of the Band;

- To facilitate the development of institutions of tribal self-governance to ensure the continued sovereignty of the Band in the regulation and management of its natural resources;

- To extend the mission to maintain ecosystem integrity, recognizing that all forms of life cannot be sustained long-term in an environment that has been degraded;

- To use the best available science and affordable technology in efforts to protect the ecosystem and the broader environment;

- To infuse traditional tribal values into the daily activities of the MNRD and manage the natural resources with the respect traditionally given them.

Reflecting the mission statement, the MNRD strives for resource management that both conserves the natural resources for future generations and provides for the needs of the present. The MNRD's existence reflects the importance the Band places on its right and ability to exercise sovereignty, self-determination, and self-regulation in the area of natural resource management.

2. The Clean Water Act

The Clean Water Act ("CWA") was enacted to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."[11] The nation's waters protected by the CWA have been broadly construed so as to include wetlands.[12]

Wetlands are areas inundated or saturated with surface or ground water, including swamps, marshes, and bogs. The Corps has recognized that wetlands "play a key role in protecting and enhancing water quality."[13] As federal courts have noted:

> Freshwater wetlands are ecologically valuable for various reasons. They act as a natural flood control mechanism by slowing and storing storm water runoff. They help supply fresh water to recharge groundwater supplies. They serve as biological filters by purifying water as it flows through the wetlands. They provide seasonal and year-round habitat for both terrestrial and aquatic wildlife.[14]

[11] 33 U.S.C. § 1251(a).
[12] *See United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 131-39, 88 L. Ed. 2d 419, 106 S. Ct. 455 (1985).
[13] *Riverside Bayview Homes*, 474 U.S. at 133.
[14] *United States v. Cumberland Farms of Connecticut, Inc.*, 826 F.2d 1151, 1153 (1st Cir. 1987) (citing 33 C.F.R. § 320.4(b) (1986)), *cert. denied*, 484 U.S. 1061, 108 S. Ct. 1016, 98 L. Ed. 2d 981 (1988).

In monitoring the discharge of dredged or fill materials under the CWA, the Corps issues both individual permits, which require the making of individual applications, and general permits, which do not require individual applications.

Under the CWA, states and tribes are empowered to set more stringent water quality standards than those set by the Act and its attendant regulations. Under section 401(a)(2), if a tribe determines that discharges from a certain category of activity will not meet tribal water quality requirements, and there are conditions that can be imposed that would ensure compliance with those requirements, the federal government is prohibited from authorizing the activity by federal permit.

A tribe's authority to grant or deny water quality certification is central to its ability to ensure the protection of water resources within its borders. The ability of the Band to enforce its own more stringent water quality standards is consistent with the legislative purpose and history of the Clean Water Act. In stating the overall goals of the Act, Congress declared its policy "to recognize, preserve, and protect the primary responsibilities and rights of States [and tribes] to prevent, reduce, and eliminate pollution" of their waters.[15]

The legislative history of section 401 confirms that Congress intended to give states [and tribes] power over the grant of federal permit authority for activities potentially affecting a state's or tribe's water quality.[16]

The plain language of the CWA and the cases that have construed it provide that the Band is the primary resource agency responsible for water quality, and it is reasonable for the Corps to rely on the Band's determination of the effects of the Project on its water quality.[17]

The Band has established that discharges from the Project will affect the Band's water quality requirements and violate its water quality standards. The authority to make this determination is the Band's alone. Neither the state of Wisconsin, the EPA, nor the Corps can second-guess the Band's conclusions.

[15] 33 U.S.C. § 1251(b).
[16] *United States v. Marathon Dev. Corp.*, 867 F.2d 96, 99 (1st Cir. 1989).
[17] 33 C.F.R. § 320.4(d); *Ohio Valley Envtl. Coal., Inc. v. United States Army Corps of Eng'rs*, 883 F. Supp. 2d 627, 639 (S.D. W. Va. 2012).

3. "May Affect" and "Will Affect" Determinations

On November 14, 2024 Wisconsin Department of Natural Resources (WDNR) issued a Clean Water Act Section 401(a)(1) Water Quality Certification for the Enbridge Line 5 Wisconsin Segment Relocation Project (WQC) that included 231 conditions required to ensure compliance with Wisconsin's water quality standards.

On December 13, 2024 the EPA notified the Band that, following its review of the permit application and the WQC, the EPA had determined that a discharge from the proposed project may affect the Band's water quality.

Indian tribes with § 401 TAS status, which the Band has had since 2009, are accorded the status of "neighboring jurisdictions" for purposes of § 401(a)(2). Once a tribe has determined that a discharge under a proposed permit will affect the tribe's water quality standards, the Clean Water Act prohibits the issuance of any permit that cannot ensure compliance with a tribe's applicable water quality requirements.[18]

The Band thereafter determined that the Project will result in noncompliance with the Band's water quality standards. The Band provided the Corps and the EPA with its determination, including an explanation of the reasons supporting its determination, and the identification of those water quality requirements that will be violated. The Band timely objected to the Line 5 Reroute permit and requested a public hearing.

The EPA subsequently concluded that discharges from the Line 5 Reroute will not affect the quality of the Band's waters so as to violate any of its water quality requirements. By its own admission, the EPA did not consider all of the Band's modeling and technical analysis in making its determination.

The Band – not EPA - must be treated as the expert on its own water quality standards. The Band's determination that the Line 5 Reroute will violate its water quality requirements is what is dispositive of the issue, and the Band must be afforded deference in interpreting its regulations.[19]

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[18] 33 U.S.C.S. § 1341(a)(2).

[19] *In re City of Annandale*, 731 N.W.2d 502 (Minn. 2007) (state agency entitled to deference in interpreting its own water quality standards); see, also, 33 C.F.R. § 320.4(d); *NRDC v. Metro. Water Reclamation Dist. of Greater Chi.*, 175 F. Supp. 3d 1041, 1053 (N.D. Ill. 2016), quoting *Illinois Envtl. Prot. Agency v. Illinois Pollution Control Bd.*, 386 Ill. App. 3d 375, 381, 896 N.E.2d 479, 485, 324 Ill. Dec. 693 (2008) (Illinois EPA is "the 'gatekeeper of assuring clean water in Illinois' by assuring that any permit issued will not cause a violation of the [Clean

The Corps, with the full record before it, should accept the Band's recommendation and decline to permit the Line 5 Reroute.

4. The Band's Water Quality Standards and Wetland Protections

In 1987, Congress amended the Clean Water Act to authorize EPA to treat Indian tribes as states and granting tribes jurisdiction to regulate their water resources in the same manner as states. Congress's authorization for EPA to treat Indian tribes as states preserves the right of tribes to govern their water resources within the comprehensive statutory framework of the Clean Water Act.[20] The Band has had Treatment as State (TAS) authority under the Clean Water Act since June 26, 2009. EPA has approved the Band's water quality standards, which apply to all waters of the Reservation.

For over 25 years, the Band has conducted a comprehensive water quality monitoring program to evaluate the water quality of the Reservation's waters. The MNRD is charged with implementing and enforcing numerous laws enacted by the Tribal Council for the protection of Reservation lands and natural resources, including the Band's Water Quality Standards; the Water Quality Certification and Water Quality Review Code, Chapter 3.12; the Bad River Sloughs Protection Ordinance, Chapter 3.18; and the Wetland and Watercourse Protection Ordinance, Chapter 3.11. Copies of these codes are appended hereto as **Appendix 3**.

The Band's water quality standards consist of designated uses, narrative and numeric criteria to protect those uses, and anti-degradation provisions. These standards are required under the CWA[21] and each element is equally as important as another.[22]

The Band's water quality standards designate all waters within the Reservation as high-quality waters (Exceptional Resource Waters, or EPA Tier 2, or above). Among other things, the Band's water quality standards protect Band members in their exercise of their Treaty rights and the uses

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Water] Act or [Illinois'] administrative regulations."); *Ohio Valley Envtl. Coal., Inc. v. United States Army Corps of Eng'rs*, 883 F. Supp. 2d 627, 639 (S.D. W. Va. 2012) ("A § 401 certification is considered conclusive, and no independent analysis of the certification is required").

[20] *City of Albuquerque v. Browner*, 97 F.3d 415, 418 (10th Cir. 1996).

[21] 40 CFR § 131.6(a), (c), and (d).

[22] *PUD v Washington Dept. of Ecology*, 511 US 700, 730, 128 L Ed 2d 716, 114 S Ct 1900 (1994).

of water for subsistence purposes and health and to maintain their cultural and spiritual identity and traditions. As the Band's water quality standards code acknowledges:

> The history of the Bad River Band, as well as our future survival and growth, is inextricably intertwined with pure water. Anishinabe considers Nibi, Water, as the most sacred living part of our Mother, the Earth. Without water, there is no life. Water, is the life-blood of our Mother the Earth, and without healthy blood, illness prevails. Water is a finite resource, with its health being contingent on all sides of the environment that surrounds the water: above, below, and all around. Water is a primary component in the migration story of the Anishinabe people, and the migration story describes a search for a place where food grows on the water; that food is wild rice. The waters flowing throughout the entire Bad River Reservation provide a variety of sacred resources, such as Manomin (wild rice), Name (lake sturgeon), Ogaa (walleye), and other fish and game species, and serve as critical navigation routes that we rely upon for cultural, subsistence, health and economic wellbeing. Although water quality standards are set within certain borders; water knows no boundaries. It is a living, moving part of life that changes with its surrounding environment, and as it changes it carries the burdens and illnesses of past environments until it heals. Because the Tribe's cultural and spiritual identity, as well as the Tribe's health and welfare depend upon maintaining and advancing the pristine quality of Tribal waters, the promulgation and enforcement of these Tribal water quality standards are essential to us. The Tribe is promulgating these standards to protect our political integrity, economic security, and health and welfare.

The Water Quality Certification and Water Quality Review Code, Chapter 3.12, establishes procedures and standards for the review of applications for tribal water quality certification under CWA Section 401(a)(1), tribal water quality reviews under CWA Section 401(a)(2), and tribal water quality reviews of proposed federal and state permits that may affect the waters of the Reservation. The code establishes procedures for the Band's review of federal and state general permits for the consistency with the Band's Water Quality Standards, and established the duty and authority of the MNRD to implement the code for the protection of Reservation waters.

The Sloughs Protection Ordinance, Chapter 3.18, applies to all areas within the external boundaries of the Reservation and prohibits motorboat use within sensitive vegetation areas in riparian zones; excess speed in Slow-No-Wake zones; wakes when watercraft are passing; paddling through emergent vegetation (instead a push pole must be used); use of non-indigenous bait when fishing; and pesticide applications from a period of time from within 14 days of the start of the manoomin (wild rice) harvest season until after the harvest has officially closed. The

purpose of the ordinance is to combat existing and recurring risks of impacted wetland acreage, impaired waters, incremental impacts, and loss of access to treaty uses.

The Wetland and Watercourse Protection Ordinance, Chapter 3.11, is a tribal code similar to CWA Section 404, but is more protective. The ordinance's focus is to avoid, minimize, and mitigate impacts to wetlands and watercourses to ensure healthy and functioning wetlands and watercourses for the Seventh Generation. It applies to all lands within the exterior boundaries of the Reservation, and allows for the consideration of cultural, welfare, tribal rights, groundwater protection, and other factors in permitting decisions. The code also establishes enforcement procedures for unpermitted impacts to wetlands and watercourses.

The Band has adopted an **Integrated Resources Management Plan** (IRMP), which focuses on protecting the water resources of the Reservation by implementing Resource Management Areas and setting water-related goals. The Band's Resource Management Areas under the IRMP include Conservation Areas, Watershed Protection Areas, and Restoration Areas. A copy of the IRMP is appended hereto as **Appendix 8**. Conservation Areas are managed primarily for their natural ecological and cultural values and will be protected from timber harvest activities as well as future residential, industrial and recreational development. Watershed Protection Areas are managed to protect the water quality of streams, rivers, lakes, and wetlands and require a 100-ft buffer on slopes of 15% or greater and open water areas. Restoration Areas are managed to increase biodiversity and habitat and include an extended buffer from 100-330 feet out from Water Protection Areas.

The Band's water-related goals under the IRMP include conserving existing wetlands and restoring degraded wetlands, protecting the quality of near pristine surface water, improving the quality of waters impacted by point and non-point source pollution, and protecting and improving the Reservation groundwater quality.

The MNRD works closely with other entities on a variety of environmental research and preservation matters – including the EPA on water quality, air quality, public health, and other environmental issues; the University of Wisconsin on wild rice/sediment relationships and macroinvertebrate research; the U.S. Geological Survey on river channel stability, sediment transport, and flooding; local watershed groups on water quality and watershed management best practices; the U.S. Fish and Wildlife Service and WDNR on a variety of fisheries and wildlife-related endeavors; and other upper Great Lakes Indian tribes (through the Great Lakes Indian Fish & Wildlife Commission, "GLIFWC") on a broad range of natural resource management matters.

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.

5. The Band Has Established that Impacts from the Line 5 Reroute Construction Means and Methods Will Violate the Band's Water Quality Standards

The Line 5 Reroute would allow the installation of a pipeline across 41.1 miles of the Lake Superior basin—across all the major tributaries to the Bad River Reservation—through uplands and wetlands and watercourses. There are four primary methods of installation: trenching, road bore, horizontal directional drilling, and direct drill. Each of these activities and the work that supports them, like the construction of 30.97 miles of access roads, will disturb the soil. Once soil is destabilized by the applicant's activities, the transport of sediment will commence due to wind and water erosion as well as the tracking of materials off the project sites due to equipment operation.

As the Band established in its "Will Affect" letter, the technical analysis and modeling it provided to the EPA and the Corps, and in this letter, the Line 5 Reroute will violate the Band's water requirements and its water quality standards. The Line 5 Reroute will change wetland hydrology and ecosystem structure and release mercury and promote the formation of methylmercury in an already mercury-impaired watershed. Modifying wetland hydrology through trenching and blasting also creates a significant risk of the mobilization of mercury and methylmercury from wetland soils and peat due to changes in saturation and redox conditions.

The Line 5 Reroute will cause impacts that violate the Band's water quality and flow alteration standards, and have both temporary and permanent negative impacts on groundwater quantity, quality, and related natural resources and beings.

It will cause changes to hydrology that neither the EPA nor the Corps appears to have considered. These include near-term impacts during and immediately following construction, as well as long-term impacts from right-of-way ("ROW") maintenance and other pipeline activities, increasing erosion and sedimentation. Construction means and methods, including the use of timber construction matting, will have temporary, long-term, and permanent impacts to downstream wetlands and waters of the Reservation due to the loss of microtopography, loss of soils, and hydrologic changes to surface and groundwater flow. These are changes that construction best management practices (BMPs) and the 231 conditions required by the Wisconsin Water Quality Certification will not prevent.

Increased flow and flooding of waters that flow into the Reservation, with correspondingly increased turbidity and sedimentation, violate the Band's numeric and narrative water quality standards, designated uses, and antidegradation policy. The almost certain likelihood of inadvertent return of horizontal directional drilling fluid – already demonstrated on Enbridge's Line 3 project – will adversely impact waterbodies and wetlands due to the high concentration of suspended solids in the released drilling fluid.

The Line 5 Reroute will disturb soil, remove native species and shrub cover, and increase human activities in the area. This will result in the spread of invasive species that already exist within the project site and introduce new species when equipment, materials, and personnel are brought in from off site. The discharged biological pollutants will travel downstream and pollute Reservation waters, violating the Band's water quality standards. As these pollutants travel onto the Reservation waters and establish new populations they will further degrade wetland functions and water quality by outcompeting native species that support the current wetland functions and water quality conditions, in violation of the Band's water quality standards.

All of these impacts to the Band's water requirements and violations of its water quality standards will be caused by the Line 5 Reroute, and no conditions could be attached to a permit to prevent it.

a. The Line 5 Reroute will Mobilize Mercury into an Already Mercury-Impaired Environment

The waters of the Reservation have existing mercury impairments and fish consumption advisories.[23] The Band's water quality criterion for mercury is based on human health protection and accounts for fish consumption rates typical for its members. The Band recognizes the need to protect wildlife (1.3 ng/l, consistent with other Great Lakes basin governments), but its Human Health based standard is much more protective (0.194 ng/l).[24]

USGS data indicates that mercury levels in and upstream of the Reservation are significantly greater than the water quality criteria due to human-caused conditions due to atmospheric deposition of mercury. Sampling data show that all 67 surface water samples analyzed for total mercury exceeded 0.194 ng/l, the Band's water quality standard for mercury. The mean value of 4.2 ng/l is more than twenty times the water quality criteria. The lowest value (0.34 ng/l) was

[23] See Appendix 9, *Evaluations Supporting Application for Discharger-Specific Water Quality Standards Variance for Mercury: Bad River Band of Lake Superior Tribe of Chippewa Indians. Diaperville, Birch Hill and Bad River WWTPs* (May 20, 2025).
[24] *Id*., at 1.

found in the only lake sample in the dataset. The lowest river sample was 0.77 ng/l mercury, four times the water quality criteria.[25]

Mercury concentrations in the Bad River watershed are driven by atmospheric sources that are still increasing and show no signs of abating in the near term. While natural sources of mercury to the atmosphere exist, they are dwarfed by anthropogenic sources.[26] Atmospheric mercury deposition from worldwide emissions has led to significant mercury contamination of the Bad River Watershed. Streams and wetlands on the Reservation do not meet water quality criteria because of human-caused atmospheric mercury deposition.[27]

As Dr. Brian Branfireun testified during the Public Hearing, and supplements in **Appendix 10**,[28] there is clear evidence that the Bad River Watershed is a mercury-impaired ecosystem that efficiently produces methylmercury in its extensive wetlands and wetland-influenced landscapes.[29] Hydrological and biogeochemical changes to wetlands as a result of the Line 5 Reroute will increase the amount of methylmercury produced in the Bad River watershed, violating the Band's narrative water quality standards. Methylmercury is the only form of mercury that bioaccumulates and biomagnifies in aquatic biota and fish consumers, and comprises 80-100% of the mercury in an upper trophic level fish, and ultimately in humans and other fish consumers.[30]

The sensitivity of the Bad River watershed to mercury contamination is abundantly clear from the consideration of available mercury and methylmercury data, most of which was compiled in a USGS Open-File Report,[31] which documents six fish species from the Band's waters that exceed the consumption threshold for children and women of child-bearing age, and two (walleye and northern pike) that exceed the threshold for the general population.[32] These concerning levels of methylmercury in fish are not because the levels of inorganic mercury in surface waters or sediments are particularly elevated relative to other reported data in North America (although the median water total mercury concentration of 3.4 ng/L is more than double the Wisconsin criterion for both the protection of wildlife and humans, more than double the Band criterion for protection of wildlife, and more than 15 times the Band criterion for protection of human health), it is more

[25] *Id.*
[26] *Id*. at 7.
[27] *Id*. at 12.
[28] Memorandum to Naomi Tillison from Dr. Brian Branfireun (June 12, 2025).
[29] *Id*., at 2.
[30] *Id*., at 2.
[31] 2020-1095; Ver. 1.1, Dec. 2020.
[32] Open-File Report Figure 4.

directly related to the high efficiency that these watersheds convert inorganic mercury to methylmercury.[33]

There is a clear evidentiary basis to conclude that the Bad River Watershed ecosystem is sensitive to mercury contamination because of its wetland-dominated landscape and high mercury methylation potential.[34] There is also clear evidence that the Line 5 Reroute will change wetland hydrology and ecosystem structure in ways that will impact environmental conditions that promote the formation of methylmercury, including changes in soil structure, water flow, water table levels, and vegetation community composition,[35] all of which are discussed elsewhere in this letter.

The area of wetland impact of the Line 5 Reroute is not limited to the right of way/designated permit area, because it is largely crossing perpendicular to the hydrological flowpaths of extensive wetlands that regulate both receiving water quality and quantity. Enbridge is clearly aware that changes in soil compaction and soil moisture are certain to be caused by its project, and have defined a 'success' criterion of 20% down-gradient water table variation relative to up-gradient. This criterion does not appear to address potential up-gradient effects, but nonetheless permits down-gradient wetland environments to be substantially wetter, drier, or more variable than natural, unimpacted conditions; all of these changes impact mercury methylation in different ways. Changes in water table levels and fluctuation are known to amplify the methylmercury production and export.[36]

The acknowledged transient and permanent conversion of forested and shrub-scrub wetlands to emergent wetlands as a result of the Line 5 Reroute will also have a direct effect on mercury biogeochemistry as a result of shifts in plant community composition. Field research has demonstrated that the loss of shrubs and increase in sedge cover (more water tolerant vegetation) increased both total mercury and methylmercury concentrations in wetland pore waters as sedge roots provided more microbially available carbon to methylating bacteria, and "primed" methylation by regenerating sulfate by delivering oxygen to the root zone. "[S]ignificant stores of

[33] Appendix 10, at 3. Median total mercury concentration is 4.3 ng/L when incorporating more recently collected mercury data as shown in Appendix 9. This is more than three times the Wisconsin criterion for both the protection of wildlife and humans.
[34] *Id*., citing Munthe et al., 2007.
[35] *Id*., at 5.
[36] *Id*. at 5, citing Coleman-Wasik et al.'s (2015) work showing that water level draw down in a bog due to a summer drought resulted in the oxidation of sulfide back to sulfate, which, upon rewetting significantly stimulated the production of methylmercury.

Hg ... may be liberated from either impacts on water table regime, plant community changes, or a combination of both."[37]

Additional methylmercury that will be formed in impacted headwater wetlands will cumulatively contribute to the methylmercury load of an already mercury-impaired watershed. Dr. Branfireun's opinion and testimony here is consistent with his opinion and testimony before the Corps in the NorthMet Mine's 401(a)(2) hearing: methylmercury produced in headwater wetlands may be effectively transported 10s to 100s of river miles in the St. Louis River watershed under similar environmental and chemical circumstances. Given the significantly shorter travel distance between the headwater tributaries of the Bad River and the Reservation than in the St. Louis River context, it is without question that additional methylmercury produced as a result of the Line 5 Reroute will reach Reservation waters, and there are no conditions that could be imposed that would prevent that from happening, given the nature and location of the Line 5 Reroute.[38]

b. The Line 5 Reroute Will Cause Impacts to Groundwater That Violate the Band's Water Quality Impacts on the Reservation

The Line 5 Reroute will use various excavation methods during pipeline construction, including trenching, HDD, direct pipe advancement, and blasting. These methods will disturb underlying soil, bedrock, and hydrogeology to varying degrees and in distinct ways, with impacts ranging from short-lived local disturbance to permanent regional impacts to Reservation and treaty resources. Many of the construction impacts will create conditions that could intensify and amplify the natural resource damages that may result from leaks, spills, or pipeline decommissioning in the future.[39]

There is the potential in multiple locations for groundwater conduit creation or alteration (breaching confined aquifers in the lake plain areas, altering flow paths, creating new bedrock fractures in blasting areas, drying up wells/springs/wetlands, creating new springs or seeps and drowning wetlands). Any surface water quality impacts could also impact the groundwater aquifers. The creation or alteration of groundwater conduits would alter groundwater levels and surface water flows, which would negatively impact the designated uses of the Band's surface water resources, in violation of the Band's antidegradation policy.[40]

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[37] *Id.*, at 6, citing Haines et al. (2017).
[38] *Id.*, at 7, 9.
[39] *See* Appendix 11, *Comments On USEPA May Affect Determination In Accordance With CWA 401(A)(2) Related To Groundwater Impacts,* Bratton, Bleha and Grewe (June 11, 2025)
[40] *Id.*, at 10.

There is also the potential for contamination from construction and post-construction activities in recharge areas or groundwater contamination susceptibility areas to impact wells, surface water, and habitats where groundwater discharges. Bedrock mineralogy has not been characterized well along the proposed pipeline route.[41]

Water present at the land surface interacts with water present below the land surface by downward flow, also known as infiltration, recharge, or stream loss. Likewise, water can flow from aquifers beneath the ground surface onto the surface or into the bed of surface water bodies through seeps, springs, or base flow. Aquifers, surface water bodies, and ecosystems depend on these exchanges to support private drinking water wells, community drinking water wells, stream flows, and habitat functions, especially in wetlands fed by groundwater.

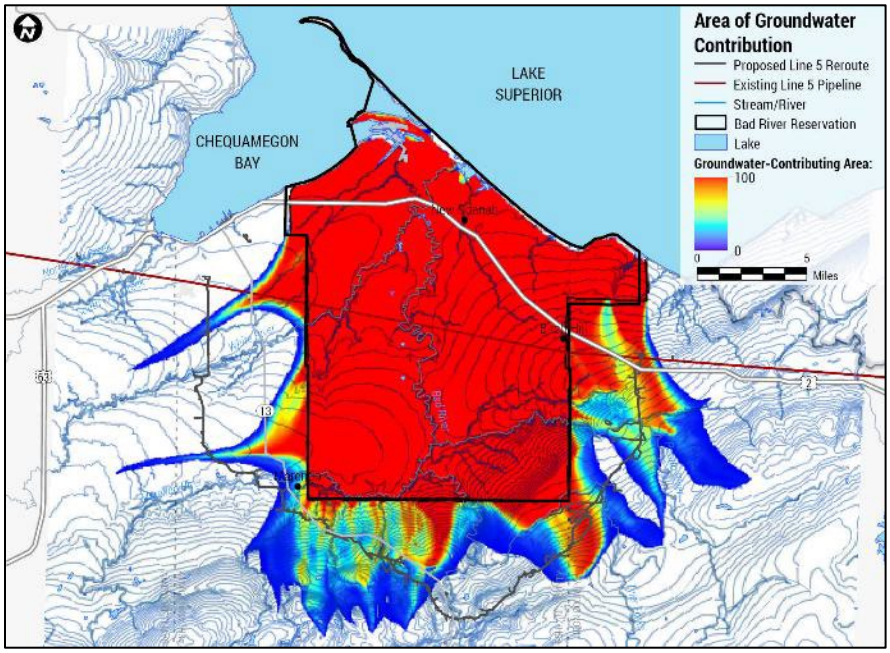

Figure 1: *Map showing areas based on numerical modeling results where groundwater flow contributes to aquifers on the Reservation, including off-Reservation areas impacted by L5R construction to the south, southeast, and east of the Reservation.*

Areas in and around the Reservation where the water table (depth of saturated sediment, porous rock, or rock fractures filled with water) is at or near the land surface are important to preserve and protect to support these functions. Construction can alter groundwater-surface water interaction flows by increasing or decreasing groundwater discharge or recharge, and contaminants introduced

[41] *Id.*, at 11.

during or after construction can subsequently impact drinking water wells, streams, lakes, wetlands, and overall ecosystem health. Many types of plants and aquatic organisms, such as freshwater mussels and turtles are dependent on consistent groundwater seepage during particular seasons or life stages, even though they live in streams, ponds, and wetlands.[42]

There is a potential for contamination from construction and post-construction activities in recharge areas or groundwater contamination susceptibility areas to impact wells, surface water, and habitats where groundwater discharges. Bedrock mineralogy has not been characterized well along the proposed pipeline route and it is possible that naturally occurring problematic substances (e.g., sulfides, arsenic, radon, selenium, uranium, lead, boron, cadmium, molybdenum, phosphorus, vanadium, and other metals) will be mobilized due to flow alterations and blasting.[43]

The presence of asbestos-like minerals associated with iron ores in the Lake Superior region known to be linked to mesothelioma, mercury, arsenic, and sulfide-containing rock has been identified in the Penokee Range near the proposed project area. Additionally, these asbestos-like minerals are known to be present in the Tyler Forks River basin.

Groundwater is a particularly important aspect of the ecoregion and wetland characteristics in and around the Reservation. The Lake Superior Clay Plain is a flat region underlain by clay deposits of variable thickness that create confined or semi-confined aquifers. The river valleys that pass through the plain are deeply incised with channels that meander between steep walls. Wetlands occur at various elevations as perched depressions in higher elevation areas or on floodplains that interact with streams under high water conditions or that are fed by groundwater during lower river stages. The Clay Plain ecoregion is dissected by incised streams that form steep-sided ravines that have groundwater-fed wetlands surrounding the stream channels.

[42] *Id*., at 8.
[43] Id., at 11.

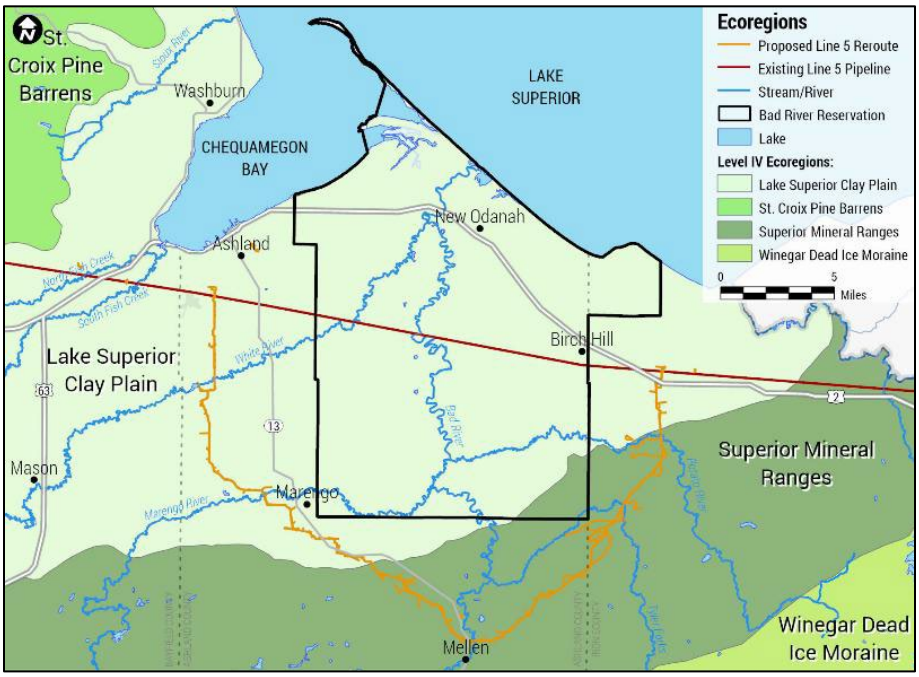

Figure 2: *Ecoregions of the Reservation and surrounding areas that would be impacted by the Line 5 Reroute.*

The Superior Mineral Ranges region that intersects the southeast corner of the Reservation and underlies about half of the Line 5 Reroute route south and southeast of the Reservation is characterized by steeper topography with glacial till overlying relatively shallow crystalline bedrock. Wetlands in this region occur in shallow bedrock depressions and in hummocky till deposits. Wetlands in both ecoregions are fragile and subject to irreversible alteration by construction activities that modify their hydrogeologic settings by changing their interaction with groundwater which can result in either excess groundwater discharge, flooding and drowning the plants that grow in them, or excess infiltration into sand and gravel, sandstone, or fractured rock aquifers that would result in permanent drying out of the wetlands.[44]

As discussed elsewhere in this letter, the use of HDD poses significant risks of water quality impacts caused by an "inadvertent release" or "inadvertent return" of the drilling fluid, or "drilling mud," used for HDD operations. There is a potential for loss of drilling fluids at 13 HDD/direct pipe crossings to surface water or groundwater, most of which are river crossings, but some also include utility, roadway, and railway crossings; nearby wetlands, streams, and aquifers adjacent to and within the HDD/direct pipe space are also at risk.

[44] *Id.*, at 8-9.

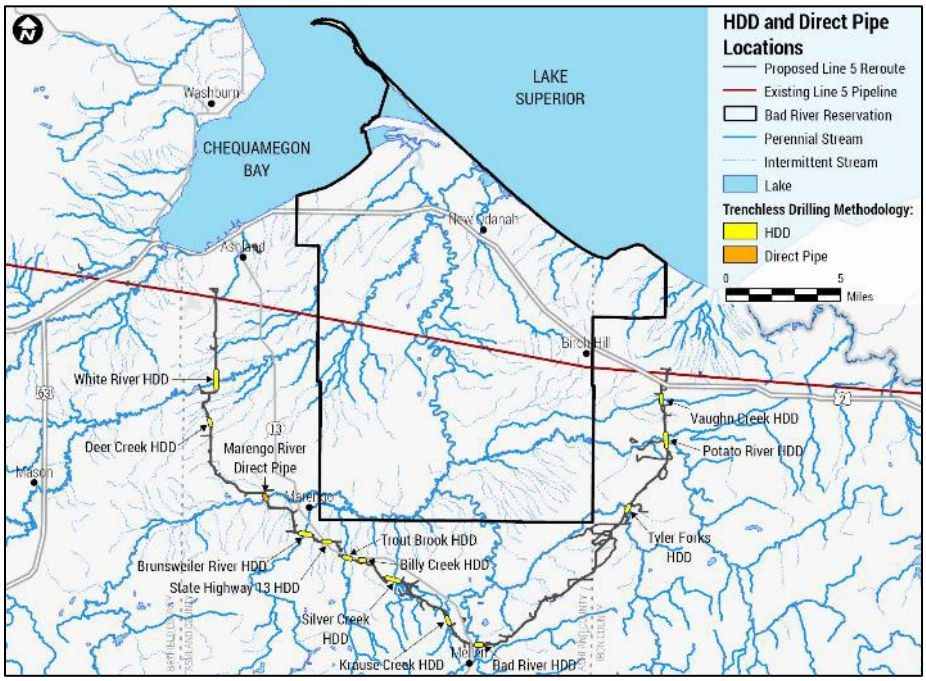

Figure 3: *Locations of one direct pipe and 12 HDD stream crossings along the Line 5 Reroute route.*

Higher risks of fluid loss are associated with longer and deeper HDD runs at the White River (milepost 4), Brunsweiler River (milepost 14), Silver Creek (milepost 19), and Potato River (milepost 38) and nearby tributaries (Vaughn Creek, Winks Cre3ek).[45]

Modifying wetland hydrology through trenching and blasting also creates a significant risk of the mobilization of mercury and methylmercury from wetland soils and peat due to changes in saturation and redox conditions. Multiple Lake Superior watersheds have mercury impairments linked to upland wetland sources, including the Black River and St. Louis River watersheds in Minnesota and Wisconsin, and headwater sources of mercury are essential contributors to downstream concentrations.[46]

[45] *Id*., at 9.
[46] *Id*. at 10.

c. Changes to Land Use Will Cause Changes to Hydrology and Increase Erosion

> Erosion and sedimentation are some of the most significant and visible impacts from pipeline construction. While some amount of sedimentation occurs naturally, excess sediment in streams—which is considered a pollutant—will be caused by pipeline construction activities and by erosion of exposed soils after active construction has ended. Construction activities, including pipeline and road construction, cause erosion and sedimentation—even when best management practices are used. These activities include stream crossings, wetland crossings, and upland pipeline and access road construction. In some cases, pipeline and access road crossings pollute pristine waters. In others, it would exacerbate already-existing impairments tied to sediment.[47]

The Line 5 Reroute will have effects on hydrology that include near-term impacts during and immediately following construction, as well as long-term impacts during the restoration period and from right-of-way (ROW) maintenance and other pipeline activities.

The current vegetation condition and ground surface topography along the proposed pipeline corridor includes dense herbaceous, shrubby, and forested vegetation in wetlands and along waterbodies; deciduous and mixed evergreen-deciduous forest with dense herbaceous understory vegetation in upland areas; and thick and continuous litter and duff in the forested areas. Some residential and agricultural land is also crossed by the Line 5 Reroute. Vegetation will be cleared and trees will be grubbed with heavy machinery in the ~95 to 330-foot-wide temporary workspace corridor during pipeline construction.[48] After the pipeline is installed, the ROW will be brush hogged as part of routine pipeline corridor maintenance activities in the 30 to 50-foot permanent corridor, preventing the growth of trees and limiting the growth of shrubs. Changes to land surface hydrology processes from the initial pipeline construction work and ongoing maintenance will cause increased runoff and will affect the hydrology of the water bodies that flow into the Reservation.[49]

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[47] Betcher et al., 2019.

[48] This does not include those areas that are even larger where vegetation will need to be cleared associated with the "false-right-of-way" workspaces associated with horizontal directional drilling (HDD) and direct drills (DD).

[49] Wright Water Engineers, Inc. (WWE), *Memorandum re: Comments on Impacts of Line 5 Wisconsin Relocation Project on Clean Water Act Related to 401(a)(2) Water Quality Certification* (June 6, 2025), at 2. Attached as Appendix 12.

As WWE concluded in its technical Memorandum, and as Ian Paton testified during the Hearing:

> The removal of trees and understory vegetation in the proposed L5R construction corridor will have a measurable effect on rainfall-runoff hydrology by reducing the amount of rainfall intercepted by the vegetation canopy. . .
>
> The thick litter and duff layers also play important roles in reducing runoff and soil erosion by buffering the soils from raindrops that are not otherwise intercepted by canopy foliage (termed "direct throughfall") and by storing water as surface depression storage. In addition, much of the water that eventually infiltrates into the soil will be consumed by transpiring vegetation and lost via evaporation through the stomata of plant leaves. The deep-penetrating roots of healthy trees also act as preferential flow paths for infiltrating stemflow into the soil around trees. While much of the upland and riparian vegetation is deciduous and therefore does not have canopy vegetation during winter, most of the precipitation in the Project area, particularly in the form of rainfall, falls from April through October when deciduous vegetation is leafed out.
>
> Removal of vegetation during the initial construction and periodic maintenance periods will reduce the sources of rainfall abstraction described above. Further, removing and mowing vegetation will also make the surface roughness texture in the pipeline corridor smoother relative to an unmowed condition, causing surface runoff generated during storms to 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.
>
> WWE observed erosional features (i.e., rills, gullies) on exposed banks in the proposed L5R Project area, confirming native soils are subject to water-driven erosion along the L5R corridor.[50]

Basic hydrologic principles indicate that the biophysical changes to the right of way work area will increase surface runoff and erosion in and downstream of the pipeline corridor, particularly in areas with steeper slopes.[51]

[50] *Id*., at 5-6 [internal citations and references omitted].
[51] *Id*., at 8.

The use of heavy machinery can reduce soil infiltration rates by compacting surface soils, further increasing runoff and erosion. The installation of wooden mats along the pipeline corridor for construction vehicle access will also contribute to soil compaction, and the numerous small depressions in the topography that create storage areas for runoff will be lost when the pipeline corridor is graded following pipeline installation.[52]

The Line 5 Reroute will cause increased sedimentation as a result of construction activities, post-construction activities, and ongoing maintenance of the pipeline corridor. The immediate threat during construction is the release of sediments during precipitation or snowmelt following the clearing of the construction corridor of all vegetation. These downstream impacts on tribal wetlands represent potential violations of the Band's Water Quality Standards, which provides that "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."[53]

Downstream wetlands that receive excess sediments will alter in soil structure, topography, and nutrient load, which will then create opportunities for non-local beings (invasive species) to colonize.[54] Heavy rain can also cause pulse sediment events, which can flatten vegetation and scour areas, degrading tribal wetlands.[55] Sedimentation concerns will continue once construction of the project abates.[56] In some areas, the ground will be slow to stabilize so sedimentation will occur until vegetation is established.[57]

Some sediment will get captured by best management practices (BMPs) installed adjacent to the construction corridor, but not all. The remaining uncaptured sediment will move off-site either directly into waterways and wetlands or into uplands from which they will be transported into nearby water resources.

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[52] *Id*., at 7.
[53] Bad River Band of the Lake Superior Tribe of Chippewa Indians Water Quality Standards, 6(ii)(c) (July 6, 2011), attached as Appendix 3.
[54] Appendix 13, Alice Thompson, *Report on Bad River Tribe's CWA 401(a)(2) "will affect" determination of the impact of the Enbridge Line 5 Re-Route Project on Bad River Reservation Tribal Waters* 21 (June 11, 2025).
[55] *Id.*
[56] *Id*., at 9.
[57] *Id.*

On a 41.1-mile-long project it is impossible to keep all sediment within the permitted construction site boundaries. As described elsewhere in this letter, smaller projects with similar activities as the proposed project within the Reservation have resulted in increased sediments and turbidity in downstream waters despite permit conditions and the BMPs installed. Research into land disturbance and the implementation of BMPs to control runoff off of construction sites supports the Band's determination that sediment will leave the construction site, especially on a linear project of this scope and magnitude.[58]

The release of sediment into wetlands and waters that carry it to the Reservation violate a number of the Band's water quality standards, including:

- **Relevant Narrative Criteria Exceeded**
    - 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;
        - E.6.i.d. Cause injury to, are toxic to, or produce adverse physiological responses in humans, animals, or plants;
        - E.6.i.f. Produce nutrients or other substances that stimulate algal growth producing objectionable algal densities, nuisance aquatic 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.
    - 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

[58] See Appendix 14, *Water Quality Effects from Sediment Pollution from the Proposed Enbridge Line 5 Reroute*.

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.

- 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.
- 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.
- E.6.ii.e. Pollutants or human-induced changes to waters, the sediments of waters, or area hydrology that result 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.
- 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

- **Relevant Numeric Criteria Exceeded**
  - 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 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.
  - 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.

- **Designated Uses[59] (DUs) Effected[60]**
    - 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.
    - Wild Rice (W1). Supports or has the potential to support wild rice habitat for sustainable growth and safe consumption.
    - Aquatic Life and Fish (A). Supports conditions for a balanced aquatic community.
    - 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.
    - 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.
    - 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.

As demonstrated during the Public Hearing and detailed in **Appendix 14**, the implementation of the BMPs included in the Wisconsin certification will not prevent the release of sediment from the construction sites along the Line 5 Reroute. Research into BMPs shows that even when best management practices are required, they fail because they were either not installed correctly to begin with or they were not maintained correctly.

Even when installed and maintained correctly, the regulations requiring BMPs are often themselves are inadequate. The Wisconsin Department of Natural Resources' (WDNR's) 2024 Final Environmental Impact Statement (WDNR FEIS) reported that Enbridge proposes to install two sediment basins, and 18 sediment traps in areas with concentrated land disturbance such as temporary staging areas. These sediment basins are designed to capture only 80% of the sediment

[59] Designated Uses from Section F of Bad River Band of the Lake Superior Tribe of Chippewa Indians Water Quality Standards, 2011.
[60] The Bad River Band's "Will Affect" Letter dated February 11, 2025 and the main comment document to which this appendix is attached go into additional detail regarding the affects to each Designated Use (DU) summarized here. Additional information supporting our assertations regarding affects to these DUs can be found below.

runoff entering them, which therefore allows 20% of the sediment leaving the site to enter nearby water resources even if the sediment traps and basins are working effectively to their design.

Moreover, because Wisconsin law[61] only requires "BMPs that, by design, discharge no more than 5 tons per acre per year, or to the maximum extent practicable, of the sediment load carried in runoff from initial grading to final stabilization" and even larger amounts of sediment discharge to be acceptable if the permit holder can produce a "site-specific explanation of why the sediment performance standard cannot be met and how the sediment load will be reduced to the maximum extent practicable" the permit conditions are neither written nor enforced with the intent of zero discharge.[62]

d. The Use of Construction Matting Will Cause Violations of the Band's Water Quality Standards

Timber construction mats are used when work occurs on wetland soils and can weigh up to 2,800 pounds.[63] These mats can become a significant source of sediment release during precipitation events.[64] This concern is confirmed by the case study (described below) of the Line 5 Check Valve site. Additionally, heavy timber mats compress fragile muck and thin organic soils. The microtopography is flattened under the mats or by heavy machinery.

One example of the use of timber mats is for the HDD that will occur under Trout Brook and Billy Creek. The soft, mucky soil in this area has the consistency of pudding in some places.[65] These heavy mats, not to mention the vehicles, equipment, and pipes that may be placed on these mats, will damage the slender streams and soft, mucky soils in this very water-rich area.[66]

The EPA, in its evaluation and recommendations, relies in part on conditions in Wisconsin's Water Quality Certification to minimize any increases in discharges related to construction matting.[67]

[61] NR 151.11 Subsection 6m(b)(2).
[62] NR 151.11 does not require that sediment be wholly prevented from moving off the project site—just that it is minimized to the maximum extent practicable.
[63] Appendix 13, at 42.
[64] *Id*. at 9.
[65] *Id.* at 42.
[66] *Id*.
[67] U.S. Env't Prot. Agency, *Clean Water Act Section 401(a)(2) Evaluation and Recommendations with respect to the Bad River Band of Lake Superior Chippewa's Objection to the Proposed Enbridge Energy Wisconsin Line 5 Relocation Project* 16-17 (May 2025).

However, it is unlikely that these conditions will result in the recovery of the wetlands due to the loss of microtopography, loss of soils, and hydrologic changes to surface and groundwater flow.[68]

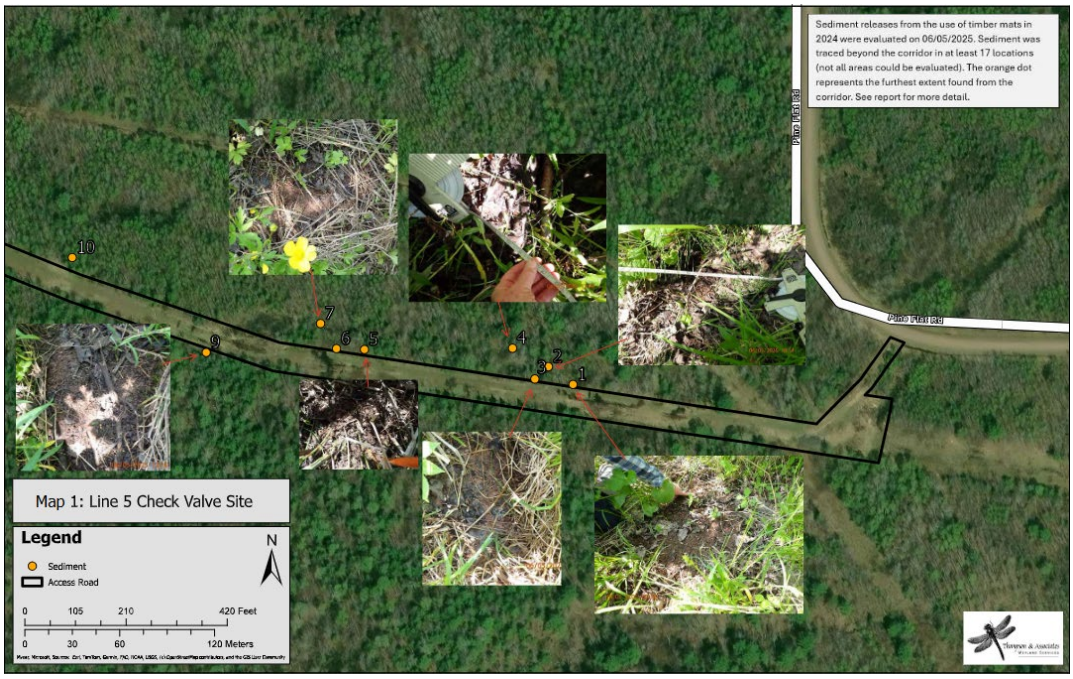
Figure 1: *Soils and sediment displaced by construction matting access road being discharging into a nearby wetland at the Enbridge Check Valve Project on the Bad River Reservation (summer 2024)*

As the Band during the Hearing, and as documented in the technical memorandum *Water Quality Effects from Sediment Pollution from the Proposed Enbridge Line 5 Reroute*, attached as Appendix 14, the placement of construction matting associated with workspaces and access roads has significant impacts on hydrology.

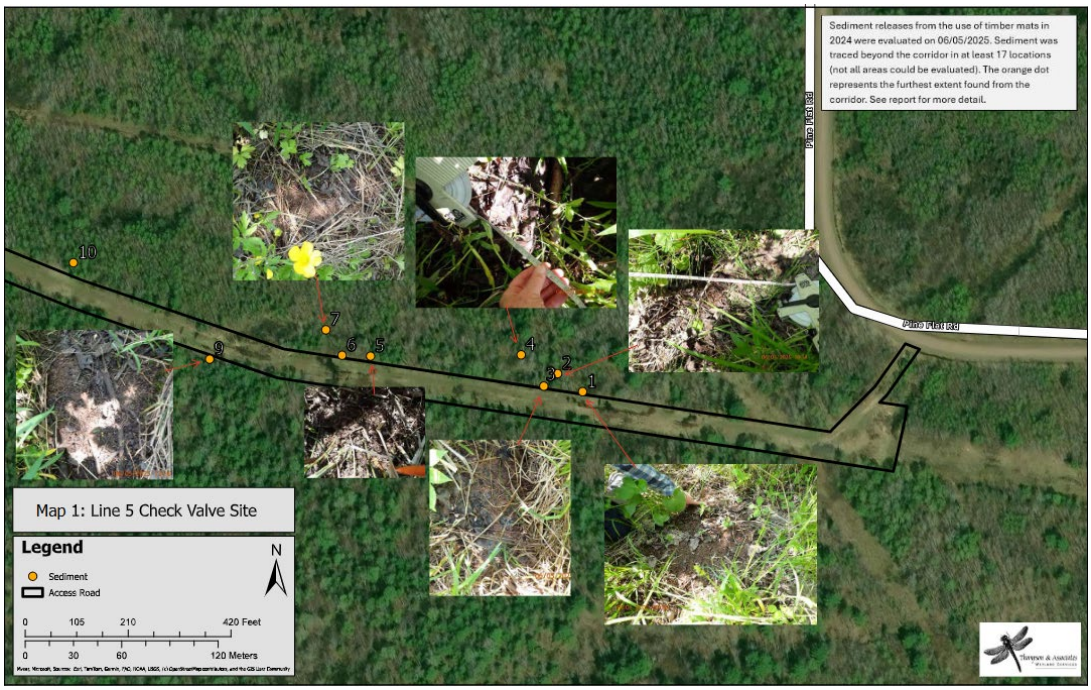
Enbridge's Environmental Construction Plan, Attachment E – Stormwater Pollution Prevention Plan and Erosion and Sediment Control Plan, Section 2.4 notes that in saturated areas more than one layer of construction matting may be necessary. It often happens that matting sinks so far into the earth that it may remain undetected, which Enbridge acknowledges by noting that personnel will "probe the soil after mats have been removed to verify no additional mats remain." As matting sinks it displaces soils, pushing them up through the cracks of the matting and alongside the matting, and more soil disturbance leads to more sedimentation.[69]

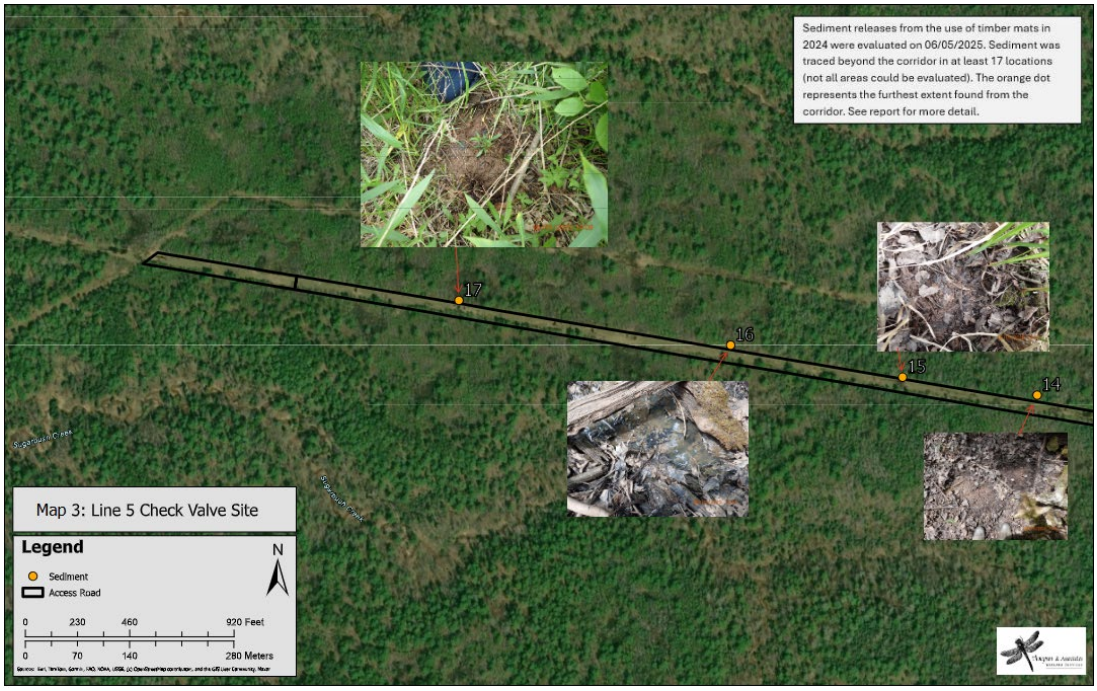
[68] Appendix 13, at 3.
[69] Appendix 13, at 31.

Line 5 Check Valve case study. MNRD and Thompson recently completed a field investigation associated with the Line 5 Check Valve project site. The goal of this field investigation was to determine the extent of sediment movement extending beyond the construction work zone.[70] In May 2024, construction mats were installed on the site. These mats were removed by early August 2024. The field investigation found seventeen clear areas of sedimentation outside of the project area, one as far as fifty feet away.[71]



[70] *See id*. at Figure 35.
[71] *Id*. at 47.


Sediment releases from the use of timber mats in 2024 were evaluated on 06/05/2025. Sediment was traced beyond the corridor in at least 17 locations (not all areas could be evaluated). The orange dot represents the furthest extent found from the corridor. See report for more detail.
Pine Flat Rd
10
9
7
6
5
4
3
2
1
Map 1: Line 5 Check Valve Site
Legend
Sediment
Access Road
N
0 105 210 420 Feet
0 30 60 120 Meters


Sediment releases from the use of timber mats in 2024 were evaluated on 06/05/2025. Sediment was traced beyond the corridor in at least 17 locations (not all areas could be evaluated). The orange dot represents the furthest extent found from the corridor. See report for more detail.
17
16
15
14
Map 3: Line 5 Check Valve Site
Legend
Sediment
Access Road
N
0 230 460 920 Feet
0 70 140 280 Meters

This sedimentation resulted from the use of construction mats and project traffic alone, and no other construction activity. It should be noted that this was a relatively level area of the Line 5 pipeline corridor and only involved the placement of construction mats. The Line 5 Reroute project is not uniformly flat and does not only use construction mats, but also blasting, trenching, and deforestation, activities that will magnify this effect.[72] This case study demonstrates that even in more ideal conditions, construction-related disturbances can cause sediment to travel off the project footprint and into downstream waters.

Off-site sediment transport in areas that are not matted also will occur. Large equipment moving back and forth within the workspaces and along the access roads will lead to soil compaction, degraded plant communities, rutting, and soil exposure. Erosion from upland areas releases pollutants into adjacent watercourses and wetlands. These watercourses and wetlands are connected to the Reservations waters downstream. These indirect impacts to water resources and water quality are as much of a concern as the direct impacts to water resources and water quality that results from the suspension of sediment that will move off the Project site.[73]

e. The Line 5 Reroute Construction Will Cause Increased Flow and Flooding

Construction associated with the Line 5 Reroute will require the removal of upland and wetland forest cover. This will occur both in the construction footprint for the project and in the maintained corridor, which will be permanently cleared. This loss of forest will decrease the time that precipitation and snowmelt are held on the landscape, which will increase the likelihood of flood events.[74] This increase in runoff and flooding will violate the Band's Water Quality Standards, "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"[75] as well as providing that 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.[76]

The timeframe for reforestation of the project area will be measured in decades, not years. Wetlands that are restored will not have the same high-quality floral communities that are present now. As a result, increased runoff and flooding is likely to persist for quite some time.

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[72] *Id*. at 52.
[73] *Id*., at 32.
[74] *Id.* at 21.
[75] Band's WQS, 6(ii)(c), Appendix 3.
[76] *Id*. at 6(ii)(d).

The issue here is not just the forest cover, but also the microtopography, which is the topographic variability of individual features, such as tree tips and nurse logs. This microtopography is critical in holding back waters and slowing its flow into streams, as well as trapping sediments locally.[77] The loss of this microtopography over the entire project area causes a cumulative effect.[78] Forests in wetlands rely on this microtopography to regenerate, as it provides safe places for saplings to grow.

WWE modeled changes in peak flows resulting from the Line 5 Reroute on major creeks and rivers that flow into the Reservation.[79] Peak discharge magnitudes and volumes typically increase when forested land cover is converted to less dense vegetation types due to the reduction in precipitation interception. Runoff timing can also change. Soil compaction associated with the type of earthwork required to construct and maintain the Line 5 Reroute is also likely to enhance, and in this case compound, runoff changes due to reductions in depression storage, soil surface roughness, and soil infiltration rates.[80]

The Bad River and Potato River are both designated Tier 3 Outstanding Tribal Resource Waters (OTRWs) beginning at the points where they cross into the Reservation. The water quality standard for the OTRW designation prohibits "new or increased discharges or alterations of the background conditions are allowed to Outstanding Tribal Resource Waters" except for certain short-term circumstances. WWE's analysis demonstrates that the Line 5 Reroute caused changes to hydrology will likely violate this standard.

f. Horizontal Directional Drilling Inadvertent Releases Will Affect Sediment Transport and Water Quality on the Reservation

The Line 5 Reroute corridor crosses 136 identified watercourses.[81] At eleven of those water crossings, Horizontal Directional Drilling (HDD) is the planned method for boring underneath the watercourse to install the pipeline. A risk associated with the use of HDD is an inadvertent release or inadvertent return (IR) of the drilling fluid, or drilling mud, used for HDD operations. An IR occurs when drilling fluid is accidentally leaked to the surface during the drilling process. This is also referred to as a frac-out in the drilling industry.

[77] Appendix 13, at 22.
[78] *Id*.
[79] Appendix 12, at 11-21.
[80] *Id*., at 20.
[81] WDNR, 2024a.

When an IR occurs, the drilling fluid moves through cracks in the soil and returns to the surface. A drilling fluid mix of approximately 3.0% to 4.2% bentonite clay is suitable for normal drilling conditions, and 4.2% to 7.2% is suitable for poorly consolidated sand or gravel. In cases where an HDD IR occurs, the drilling fluid can have an adverse impact on sensitive areas, such as waterbodies or wetlands, resulting from the high concentration of suspended solids in the released drilling fluid.[82]

Enbridge's work in Minnesota demonstrates the frequency of HDD IRs in its pipeline construction. During the construction of the replacement for Line 3, HDD IRs occurred 28 times over the course of less than two months (from June 8, 2021 to August 5, 2021), as reported by Enbridge. During that period, on several days, IRs occurred at more than one location on the same day. The Minnesota Pollution Control Agency (MPCA) reported that of the 28 incidents, one was in a river, 13 were in wetlands, and 14 were in upland areas. The 28 IRs occurred at 12 out of 19 (63%) of the HDD-installed water crossings.[83] Enbridge states on their website regarding the HDD construction process, "Inadvertent returns are not unusual or unexpected".[84]

Enbridge modelled the sediment transport associated with an HDD IR and concluded that "[b]ecause the Proposed Route crosses the various watercourses in the Project Area at distances between 2.1 km and 23.9 km (1.3 and 14.9 miles) upstream of the Reservation boundary, TSS concentrations were predicted to be below the more conservative calculated threshold of 19 mg/L by the time any suspended sediments from trenching installations (or an inadvertent return on the Bad River) reached the Reservation boundary."

Enbridge's modelling of impacts from HDD IRs, which the EPA relied on in its Determination, is flawed in four fundamental ways.

First, rather than modeling multiple watercourses, the model evaluated a single watercourse, the Bad River. Other watercourses along the Line 5 Reroute that are proposed to be crossed using HDD have lower average flow rates, and corresponding reduced dilution at all but one of the other watercourses proposed to have an HDD crossing. The omission of other watercourses with lower average flow rates than the Bad River falsely overpredicts dilution and lowered concentrations of suspended sediment downstream. Based on WWE's evaluation, with the exception of the White River, all the other watercourses proposed to have an HDD crossing will have a higher initial concentration of suspended solids following a given HDD IR than will the Bad River. This has a

[82] Appendix 12, at 23.
[83] Watch the Line MN, 2021.
[84] Appendix 12., at 24.

direct bearing on the concentration of suspended solids in the receiving streams that may cause an exceedance of the Band's water quality standards if an HDD IR occurs.[85]

Second, the model's analysis of only the Bad River ignored all of the other HDD crossings which are closer to the Reservation boundary than the Bad River crossing. The other HDD crossing locations will generally have shorter travel times to the Reservation boundary than from the Bad River HDD location. The shorter distances and travel times for the other HDD locations allow less time for suspended sediment from an HDD IR to settle out in the water column before reaching the Reservation boundary. IRs at those other locations, which were not evaluated by Enbridge's consultant, thereby pose a higher risk of violating the Band's water quality standards.[86]

Third, the model assesses compliance with the Band's water quality standards based on the TSS/turbidity relationship for data collected from the Bad River. The relationship between TSS and turbidity has been shown to vary substantially between different watercourses. This is noted because the TSS/turbidity ratio can be expected to have a broad range and the 19 mg/L TSS threshold identified in Enbridge's model as corresponding to a 5 NTU increase in the Bad River, cannot be validly applied to other watercourses.[87] What's more, the model used data from over 30 years ago when more recent, publicly available data for the Bad River exist.

Finally, the model assesses compliance with the Band's water quality standards for the Bad River based on a model-estimated increase in turbidity of 5 NTU. That assessment approach is inconsistent with the Band's water quality standards.[88]

Enbridge's modelling looked only at the Bad River. Multiple other watercourses exist that are proposed to have HDD crossings and, in the event of an HDD IR, have characteristics that make them more susceptible to causing an exceedance of the Band's water quality standards compared with an HDD IR occurring into the Bad River.[89]

[85] *Id*., at 27.
[86] *Id*., at 27-28.
[87] *Id*., at 28-29.
[88] *Id*., at 29-30.
[89] *Id*., at 29-43, 55.

g. Grading, Trenching, Soil Stockpiling, Dewatering, and Other Workspace Disturbance Will Violate the Band's Water Quality Standards

In addition to the sedimentation coming off the site from construction matting and inadvertent releases, sediments will leave other parts of the construction corridor due to disturbances related to grading in uplands where topsoil will be stripped and stockpiled, where slopes will be contoured into more gradual slopes to allow for the trenching in of the pipe at appropriate angles/bends, dewatering structures being placed outside of the approved workspace, and other construction activities associated with the construction like soil tracking from vehicles along the construction matting.

While Enbridge and its contractors assert that the implementation of BMPs will retain sediment and runoff adjacent to the trenched area and work zone and post-restoration the project would not cause significant adverse impacts, these conclusory statements are not supported by the research provided by the Band,[90] as BMPs are shown to be ineffective in fully capturing suspended sediment and turbidity from stormwater coming off the construction sites.

Moreover, the ECP does not show BMPs fully encasing the parameters of the workspace in upland areas where topsoil will be stripped and stockpiled to allow equipment to operate on the subsoil. This removal and stockpiling of topsoil makes these soils unstable and more prone to erosion and the lack of BMPs will allow stormwater to move off the project site and into nearby water resources outside of the workspace (as only the wetlands and watercourse within the workspace have been partially protected by BMPs).[91]

In addition to BMPs not encompassing workspace areas where soils will be destabilized, there are also activities proposed for outside the workspace. Dewatering structures identified in the ECP all fall outside of the proposed workspace. While dewatering structures should incorporate some BMPs such as straw bale dewatering structures, the disturbances caused by the construction of the dewatering structure (*i.e.*, tree removal, equipment disturbance to soils) will not be isolated by

[90] Appendix 14.

[91] This is clearly seen in Sheets B19 and B20 of the construction Erosion and Sediment Control Plan, where the majority of Access Road 014 runs through farm fields draining towards two different tributaries to Deer Creek. And, on Sheet B30 where a portion of the centerline in the area of Milepost 11.6 to Milepost 11.7 is not isolated by BMPs but upslope of a tributary to Marengo River (and passes through a farm field that was already exhibiting erosion problems near MP 11.4 adjacent to Marengo River as witnessed by MNRD, Enbridge, Re Cliff, and Corps staff during a November 18, 2024 field visit.

BMPs. Additional evidence-based research that refutes claims regarding the efficacy of BMPs can be found in Appendix 14 and in the Band's testimony at the Public Hearing.

h. The Spread of Invasive Species as a Result of the Proposed Project Will Violate the Band's Water Quality Standards

The proposed project will increase the amounts of biological materials, including the seeds and fragments of invasive or non-local beings, which are discharged into waterways and wetlands, which will travel downstream, polluting Reservation waters, and establishing new populations on the Reservation that will alter existing habitats and uses.

The proposed project will disturb soil, remove native species and shrub cover, and increase human activities in the area. This will result in the spread of invasive species that already exist within the proposed project site and introduce new species when equipment, materials, and personnel are brought in from off site. The proposed project will introduce and expand these species and will result in the discharge of seeds and vegetative materials into waters that are hydrologically connected to the Reservation. The invasive species seeds and other reproductive parts of the plants are biological materials and pollutants as defined at 40. C.F.R.§122.2

The discharged biological pollutants will travel downstream and pollute Reservation waters, violating the Band's water quality standards.[92] As these pollutants travel onto the Reservation waters and establish new populations they will further degrade wetland functions and water quality by outcompeting native species that support the current wetland functions and water quality conditions, in violation of the Band's water quality standards.[93]

The loss of native vegetation to invasive species will result in increased stream sedimentation that will also violate the Band's water quality standards.[94] The spread of species with dense root systems, such as leafy spurge (*Euphorbia esula*) and purple loosestrife (*Lythrum salicaria*), will alter the flow of water through a channel, violating provision E.6.ii.d., which can also result in changes in water temperature, violating provision E.6.ii.g. The proposed project's discharge of these biological pollutants will also violate the Band's Antidegradation Policy.

Documented invasive species populations spotted knapweed (*Centaurea maculosa/ C. stoebe*), garlic mustard (*Alliaria petiolata*), purple loosestrife, helleborine orchid (*Epipactis helleborine*), leafy spurge, common buckthorn (*Rhamnus cathartica*), non-native cattail (*Typha*), wild parsnip

[92] Bad River WQS, E.6.i.e., E.6.i.g., and E.6.ii.a., Appendix 3.
[93] *Id.*, at E.6.ii.c and E.6.ii.e.
[94] *Id.*, at E.6.ii.e.

(*Pastinaca sativa*), and reed canary grass (*Phalaris arundinacea*) in or downstream of the Line 5 Reroute are described in **Appendix 15**.[95]

In their reports, Enbridge contractors acknowledge the hydrologic connectivity of invasive species populations between the Reservation and the proposed project areas; however, they conclude that by following the Invasive and Noxious Species Management Plan they will minimize and likely decrease the spread of invasive species through waterways to the Reservation compared to current conditions. The extensive efforts to remove the garlic mustard population in Mellen and its continued spread downstream described in *Water Quality Effects from Biological Material Pollution from the Proposed Enbridge Line 5 Reroute*[96] demonstrate that the treatment of invasive species population does not guarantee that its spread will be stopped. Additionally, the specific treatment decisions for invasive species populations along the proposed reroute will not be made until the proposed work has begun, so the conclusion that these measures will lessen the current spread of invasive species cannot be made. Discussion of how the proposed reroute will contribute to the spread of invasive species can be found in Appendix 15.

Enbridge contractors also assert that pre-treatment, when feasible, of noxious species, stockpiling soils potentially containing invasive species, and the installation of BMPs will prevent surface water flows from carrying invasive species downstream. Any type of soil disturbance, including stockpiling, has the potential to expose and free the seeds of invasive species that exist within the seedbank. Additionally, the use of tackifiers and mulch on stockpiled soils has not been proven to completely prevent erosion or eliminate the viability of seeds. The effectiveness of this method cannot be determined given the lack of details about when this method is proposed to be used in areas with invasive species, what tackifier would be used, and the amount of soil that will be stockpiled.

BMPs will not completely remove total suspended solids from surface water runoff, so it is inaccurate to claim that BMPs will fully prevent surface water flows from carrying invasive species seeds from the proposed workspace to the surrounding areas, including nearby waterways. Additionally, there are some areas of the proposed reroute workspace where soil will be stockpiled near invasive species populations and there are no BMPs in place. For example, on the western

[95] *Water Quality Effects from Biological Material Pollution from the Proposed Enbridge Line 5 Reroute*.
[96] Appendix 15.

side of the proposed workspace along Long Road, soil will be stockpiled without BMPs in place.[97] This is also the location of a population of Canadian thistle (*Cirsium arvense*).

Finally, in locations where equipment and personnel will travel outside of the proposed workspace to access dewatering structures, there will be no BMPs in place to prevent invasive species materials present on equipment and personnel from relocating into areas outside of the proposed workspace.

The conditions proposed by WDNR to prevent the discharge of invasive species from the Line 5 Reroute site will not stop the spread of these species into Reservation waters.

For example, Condition 85 refers to the ECP for pre-treatment guidance, which states that pre-treatment will only occur "when possible" allowing the applicant to decide when pre-treatment isn't possible. Without required pre-treatment, there is a greater chance of spreading invasive species because construction activities could begin in an area with an invasive population that has not been controlled in any way. Then the seeds, which can be as small as grains of sand, will attach to equipment and personnel and be carried to other areas of the project.

Conditions 89, 92, and 93 relate to cleaning equipment and refer to the ECP for decontamination protocols. Those protocols require only that equipment be cleaned "to the extent feasible" and that plant materials be removed to the "extent practicable." These are unenforceable conditions because the feasibility or practicability of cleaning equipment is determined by the applicant.

In its recommendation, the EPA relies on WDNR conditions regarding the reuse of construction matting in areas with invasive species populations to protect the Band's water quality standards. EPA claimed that conditions 75 and 85 through 107 require the applicant "to use clean construction mats, ensuring the use of construction matting when vehicles travel through known invasive populations (and not reusing those mats)."[98] The plain language of the conditions conflict with the EPA's conclusion.[99]

Even with strict conditions, it would be impossible to guarantee the complete removal of seeds from construction matting that will lay directly on top of existing seedbanks and, if pre-treatment if not determined feasible, across invasive species plants themselves. The seeds of purple loosestrife, helleborine orchid, and non-native cattail are less than 1 millimeter in diameter, leafy spurge seeds are approximately 2 millimeters in diameter, spotted knapweed and garlic mustard

[97] Sheet B33, Construction Erosion and Sediment Control Plan (October 2024).
[98] EPA Evaluation, *supra* note 66, at 18.
[99] Appendix 15, at 9-10 [Non-local beings].

seeds are approximately 3mm in diameter, and wild parsnip and buckthorn seeds are approximately 6 millimeters in diameter. The complete removal of seeds these sizes from construction matting and equipment is not possible.

The Denomie Creek Tributary riprap project demonstrates this point.[100] This was a project on the Reservation. At the Denomie Creek Tributary riprap project site on Reservation. Although thorough equipment inspections were conducted and strict conditions were set, white sweet clover *(Melilotus alba)*, Canada thistle, and birdsfoot trefoil *(Lotus corniculatus)* were still introduced and spread to this site through construction activities. Compared to the Line 5 Reroute, the Denomie Creek Tributary riprap site is a very small project, requiring approximately 59 trucks, 97 work days, 16 UTVs, 12 trailers, 2 excavators, 1 skidsteer, and 1 helicopter to transport the majority of equipment and materials to the site. The Line 5 Reroute has less accountability in both conditions and equipment inspections, a much longer timeline, and far more extensive equipment. The Line 5 Reroute will result in the spread of invasive species that will violate the Band's water quality, including wetland uses.

6. The Band has Established the Hydrologic Connection Between the Line 5 Reroute Impacts and the Reservation Waters

The Bad River,[101] 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, she drains 138,873[102] acres of land and she is the receiving water for the Tyler Forks River[103], Marengo River[104], Potato River[105], and White River[106] 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 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.

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[100] *Id*.
[101] HUCs 0401030203 & 0401030207.
[102] Excludes the acreage of Graveyard Creek-Frontal Lake Superior (400103020703).
[103] HUC 0401030202.
[104] HUC 0401030204.
[105] HUC 0401030205.
[106] HUC 0401030206.

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[107] 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[108] and Fish Creek-Frontal Chequamegon Bay.[109] 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 and storm surges, as described earlier in this letter.

Evidence of the significant hydrologic connections, and that activities in the headwaters can generate impacts that move large distances downstream, has been documented by GLIFWC, of which the Band is a member tribe.[110] As GLIFWC's mapping work demonstrates, establishing a hydrologic connection between the Reservation boundary, where the Band's water quality standards apply, and the watersheds of concern that the Band has identified is relatively straightforward when using appropriate data, which neither Enbridge's models nor the EPA's recommendations incorporated.

Figure 5, below, illustrates the major rivers and streams downgradient of the proposed Line 5 Reroute. This entire network flows to Lake Superior with most of the flow passing through the Bad River Reservation along the way.

[107] HUC 040103011101.
[108] HUC 040103020703.
[109] HUC 40103011105.
[110] See *Surface Water Connections Between the Proposed Line 5 Reroute and the Bad River Reservation – Preliminary Memo* (June 6, 2025), Esteban Chiriboga, GLIFWC, Appendix 7.

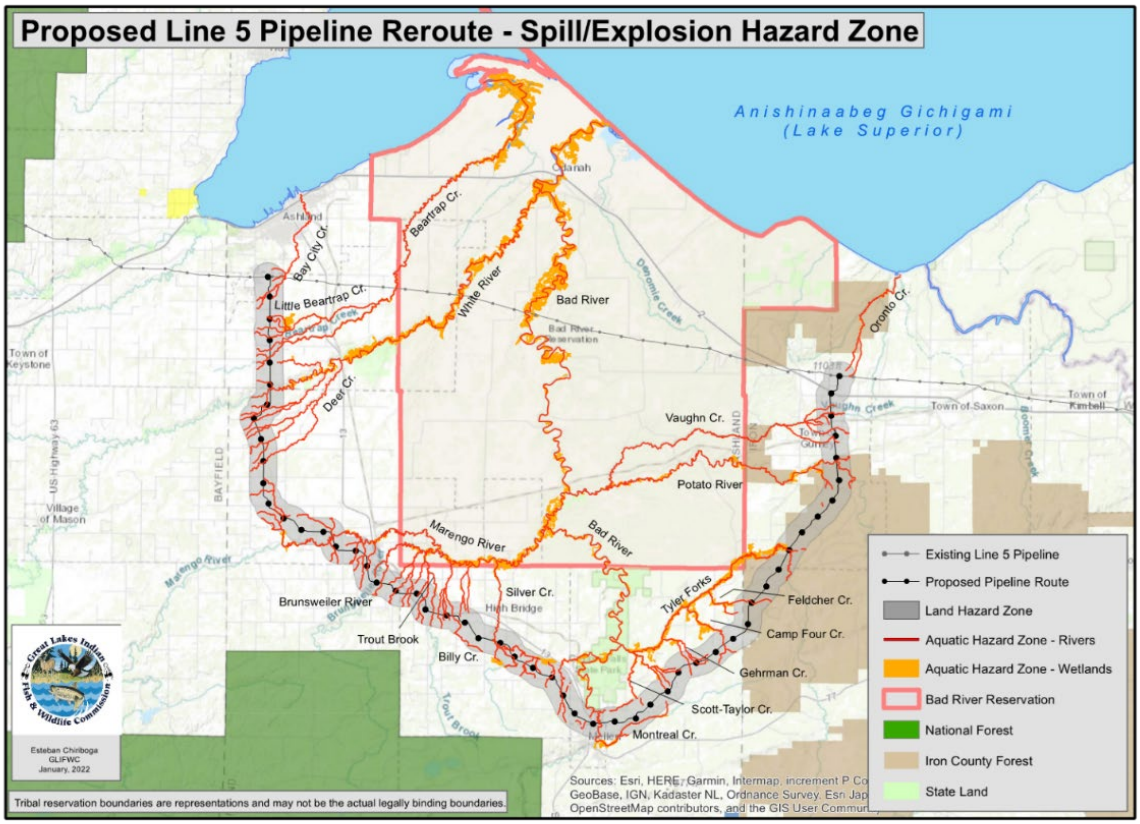

Figure 2: *Major rivers and streams downgradient of the proposed Line 5 Reroute*

The impact area includes several streams that are classified as Outstanding Resource Waters and Exceptional Resource Waters by both State and Tribal governments, as well as streams that are classified as Outstanding Tribal Resource Waters by the Band. These waters are connected across the Reservation boundary therefore, the regulatory connection mirrors the hydrologic connections.

The Line 5 Reroute is also located in close proximity to the Reservation boundary which means that any pollutants generated from pipeline construction and operation have very little time to be diluted before reaching the Reservation boundary.

Figure 6 and Table 1 show that the Vaughn Creek crossing is 4.9 river miles upstream of the Reservation, the Potato River and Tyler Forks crossings are 4.3 and 2.9 river miles upstream of the Reservation, respectively, and the Brunsweiler River crossing is 2.0 miles upstream of the Reservation boundary. The proposed crossings on two Brunsweiler tributaries are even closer to the Reservation boundaries; these two tributaries flow unto the Reservation only one river mile downstream of the with only 0.95-1.05 river miles away.

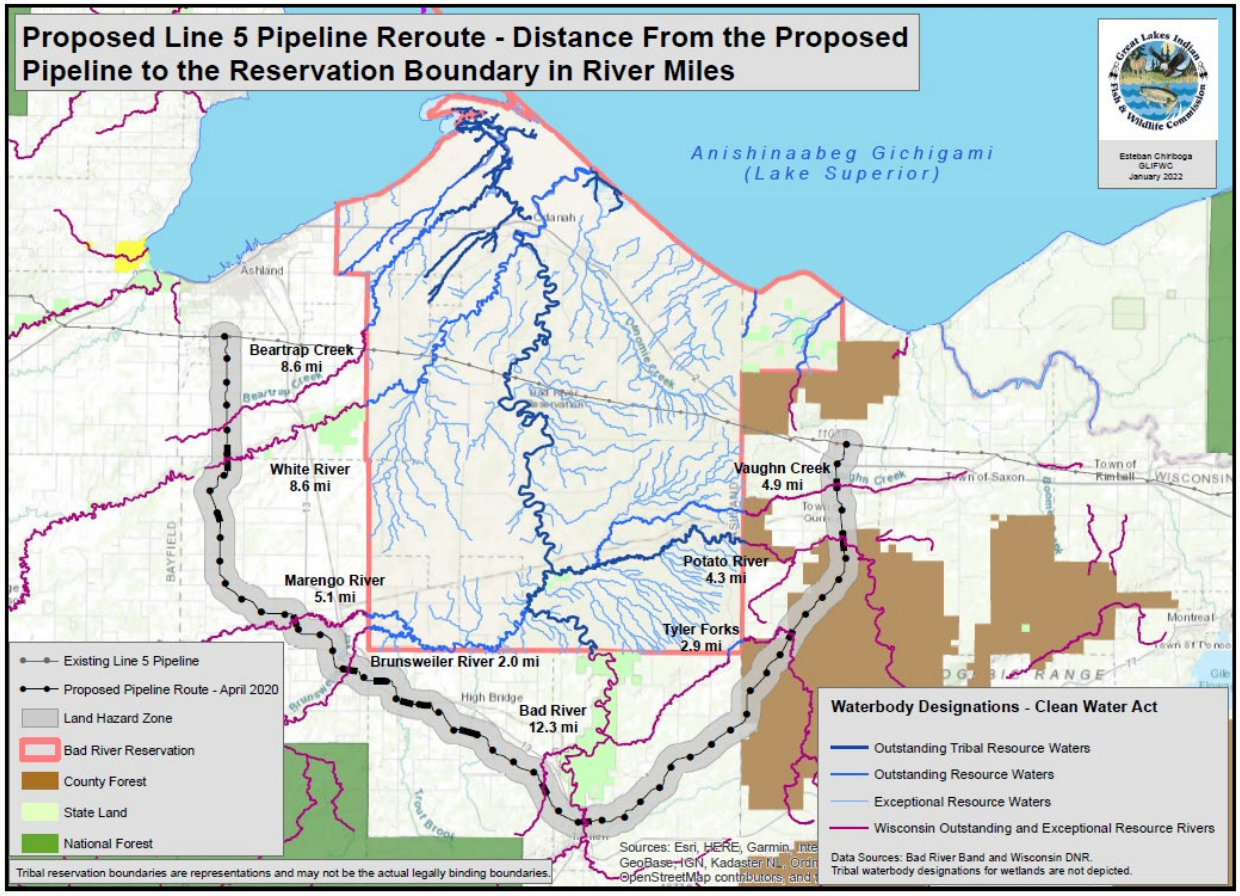

Figure 3: *Distance in river miles between the proposed reroute and the Bad River Reservation. Map also illustrates waters designated as Outstanding Resources Waters and Exceptional Water Resources (ORW, ERW) by Bad River and the State of Wisconsin, as well as Outstanding Tribal Resource Waters (OTRW).*

Table 1: *Distance in river miles from crossings of the Line 5 Reroute over ORW and ERW rivers to the boundary of the Bad River Reservation*

River Crossing	Distance to Reservation	River Crossing	Distance to Reservation
Beartrap Creek	8.6	Silver Creek	3.3
White River	8.6	Bad River	12.3
Marengo River	5.1	Tyler Forks River	2.9
Brunsweiler River	2.0	Potato River	4.3
Vaughn Creek	4.9	Unnamed Stream 1	0.95
Unnamed Stream 2	1.05		

Enbridge and the regulatory agencies rely on stream Geographic Information System (GIS) datasets maintained by the State of Wisconsin or the National Hydrography Dataset, as well as wetland data from the Wisconsin Wetland Inventory. These datasets were created through aerial photo and United States Geological Survey (USGS) quadrangle map interpretation at a 1:24000 scale. The major flaw with the use of this method is that it is difficult, if not impossible, to visually identify wetlands and streams in forested environments through aerial photos and quadrangle maps, which is most of the area that would be crossed by the pipeline reroute.

The Band has repeatedly informed the regulatory agencies, including the Corps, that the water resources impacted by the Line 5 Reroute are significantly underestimated and updated mapping should be incorporated. The work of GLIFWC clearly demonstrates just how significantly the impacted water resources are underestimated.

Light Detection and Ranging (LIDAR) based mapping is far more accurate than air photo interpretation and is done at a 1:1000 scale. Stream and wetland data using this more accurate method were added to the National Wetland Inventory in 2023 for the Vaughn Creek, Potato River, and Tyler Forks watersheds. The Upper Bad River watershed data is expected to be added to the NWI in June 2025. This more recent wetland mapping, which is based on interpretation of LIDAR data, represents a significant improvement to the NWI data that was used during the analysis of environmental impacts for the proposed reroute. LIDAR derived data show increased wetland acres across the entire Tyler Forks watershed when compared to older data. This comparison is illustrated below.

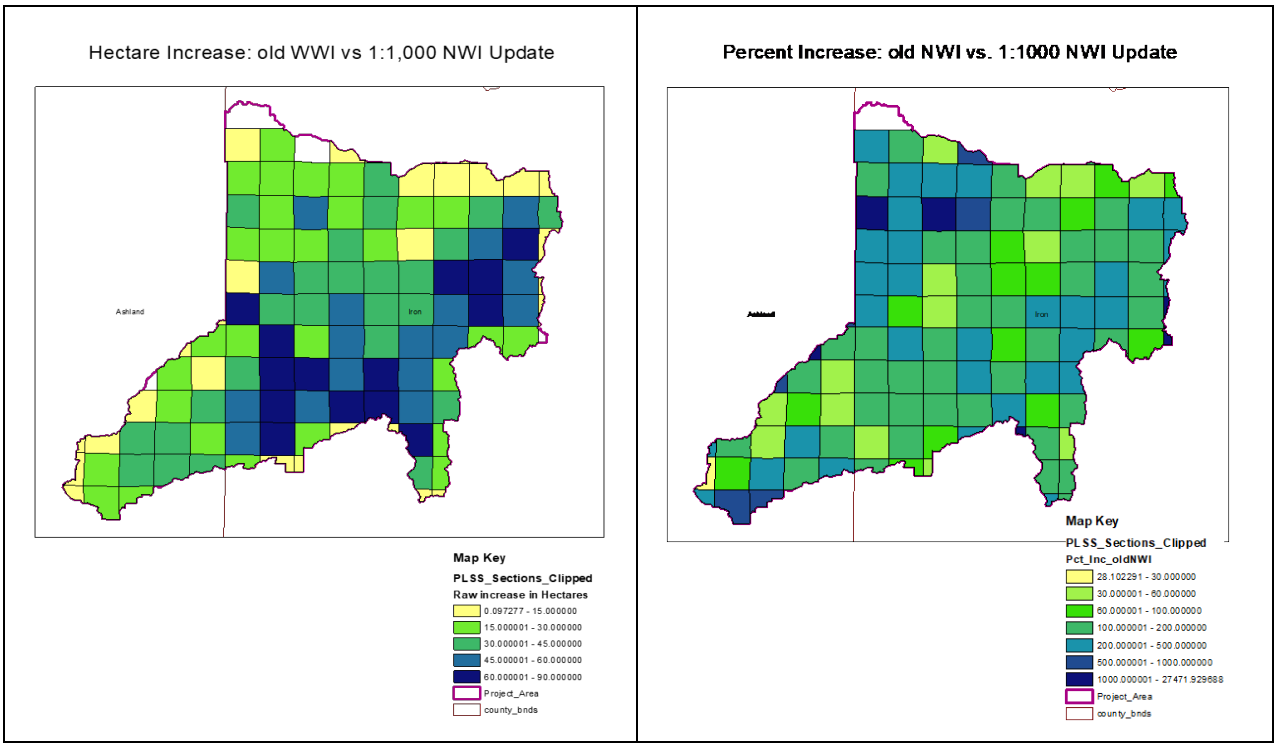

Figure 7: *Increased documented wetland acreage with more accurate data in the Tyler Forks watershed.*

The yellow grids show an increase of 2.5 to 37 documented wetland acres, up to the blue boxes that show an increase of documented wetland of 148 to 222 acres. These more accurate data produce an acreage increase of documented wetlands from 30% to orders of magnitude. This indicates that wetland acreage, and therefore potential wetland impacts from construction and operation of the Line 5 Reroute, have been underestimated.[111]

Similar increases in documented wetland acres are seen with LIDAR-based mapping completed in 2025 for the upper Bad River watershed. Most of the area indicates an increase in documented wetland area of up to 100 acres per section. A few sections, including one at southwest corner of the Reservation, which is in the impact areas of pipeline construction, show increases of 150 to 225 acres of documented wetland acres.[112]

[111] Appendix 7, at 6-7, Figure 5.
[112] *Id*. at 8, Figure 6.

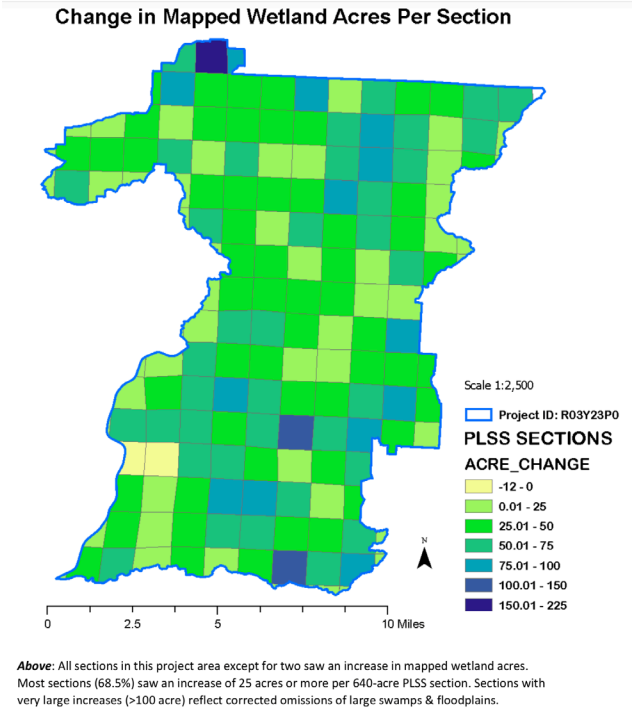

Figure 8: *Increased documented wetland acreage with more accurate wetland mapping in the upper Bad River watershed.*

The LIDAR based mapping also shows significant increases in the length and density of stream Networks, which confirms the long-stated position of GLIFWC and Bad River that the hydrologic connectivity between the proposed Line 5 Reroute and the Reservation boundary has been severely underestimated, with a corresponding underestimate of the potential for water quality violations at the Reservation boundary.[113]

[113] *Id.*

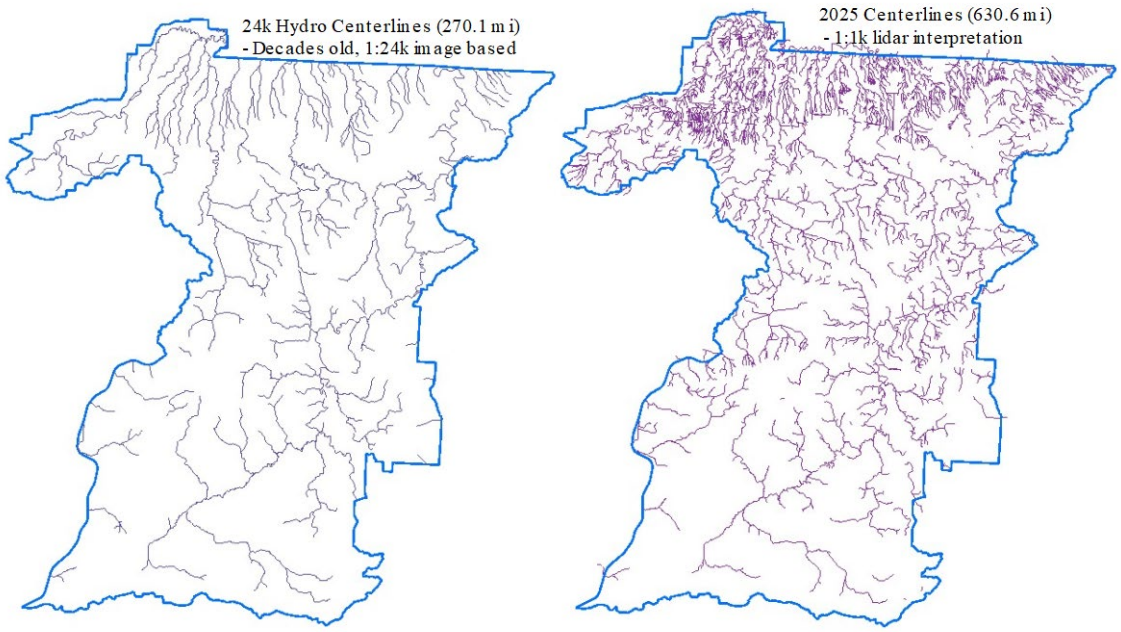

Figure 9: *Increase in documented stream density and length with more accurate mapping in the upper Bad River watershed.*

The increase in the stream network is readily apparent in Figure 9. The WDNR 1:24000 data indicated 270.1 miles of streams in the upper Bad River watershed. The 1:1000 data indicates that there are actually 630.6 miles of streams in the upper Bad River watershed. This constitutes an increase of 233.5%. Most of that increase consists of small streams just south of the Reservation boundary in the area between the proposed Line 5 Reroute and the Reservation boundary.[114]

GLIFWC's work comparing old 1:24000 scale with 1:1000 scale wetland and hydrology data at key areas between the Line 5 Reroute and the Reservation boundary clearly demonstrates the

[114] *Id*., at 8-9 and Figure 7.

richness of the hydrologic connections in the watershed, the wide distribution of wetlands across the landscape, connectedness of the wetlands and a complete hydrologic network of streams.[115]

The GLIFWC data also clearly demonstrate that the assumptions about wetland acreage and hydrologic connectivity made by the Corps and the EPA are flawed. The shortcomings of the existing hydrographic data underestimate the magnitude of transport of contaminants from the proposed Line 5 Reroute to the Reservation boundary. The modeling performed by Enbridge is similarly flawed, and its "conservative estimate" of the fate and transport of pollutants is neither conservative, nor accurate. Additionally, the classification of streams in Enbridge's data as ephemeral and intermittent has been a continued concern for the Band and GLIFWC. The Band and GLIFWC have submitted substantive comments on this issue to both WDNR and the Corps since 2020 as well as raising the concern in technical meetings during that timeframe. Misclassification of stream flow duration as ephemeral and intermittent misrepresents the hydrological connectivity on the landscape and how readily pollutants will be transported downstream to the Reservation.

Discharges from the Line 5 Reroute will reach Reservation waters, and will violate the Band's narrative and numeric criteria, its designated uses, and its antidegradation standards. The conclusions drawn by the EPA regarding whether discharges from the Line 5 Reroute will reach Reservation waters are based on demonstrably false information regarding site hydrology, and therefore its determination that the Line 5 Reroute will not violate the Band's water quality standards is arbitrary and capricious.[116]

This conceptual model of hydrologic connectivity between a proposed landscape altering project and a Reservation boundary is something that the Corps already has recognized. In 2023 the Fond du Lac Band successfully challenged a Corps permit for the proposed NorthMet mine. That challenge was based on evidence that contaminants from the mine would move through shallow groundwater and wetlands to headwater streams. The contaminants would remain suspended as water moved from headwater streams to the St. Louis River, all the while interacting with riparian wetlands, to the Fond du Lac Reservation boundary. The Corps found the work of GLIFWC and the testimony of Mr. Chiriboga both credible and compelling in the NorthMet Mine 401(a)(2) process.

The St. Louis River and the Bad River are both similarly sized rivers in HUC 8 watersheds. The environmental conditions with the Line 5 Reroute are remarkably similar. Activities that will lead

[115] *Id*. 10-18 and Figures 8-15.
[116] *Blanford v. United States Citizenship*, 741 F. Supp. 3d 778 (N.D. Ind. 2024)

to violations of the Bad River Band's water quality standards will be conducted immediately upstream of the Reservation, as close as less than a river mile away.

A 2015 EPA report[117] summarized the then-current understanding about the connectivity and mechanisms by which streams and wetlands affect the physical, chemical, and biological integrity of downstream waters. Key findings that are implicated by the Line 5 Reroute include the following:

- The scientific literature unequivocally demonstrates that streams, individually or cumulatively, exert a strong influence on the integrity of downstream waters. All tributary streams, including perennial, intermittent, and ephemeral streams, are physically, chemically, and biologically connected to downstream rivers via channels and associated alluvial deposits where water and other materials are concentrated, mixed, transformed, and transported.

- The literature provides robust evidence that streams are biologically connected to downstream waters by the dispersal and migration of aquatic and semiaquatic organisms, including fish, amphibians, plants, microorganisms, and invertebrates, which use both upstream and downstream habitats during one or more stages of their life cycles, or provide food resources to downstream communities.

- Riparian/floodplain wetlands and open waters improve water quality through the assimilation, transformation, or sequestration of pollutants, including excess nutrients and chemical contaminants such as pesticides and metals, which can degrade downstream water integrity. In addition to providing effective buffers to protect downstream waters from point source and nonpoint source pollution, these systems form integral components of river food webs, providing nursery habitat for breeding fish and amphibians, colonization opportunities for stream invertebrates, and maturation habitat for stream insects.

- Wetlands and open waters in non-floodplain landscape settings (hereafter called "non-floodplain wetlands") provide numerous functions that benefit downstream water integrity. These functions include storage of floodwater; recharge of ground water that sustains river baseflow; retention and transformation of nutrients, metals, and pesticides; export of organisms or reproductive propagules to downstream waters; and habitats needed for

[117] *Connectivity of Streams and Wetlands To Downstream Waters: A Review and Synthesis of the Scientific Evidence* (Final Report) (January 2015), appended hereto as Appendix 16.

stream species. Variations in the degree of connectivity influence the range of functions provided by streams and wetlands, and are critical to the integrity and sustainability of downstream waters.

- The incremental effects of individual streams and wetlands are cumulative across entire watersheds and therefore must be evaluated in context with other streams and wetlands. Downstream waters are the time-integrated result of all waters contributing to them. For example, the amount of water or biomass contributed by a specific ephemeral stream in a given year might be small, but the aggregate contribution of that stream over multiple years, or by all ephemeral streams draining that watershed in a given year or over multiple years, can have substantial consequences on the integrity of the downstream waters. Similarly, the downstream effect of a single event, such as pollutant discharge into a single stream or wetland, might be negligible but the cumulative effect of multiple discharges could degrade the integrity of downstream waters.

- In addition, when considering the effect of an individual stream or wetland, all contributions and functions of that stream or wetland should be evaluated cumulatively.

There is an enormous diversity of fish and wildlife resources that rely on the Reservation environment, its rivers and streams, and its variety of wetlands. Some examples include:

- **Birds:** Hairy woodpecker, northern goshawk, Coopers hawk, sharp-shinned hawk, great horned owl, great gray owl, barred owl, bald eagle, osprey, northern harrier, trumpeter swan, blue-winged teal, turkey vulture, ruffled grouse, yellow rail, rufa red knot, piping plover, warblers, Scarlet Tanagers

- **Fish:** muskellunge, northern pike, large & small mouth bass, walleye, perch, lake sturgeon, yellow perch, sunfish, brook trout, white sucker, coaster brook trout, redhorses, and bullheads

- **Mammals:** beaver, porcupine, squirrels, mice, voles, bobcat, coyote, black bear, muskrat, red and gray fox, fisher, raccoon, ermine, striped skunk, river otter, Canada lynx, Grey wolf

- **Reptiles and Amphibians:** blue spotted salamander, eastern tiger salamander, mudpuppy, four toed salamander; northern ring-necked snake, north American racer, red-bellied snake; northern leopard frog, mink frog, gray tree frog, boreal chorus frog, wood frog; spiny soft-

shell turtle, blanding's turtle, snapping turtle, eastern musk turtle, painted turtle; wood turtle; skinks

Reservation waters support rare, threatened, and endangered species, including piping plover, gray wolves, wood turtle, yellow rail, Rufa red knot, mayfly species, swamp-pink, Ram's-head lady's slipper, and Hooker's orchid. The Band's water quality standards protect and preserve these species. Other significant tribal values and uses that are protected by the Band's water quality standards are wild rice cultivation and harvesting, ceremonial practices, and subsistence hunting, fishing, and gathering, including medicines.

By seriously underestimating the extent, classification, quality, and connectivity of these aquatic habitats, the Corps is clearly underestimating the water quality impacts at the Reservation boundary from land use changes that have and will occur in the watersheds of concern.

7. Wisconsin's CWA Section 401 Certification Conditions Will Not Prevent Violations of the Band's Water Quality Requirements

The WDNR determined that "there is reasonable assurance that the proposed activity will be conducted in a manner that will comply with state water quality standards enumerated in ss. NR 103.03, 103.08, and 299.04, Wis. Adm. Code, and grants water quality certification with conditions."[118] The state imposed 231 conditions on the Line 5 Reroute to be integrated into the Corps' permitting decisions "to ensure compliance with the Clean Water Act Section 401 and state water quality standards enumerated in ss. NR 103.03, 103.08(4) and 299.04, Wis. Adm. Code."[119]

The Band's water quality standards were not considered in the State of Wisconsin's 401 certification of the Project. That is unsurprising, because state was not required to do so. The two sections of CWA 401(2) are separate, independent analyses. Section 401(a)(1) empowered Wisconsin, as the primary certifying authority with a discharge in its waters, to ensure that a project complies with Wisconsin's water quality requirements. Section 401(a)(2) acts as a safeguard for a neighboring jurisdiction, the Band, to prevent a project from negatively affecting the Band's water quality requirements.

The conditions in Wisconsin's permits and 401 certification will not ensure the Band's water quality standards and other water quality requirements will be met for regulated activities discharging to waters located upstream or adjacent to surface waters within the Reservation

[118] Enbridge Line 5 Wisconsin Segment Relocation Project Water Quality Certification, Docket # IP-NO-2020-2-N00471 (November 14, 2024).
[119] *Id*.

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.

Wisconsin's 401 certification is currently being challenged in state fora. The Bad River Band filed a petition for a contested case hearing on the validity of the certification on December 12, 2024.[120] Several environmental groups also filed a petition challenging the state wetland and waterway permits, and the state water quality certification. On January 2, 2025, WDNR granted the Band's petition for a contested case proceeding and also granted the Band's request for a stay pending an administrative hearing in order to prevent significant adverse impacts or irreversible harm to the environment. One of the issues included in WDNR's grant letter was "Whether activities authorized by Permit # IP-NO-2020-2-N00471 meet state water quality certification standards under Wis. Adm. Code § 299.04."[121] WDNR referred the matter to the Wisconsin Division of Hearings and Appeals on January 24, 2025.[122]

The Band raised material disputes to several Findings of Fact in the state Water Quality Certification. The evidence supporting the Band's material disputes will be presented in the contested case proceeding in September in front of a state Administrative Law Judge (ALJ). At the conclusion of the contested case proceeding, the ALJ "shall prepare findings of fact, conclusions of law and decision[.]"[123]

The ALJ has the authority to set aside the wetland and waterway permits and the water quality certifications as a potential remedy if it finds that the Department's actions depends on findings of fact that is not supported by evidence.[124] The contested case proceeding may result in different findings of fact than those supporting the current water quality certification, and the state water quality certification may be set aside as a result. The current scheduling order set dates throughout August, September, and early October 2025 for the contested case trial.

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[120] In the Matter of Waterway and Wetland Permit and Water Quality Certification under No. IP-NO-2020-2-N00471, and Coverage Under WPDES General Permit No. WI-S067831-06 Issued to Enbridge Energy, LP. (Dec. 12, 2024)
[121] Letter from DNR to Counsel for Bad River Band, Midwest Environmental Advocates, and Clean Wisconsin, Jan. 2, 2025.
[122] Department of Natural Resources, Request for Hearing, Jan. 24, 2025.
[123] Wis. Adm. Code NR § 2.155(1).
[124] Wis. Stat. § 227.57(6).

The Band repeatedly requested the Corps hold off on conducting the CWA 401(a)(2) hearing and compliance determination until the contested case is resolved because the underlying water quality certification may be altered or set aside as invalid. This procedural deficiency can result in the Corps making erroneous findings of the Line 5 Reroute Project's impacts to state and downstream jurisdiction water quality **because the water quality certification does not reflect accurate information or disclose the full extent of the Project's water quality impacts.**

Significantly, if the underlying water quality certification is invalid, then the applicant cannot comply with 33 U.S.C. § 1341(a)(1).[125] And "[n]o license or permit shall be granted if certification has been denied by the State[.]"[126] Even though the certification was granted, that certification may be set aside for failure to comply with Wisconsin state laws and regulations. **The Corps cannot make a premature permitting decision while underlying documents on the state's water quality certification are under judicial review.**

Even if Wisconsin's water quality certification is valid, and performance of the 231 conditions will ensure compliance with Wisconsin's water quality standards, compliance with Wisconsin's water quality standards will not ensure compliance with the Band's water quality standards. The Band's water quality standards are stricter, and more protective, for a variety of pollutants.

The Wisconsin 401 certification fails to ensure compliance with the Bad River Band's more stringent water quality standards. It does not recognize or incorporate the Band's designated uses. It allows the permanent conversion of protected wetlands. It substitutes vague procedural BMPs for enforceable water quality criteria. It provides no protection for hydrologic or ecological functions critical to tribal cultural and subsistence uses.

An agency's decision must be set aside if it is arbitrary, capricious, an abuse of discretion, unsupported by substantial evidence in the case, or not in accordance with law."[127] "Substantial evidence," is "evidence a reasonable mind would find adequate to support a conclusion."[128] An agency determination is arbitrary and capricious if it "runs counter to the evidence before the

[125] "Any applicant for a Federal license or permit to conduct any activity…which may result in any discharge into navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 1311, 1312, 1313, 1316, and 1317 of this title."
[126] *Id.*
[127] *Little Co. of Mary Hosp. v. Sebelius*, 587 F.3d 849, 853 (7th Cir. 2009); 5 U.S.C. § 706.
[128] *Ghaly v. INS*, 48 F.3d 1426, 1431 (7th Cir. 1995).

agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise."[129]

By any measure, the EPA's determination that Wisconsin's 401 Certification conditions will protect the Band's water quality is arbitrary, capricious, and unsupported by substantial evidence. The Corps should not compound the error by relying on the EPA's determination.

a. The Band's Water Quality Criteria: Designated Uses

The Band has adopted unique designated uses that reflect the Tribe's subsistence, cultural, and ecological priorities. These include cultural use, wild rice waters, cold water fishery, and wetland functions. These uses have no corollary in are Wisconsin's classification system, and are not protected by Wisconsin's water quality standards.

i. Cultural Use (F.1 "C1")

The Band designates "Cultural water use" as a protected use, defined as "activities involving traditional Ojibwe (Chippewa) practices which includes ceremonies, harvesting, hunting and fishing, actual or historical."[130] This includes "primary and secondary contact and ingestion."[131]

Wisconsin's water quality standards do not recognize cultural use as a stand-alone designated use. While the state acknowledges general recreational and aquatic life uses,[132] it does not contain any specific narrative or numeric criteria or antidegradation provisions to preserve Indigenous ceremonial, medicinal, or subsistence practices. Thus, the Band's standard is categorically more stringent.

ii. Wild Rice Waters (F.2 "W1")

The Band classifies waters supporting wild rice as a separate use class, requiring conditions that "[s]upports or has the potential to support wild rice habitat for sustainable growth and safe consumption."[133] Additionally, E.6.ii.c. specifies that

[129] *Orchard Hill Bldg. Co. v. U.S. Army Corps of Eng'rs*, 893 F.3d 1017, 1024 (7th Cir. 2018).
[130] Bad River WQS § D.14 (July 6, 2011), Appendix 3.
[131] Bad River WQS § F.1(C1).
[132] See Wis. Admin. Code NR § 102.04(1).
[133] Bad River WQS § F.2.

> [W]ater 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.

By contrast, Wisconsin law does not include wild rice as a designated use nor does it provide criteria specifically protecting this resource. Narrative provisions regarding plant life do not mention wild rice, despite its ecological and cultural significance.[134] The regulation lists "wild rice waters" as "wetland areas of special concern,"[135] and requires impacts to those wetlands be "considered" by the department when making decisions, but no special care is taken or required under the code.[136] The absence of any wild rice-specific standard renders Wisconsin's protections weaker than the Band's.

iii. Cold Water Fishery (F.5 "F1")

The Band's water quality standards classify many waters as cold water fisheries and require stringent conditions for temperature and dissolved oxygen to support all life stages of native species. For example, "there shall be no measurable increase in temperature from other than natural causes," and "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."[137]

Although Wisconsin has comparable cold water fishery designations,[138] the oxygen criterion is less strict in practice and lacks narrative prohibitions against cumulative, chronic stressors.[139] Wisconsin law allows more discretion regarding temperature, with sub-lethality to species as the floor.[140]

[134] NR 102.04(1)(a).
[135] NR 103.04(11).
[136] NR 103.08(1m)(3).
[137] Bad River WQS § E.6(ii) and 7(i).
[138] E.g., Wis. Admin. Code NR § 102.04(3)(a).
[139] See 102.04(4)(a).
[140] See 102.04(4)(e), 102.22.

iv. Wetlands (F.10 "W3")

The Band's standards require protection of wetland uses, meaning "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."[141] The wetland classification applies to "area[s] that are inundated or saturated at or near the surface caused by surface water or groundwater . . . [that] support a prevalence of vegetation typically adapted for life in saturated soil conditions."[142]

Wisconsin's definition is similar,[143] but allows degradation in return for "mitigation."[144] This flexibility undermines the Band's stricter position that the wetlands existence on its own is a "use" that requires protecting.

b. The Band's Water Quality Criteria: Narrative and Numeric Standards

The Band's criteria[145] include both narrative and numeric provisions, with stricter thresholds and broader prohibitions than Wisconsin's counterpart rules.[146]

i. Turbidity (E.7.iii)

Turbidity "[s]hall 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."[147] Wisconsin lacks any numeric turbidity criterion and relies instead on vague narrative protections of "unsightliness."[148] This makes enforcement uncertain and clearly less protective of visual quality and light penetration essential for wild rice, subsistence fishing, ceremonial, and other uses.

[141] Bad River WQS § F.6.
[142] § D.43.
[143] See NR 103.02(5), 104.02(c).
[144] NR § 103.08.
[145] Bad River WQS, §§ E.6–E.7.
[146] NR chs. 102–105.
[147] Bad River WQS § E.7.iii.
[148] NR § 102.04(1).

ii. Dissolved Oxygen (E.7.i)

"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 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."[149] Wisconsin's standard[150] provides similar values for dissolved oxygen, but allows variances. Additionally, the Band's water quality standards for dissolved oxygen apply to all waterbodies capable of supporting aquatic life (except Kakagon Sloughs, Bad River Sloughs, and wetlands due to their natural conditions), where Wisconsin's apply based on type of waterbody.

iii. pH (E.7.ii)

Under the Band's water quality standard for pH, "[n]o 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."[151] By comparison, Wisconsin permits a wide range—6.0 to 9.0, with no change permitted greater than 0.5 units outside the "estimated natural seasonal maximum and minimum" for fish and aquatic life uses[152] and does not prohibit sublethal stress from pH shifts. The Band's narrower range is more protective.

The Band's standards contain numeric criteria for multiple pollutants[153] derived for the protection of aquatic life including, but not limited to, acute and chronic criteria that are not dependent on other water characteristics[154] of the Band's water quality standards along with acute and chronic criteria that are dependent on other water characteristics, such as pH and hardness.[155] Of special concern is mercury, where the Band's standards are significantly more protective than Wisconsin's.[156]

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[149] Bad River WQS § E.7.i.
[150] NR 102.04(4)(a).
[151] Bad River WQS § E.7.ii.
[152] NR 102.04(4)(c).
[153] See §§ H.1. through H.3.
[154] Tables 2 and 4.
[155] Tables 3 and 5.
[156] Compare Bad River WQS §§ H.1, H.4 - H.9 with NR 105.04 - NR 105.08, Table 8.

c. The Band's Water Quality Standards: Narrative Criteria

The Band's general narrative criteria prohibits pollutants to 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."[157] Specifically,

> 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 [s]ettle to form objectionable deposits; [f]loat as debris, scum, oil, or other matter forming nuisances; [p]roduce objectionable color, odor, taste, or turbidity; [c]ause injury to, are toxic to, or produce adverse physiological responses in humans, animals, or plants; [p]roduce undesirable or nuisance aquatic life; [p]roduce nutrients or other substances that stimulate algal growth producing objectionable algal densities, nuisance aquatic vegetation, dominance of any nuisance species instream, or cause nuisance conditions in any other fashion; or [a]dversely affect the natural biological community of the waterbody.[158]

Wisconsin's regulations do not contain the same broad prohibition against pollutants – it merely prohibits "concentrations which adversely affect public health or welfare, present or prospective uses of surface waters for public or private water supplies, or the protection or propagation of fish or other aquatic life or wild or domestic animal life."[159] The more specific provisions include a similar list of prohibitions.[160] The Band's water quality standards apply to all waters, including wetlands, and all substances that cause a nuisance or adversely affect the natural or biological community. Wisconsin's less stringent requirements demonstrate a much higher tolerance for less desirable water quality.

The Band's narrative criteria are more comprehensive and impose a higher level of protection, ensuring that "[n]atural hydrological conditions supportive of the natural biological community,

[157] Bad River WQS § E.6.ii.a.
[158] Bad River WQS § E.6.i.
[159] NR 105.04.
[160] NR 102.04(1)("objectionable deposits," floating debris, oil, scum or other material," "produce objectionable color, odor, taste, or unsightliness, and "Substances in concentrations or combinations which are toxic or harmful to humans shall not be present in amounts found to be of public health significance, nor shall substances be present in amounts which are acutely harmful to animal, plant or aquatic life.").

including all flora and fauna, and physical characteristics naturally present in the waterbody shall be protected to prevent any adverse effects."[161] The Band's narrative criteria applies to streams, rivers, oxbows, wetlands, and other surface waters. Wisconsin's standard employs a set of six criteria to wetlands to ensure only that "[h]ydrological conditions necessary to support the biological and physical characteristics naturally present in wetlands" but only to prevent "significant adverse impacts."[162]

The Band's water quality standards prohibit any human-induced changes to waters, including area hydrology, that "results in changes to the natural biological communities and wildlife habitat" or changes the normal migration of species and natural fluctuations of the waters.[163] Wisconsin's water quality standards have no corollary prohibition.

The Band's standards also prohibit any alteration of existing mineral quality or measurable change in temperature for other than natural causes.[164] Wisconsin has no corollary mineral quality provision, and its temperature consideration requires a temperature change so significant that it "adversely affect[s] aquatic life."[165]

d. The Certification Allows the Permanent Conversion of Wetlands

The Line 5 Reroute will permanently convert large areas of forested and scrub-shrub wetland to emergent marsh within the pipeline right-of-way. Wisconsin acknowledges this in Permit Table 1, but does not prohibit such conversion. Instead, WDNR simply requires that "[n]o wetlands may be disturbed beyond the area specifically described in Permit Table 1."[166]

Wisconsin's certification does not require functional preservation of wetland structure, hydrology, or dependent species composition. Nor does it address the loss of forested wetland canopy or habitat fragmentation. This is flatly inconsistent with the Band's standards, which provide that wetlands shall be protected against any degradation of hydrologic function, habitat structure, or other attributes that support their designated uses.[167]

[161] Bad River WQS § E.6.ii.d.
[162] NR 103.3(2)(2).
[163] Bad River WQS § E.6.ii.e.
[164] Bad River WQS § E.6.ii.F, g.
[165] NR 102.24.
[166] Final WQC, Condition 206.
[167] Bad River WQS § F.10.

Wild rice is designated use of some of the affected wetlands downstream on the Reservation. Wild rice has been a nutritional staple for members of the Band for generations beyond memory, and continues to provide a substantial portion of the protein and other nutritional needs of the Band's members. The annual harvest of wild rice is a traditional event of long-standing cultural importance, and the preservation of wild rice is critical for meeting the economic, nutritional, and subsistence needs of the Band's members. The Band's water quality standards and antidegradation provisions ban any interference with designated uses, including wild rice.[168]

Wisconsin's certification neither identifies wild rice as a use nor imposes any avoidance, minimization, or mitigation requirement specific to wild rice habitat. The absence of any protections under Wisconsin's certification stands in stark contrast to the Band's documented field data showing that changes in hydrology, sedimentation, and turbidity caused by construction and clearing in adjacent wetlands will adversely impact downstream wild rice beds and violate the Band's water quality standards.[169]

e. Reliance on Best Management Practices (BMPs) is Ineffective and Will Not Prevent Water Quality Violations on the Reservation

Wisconsin's 401 certification relies heavily on the implementation of Best Management Practices (BMPs), such as erosion control, silt fences, and buffer zones. For example, "[y]ou shall implement the approved ECP, dated October 2024,"[170] and "ensure that all aquatic resources in the vicinity of the construction area that are not authorized to be impacted are clearly identified in the field."[171]

However, BMPs are procedural tools, not enforceable criteria. They are only as effective as their design and implementation, and they do not substitute for compliance with numeric water quality standards. The Band's standards include significant non-discretionary criteria such as turbidity, sedimentation, and bioaccumulation.[172]

Wisconsin law, by contrast, contains no numeric turbidity standard, and its narrative provisions allow substantial discretion in enforcement. The Wisconsin certification does not contain any numeric benchmarks for sediment, turbidity, or nutrient loading and imposes no cumulative impact analysis. It simply requires the contractor to implement BMPs and monitor stabilization post-

[168] Bad River WQS § E.5.i-iii, E.6.ii.c.
[169] Bad River "Will Affect" Analysis at 41, 46, 50, 68.
[170] Final WQC, Condition IV.6
[171] *Id*., Condition IV.10.
[172] See e.g. Bad River WQS § E.7.iii, E.6.ii.a–e.

construction.[173] This reliance on implementation plans and vague requirements, in the absence of enforceable criteria, cannot satisfy the Band's more protective and specific narrative and numeric criteria.

The Band's determination that BMPs required under Wisconsin's certification, and assurances by the applicant, will not prevent violations of the Band's water quality standards has been borne out by Enbridge projects constructed on the Reservation, including the Check Valve project[174] and the Denomie Creek Tributary Modification project.[175]

i. Enbridge Check Valve Installation Project near the Bad River

The Check Valve project was conditionally approved by the Band for Enbridge to install one check valve[176] on the Line 5 pipeline within the Reservation east of the Bad River (Latitude: 46.53330362 / Longitude: -90.66503829). The project was constructed between May and August 2024, resulting in the installation of the first valve within the Reservation boundaries. This project is an example of similar regulated activities and water quality effects that could be authorized by the Corps associated with the construction, maintenance, or operation of the Enbridge Line 5 Reroute in watersheds adjacent to the Reservation and connected to the Band's waters.

An approximately 1.5-mile-long pipeline corridor was used as an access route to the location of the installed check valve. The wetlands crossed and watercourses near this project are classified as

[173] See e.g. Final WQC, Condition IV.12: "You shall maintain the pipeline in a manner that ensures it does not cause deleterious impacts to waterways, wetlands, and/or groundwater."
[174] See Appendix 13, 14.
[175] See Appendix 14.
[176] A check valve is a type of emergency flow restriction device capable of reducing the amount of oil and other hazardous liquids released as a result of a pipeline leak or rupture. The valve operates by only permitting the flow of oil in one direction. If a leak or rupture happens on a section of pipe upstream from the valve in the direction of oil flow, the valve will close and prevent oil downstream of the valve from flowing backwards and through that rupture. Unlike a conventional, above-ground valve, a check valve operates automatically and immediately and without any additional comments or inputs from the company. The purpose of the check valve here is to reduce the potential amount of oil that could be released from the pipeline if a rupture were to occur on the stretch of the pipeline west of the proposed check valve location, including at a meander of the Bad River.

Exceptional Resource Waters under the Band's Antidegradation Policy, and are protected for cultural, wildlife, aquatic life and fish, and recreational uses, among other uses.

The check valve project consisted of creating access to installation site, tree clearing, excavation, and installation of the check valve below ground level. The BMPs included temporary construction matting for access and workspaces, and temporary erosion and sediment controls. The existing pipeline was excavated, perimeter fencing was installed, bypass or "stopple" valves were installed on the pipeline during, a check valve foundation was poured, the pipeline and valves were recoated, the excavation was backfill, the landscape was contoured and reseeded, and the construction materials and equipment from the site were demobilized and removed.

Routine inspections of the project site were performed to check erosion and sedimentation controls and monitor restoration efforts. Inspections completed by Enbridge's contractor on April 18, 2025 identified that the vegetative cover along the project's access route is 40 percent. The project site has not yet met the site stabilization criteria in the Band's approval of 70% vegetative cover of native species. Additional observations and inspections will continue throughout 2025 to evaluate vegetation regrowth percent.

Based on the application materials provided by Enbridge 2023, an estimated 6.27 acres of temporary wetland fill was anticipated under the presumption that timber matting would be required across the 60-foot pipeline corridor. Based on that information, the Band issued a permit authorized Enbridge to incur 6.27 acres of wetland impact. Enbridge did not install construction matting across the entire pipeline corridor, using instead a primarily single-lane mat road, with several turnoffs.

Drone-based delineation of wetland disturbance conducted after the construction phase of the project was 4.18 acres, which is more than double compared to Enbridge's quantified wetland impacts of 1.83 acres. This difference between acreages appears to be caused by the project proponent's apparent focus on mapping wetland impacts based primarily on the construction matting area in the post-project survey, approximately a 15-foot corridor within the greater 60-foot pipeline corridor. The wetland disturbance expands outside of the construction mat area due to project traffic. Additionally, water quality affects beyond the 4.18 acres of wetland disturbance occurred due to the check valve project.

This project shows water quality impacts directly attributed by false assurance by the project proponent to the Band that it would minimize impacts along the access route by using temporary construction matting. Instead, the use of the matting and vehicle activity beyond the matting resulted in soil compaction, permanent wetland impacts, increased sedimentation in aquatic resources, the take of herptiles (snakes and turtles), and impacts to culturally important plants (e.g.

Large-Leaf Avens, Swamp Saxifrage). Construction matting was in place longer than project plans indicated, which increased the duration of the impacts created by the construction matting and project traffic for weeks longer than anticipated.

Wetlands along the matted construction route were drastically altered by the placement of the mats which lasted from 49 to 84 days. Wetlands were impacted by mud (a pollutant) pushed out from underneath the construction matting, and the sediments released as mud transferred by vehicle traffic are left on the matting and washed off into the nearby wetland. Wetlands were affected due to the displacement of soils that required regrading of the soils after the removal of the matting and soil sedimentation into adjacent parts of the wetland downstream of the construction zone.[177]

Aside from the construction matting causing soil dispersion, the matting also caused soil compaction. Greater than six inches of soil compaction was documented after the matting was removed. Soil compaction can lead to increased runoff and less infiltration as well as slow revegetation in areas and a change in the overall plant composition of a site.

The longer matting is left in a wetland and the more crossings made over it, the greater the impact on the wetland will be. This also impacts sedimentation off the construction sites and access routes and damages the aquatic communities (e.g., native plants) already present. The Band has documented severe impacts on vegetation from construction matting where the matting was installed for less than two months.

Amphibians and reptiles were also negatively impacted from the construction, with some direct take incidence documented and sedimentation into the aquatic habitats nearby the site affecting water quality and altering their suitability for aquatic and semi-aquatic organisms. Amphibians, can still be found in the wetland; however, water quality was affected, and the suitability of this wetland for any larval amphibians that may have hatched out in the spring is drastically reduced. This illustrates the impact that causes or may contribute to an adverse effect on human, plant, animal, or aquatic life, or in quantities that may interfere with the normal propagation, growth, and survival of indigenous aquatic biota.

ii. Denomie Creek Tributary Modification to an Engineered Riprap Channel

The Denomie Creek project is associated with Enbridge Line 5 pipeline within the Bad River Reservation boundaries (Latitude: 46°31'35.68"N / Longitude: 90°36'15.22"W). The construction phase was initiated at the beginning of 2020. This project is an example of similar regulated

[177] See Appendix 14, Figures 2 – 12.

activities and water quality effects that could be authorized by Corps associated with the construction, maintenance, or operation of the Enbridge Line 5 Reroute in watersheds adjacent to the Reservation and connected to tribal waters.

The original project that was conditionally approved by the Band consisted of regrading the slopes within an intermittent tributary and surrounding the pipeline exposure site, placement of bedding material beneath the pipeline, placement of fill adjacent and on top of the pipeline, reinforcement of the channel bottom within the watercourse, and construction of a stilling basin at the base of the intermittent tributary prior to the flow entering the other Denomie Creek tributary.

The Band conditionally approved the project under its Antidegradation Policy. The project proponent's design and implementation failure resulted in two emergency approvals being issued by the Band to prevent additional water quality impacts associated with more project failure. The Band's final antidegradation decision was partially approval and partially denial of water impacts. The same agenda included review of historic properties stop work order, discovery and results of hydrocarbon substances.

In August/September 2020, the Band followed up with the project proponent on compliance issues including some BMPs that were not properly maintained, excess sedimentation in the stilling basin, sinkholes/subsidence occurring along the south side of the backfilled pipeline, and presences of non-local beings (invasive species).

In October 2020, the project proponent's contractor planted the southern slope, a condition attached to the Band's water-related approvals of this project and is an example of a project-specific, site-specific condition derived to address water quality concerns and to minimize adverse environmental impacts.

Inspections of stormwater BMPs continue in 2025 as the project site has not yet met the site stabilization criteria in the Band's approval of 70% vegetative cover of native species. The project introduced invasive species or non-local beings to the site including white sweet clover (Melilotus alba), Canada thistle (Cirsium arvense), and birdsfoot trefoil (Lotus corniculatus). These species continue to remain at the site.

White sweet clover is a tall plant that grows vigorously, enabling it to shade out native vegetation and alternative plant community composition. A study exploring the impacts of white sweet clover on native seedling recruitment in floodplain habitat found that areas with white sweet clover had

approximately 50% greater mortality of native seedlings.[178] This species has also likely discharged biological materials into the unnamed tributary of Denomie Creek. A single plant can produce more than 100,000 seeds, which disperse by rain wash and stream flow, and have been proven to remain floating in violently agitated waters for over 15 minutes.[179] This population is situated in an area that slopes toward the unnamed tributary of Denomie Creek located at the base of the slope referred to as Slope 18 (where another tributary of Denomie Creek used to be prior to the construction project). Other invasive species, including spotted knapweed and tansy, were documented along the access trail in July 2021 by the Band during a routine inspection of the site.

Water quality impacts documented in Appendix 14 were amplified by the project design and implementation failures. For example, increased erosion and sedimentation occurred longer than necessary due to the extended duration of the construction phase (e.g., implementing emergency measures and redesigning the project) and due to some BMP maintenance/implementation issues. Another example is the repetitive "temporary" impacts on wetlands within the access routes and staging areas due to the numerous additional trips to this remote site that have occurred and continue to occur as the project had not met stabilization criteria as of May 21, 2025. This resulted in routine site visits over a five-year timeframe – instead of the typical one-year or less - to inspect the current conditions of the project site and restoration efforts.

The water quality effects described above were also amplified by the original construction of the pipeline and/or prior maintenance of pipeline corridor modifying hydrology (e.g., change in flow) in two tributaries east of this area, resulting in these two tributaries flowing west (instead of north) and contributing to the flow in the tributary that flows down the slope where the pipeline exposure occurred.

This case study is an example of associated water quality effects due to the inadequacy of accurate waterway and wetland mapping in the Bad River watershed and is also an example of historic abandonment or discarding of materials. This, coupled with the Corps' limited review and understanding of the water resources on site, contributed to more water quality impacts from the project activities than necessary to recover the pipeline. Abandoned or discarded contamination are public health impacts because they stay in the environment a long time, can bioaccumulate in the ecosystem, and because of the direct water connection to Treaty waters and communities lead to disproportionate risk exposures.

[178] Spellman & Wurtz 2011.
[179] Turkington, Cavers & Rempel 1978.

f. The Wisconsin CWA Section 401 Certification Provides Inadequate Protection of Groundwater-Surface Water Connections

Many wetlands and streams affected by the Line 5 Reroute are groundwater-dependent ecosystems. However, the Wisconsin certification addresses groundwater-surface interactions only in passing: "Any springs encountered in the ROW that cannot be avoided by construction must be characterized (i.e., location and flow rate) and documented prior to disturbance."[180]

Though this condition requires that they be restored to "pre-existing flow regimes," it imposes no obligation to preserve hydrologic integrity or maintain recharge-discharge dynamics. It treats springs and seeps as incidental features, subject only to post hoc documentation. By contrast, the Band's water quality standards require affirmative protection of hydrogeologic functions by including it in their defined Wetland use.[181]

For example, the Kakagon-Bad River Sloughs are part of an interconnected system where shallow groundwater flow sustains wild rice wetlands.[182] Disturbances to upgradient springs and seeps—such as blasting, trenching, directional drilling, or right-of-way clearing—will disrupt these dynamics, with downstream effects that Wisconsin's certification fails to prevent.

8. The Band Has Established Violations of its Water Quality Standards Caused by the Line 5 Reroute Impacts

"[T]he Clean Water Act establishes distinct roles for the Federal and State Governments."[183] States and Indian Tribes with approved programs take over responsibility for enforcing water quality standards within their borders.[184] The ability of the Band to enforce its own more stringent water quality standards is consistent with the legislative purpose and history of the Clean Water Act.

A State or Tribe's authority to grant or deny water quality certification is central to its ability to ensure the protection of water resources within its borders. The legislative history of section 401 confirms that Congress intended to give states [and tribes] power over the grant of federal permit authority for activities potentially affecting a state's or tribe's water quality.[185] In amendments to

[180] Final WQC, Condition IV.11.
[181] Bad River WQS § F.10.
[182] Bad River "Will Affect" Analysis at 69.
[183] *Jones v. Nat'l Marine Fisheries Serv.*, 741 F.3d 989, 996 (9th Cir. 2013).
[184] 33 U.S.C. § 1319(a).
[185] *United States v. Marathon Dev. Corp.*, 867 F.2d 96, 99 (1st Cir. 1989).

the Clean Water Act, Congress introduced language that would bolster state authority to protect their waters and ensure federally licensed or permitted projects would not "in fact become a source of pollution" either through "inadequate planning or otherwise."[186]

Under the new provision, instead of relying on the Federal government to ensure compliance with water quality standards, states would be granted the power to certify that there was reasonable assurance that federally licensed or permitted activities would meet water quality standards before such a Federal license or permit could be issued. Ultimately, Congress added this new provision as section 21(b) of the Water Quality Improvement Act of 1970.[187] Thereafter,"[i]n discussions surrounding the 1977 amendment to the CWA, Congress verified its intent to make the state requirements, as determined by the State [or tribe], the ultimate authority on water quality standards."[188]

The plain language of the CWA and the cases that have construed it provide that the Band is the primary resource agency responsible for water quality, and it is reasonable for the Corps to rely on the Band's determination of the effects of the Project on its water quality.[189] The Band has primary responsibility for establishing and enforcing water quality standards on waters within the Reservation.[190] That responsibility would be meaningless without the authority to determine that, as it has determined here, its standards have or will be been violated.[191]

[186] 115 Cong. Rec. 9011, 9030 (April 15, 1969).
[187] Pub. L. 91-224, 84 Stat. 91 (April 3, 1970).
[188] *Ohio v. United States Army Corps of Eng'rs*, 259 F. Supp. 3d 732, 749 (N.D. Ohio 2017).
[189] 33 C.F.R. § 320.4(d); *Ohio Valley Envtl. Coal., Inc. v. United States Army Corps of Eng'rs*, 883 F. Supp. 2d 627, 639 (S.D. W. Va. 2012).
[190] 33 U.S.C. § 1319(a), *PUD v Washington Dept. of Ecology*, 511 US 700, 725, 128 L Ed 2d 716, 114 S Ct 1900 (1994).
[191] *City of Tacoma, Wash. v Federal Energy Regulatory Commn.*, 460 F3d 53, 67, 373 (D.C. Cir. 2006) (the CWA "gives a primary role to states to block [construction] projects by imposing and enforcing water quality standards that are more stringent than applicable federal standards. . . FERC's role is limited to awaiting, and then deferring to, the final decision of the state. Otherwise, the state's power to block the project would be meaningless." [internal quotation marks omitted]).

9. The Band's Treaty Rights Will be Impermissibly Abrogated if a Permit is Issued

Band members offered testimony during the Hearing, in English and in Ojibwe, about the richness and diversity of the Band's reservation waters, and the uses of those waters by Band members.[192] Those activities have been carried out by Band members on the Band's homelands since time immemorial, and are protected by the Band's treaties.

The Band's water quality standards were enacted specifically to protect designated treaty-protected uses by Band members, and allow activities that preserve the Band's cultural heritage, including ceremonial uses, subsistence fishing, hunting, and harvesting for medicinal uses. For example, the Band's water quality standards include the following designated uses:

> 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.
>
> 2. Wild Rice (W1). Supports or has the potential to support wild rice habitat for sustainable growth and safe consumption.
>
> 3. Wildlife (W2). Supports the proper habitat for propagation of wildlife, which will allow the safe ingestion of any wildlife resources that provide a dietary food source for Tribal subsistence.
>
> . . .
>
> 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.[193]

The United States, acting through the Executive Branch, owes a fiduciary duty to the Band to protect the Band's treaty rights, lands, assets, and resources. "In carrying out its fiduciary duty, it

[192] See translated transcripts of the Ojibwe testimony, and additional testimony of Band members at **Appendix 17**.
[193] Bad River WQS §§ F(1) – (3), F(10).

is the government's, and subsequently the Corps', responsibility to ensure that Indian treaty rights are given full effect."[194]

The duty extends to the Corps in the exercise of its permit decisions.[195] Thus, the Corps has a legal duty, independent of the Clean Water Act, its implementing regulations, and the Corps' procedural rules for issuing permits, to look at and evaluate any impacts its actions have on the Band's treaty rights.

In 1942, the United States characterized its fiduciary duty to tribes as a "moral obligation[] of the highest responsibility and trust" to protect the Indians' treaty rights.[196] That duty is part of the Corps' responsibility here even though it is not articulated in the CWA or its implementing regulations. That issue has been settled by the federal courts for nearly 40 years.[197] The Line 5 Reroute will cause adverse impacts to the Band's water quality requirements for the protection of treaty-protected food, fresh water, plants, medicines, or other water-dependent resource uses.

The Corps cannot make a permitting decision that would extinguish part of the Band's treaty rights. Only Congress can extinguish treaty rights. Because the Line 5 Reroute will violate the Band's water quality standards and impact the treaty-protected used of the Band's waters by its members, the Corps' fiduciary obligation to the Band bars the issuance of the permit here.

10. The EPA's Evaluation and Recommendations Are Not Persuasive and Do Not Warrant Deference

The EPA's role in the 401(a)(2) process is to evaluate the Band's objection and provide the Corps with its recommendations. It did so at the Public Hearing and in writing.[198] The Band strongly disagrees with the EPA. The EPA's recommendations are not dispositive, and are not entitled to

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[194] *Northwest Sea Farms v. United States Army Corps of Engineers*, 931 F. Supp. 1515, 1520 (W.D. Wash. 1996); *see, also, Seminole Nation v. United States*, 316 U.S. 286, 296-97, 86 L. Ed. 1480, 62 S. Ct. 1049 (1942) (finding that the United States owes the highest fiduciary duty to protect Indian contract rights as embodied by treaties).
[195] *See e.g. Muckleshoot Indian Tribe v. Hall*, 698 F. Supp. 1504, 1523 (W.D. Wash. 1988) (granting an injunction against the construction of a marina in consideration of the effect upon Indian treaty rights).
[196] *Seminole Nation*, 316 U.S. at 297.
[197] *Muckleshoot Indian Tribe*, 698 F. Supp. at 1510-11.
[198] 2025-05 Clean Water Act Section 401(a)(2) Evaluation and Recommendations with Respect to the Bad River Band of Lake Superior Chippewa's Objection to The Proposed Enbridge Energy Wisconsin Line 5 Relocation Project.

more weight in the Corps' analysis than the Band's. Indeed, for the reasons explained below and elsewhere in this letter, the EPA's recommendations are unsupported by the technical evidence and testimony provided by the Band, and directly contrary to its position and recommendations in evaluating the objection of the Fond du Lac Band's objection to the NorthMet Mine project in 2022.[199]

The EPA determined here that "the information provided in support of the Band's Objection Letter and the information contained in the other documents reviewed by the EPA do not demonstrate that discharges from the project will affect the quality of the Band's waters…". This was a reversal of EPA's prior opinion in an April 2022 letter to the Corps, which stated that the Project, as currently proposed, "will result in substantial and unacceptable adverse impacts" on the Bad River and the Kakagon-Bad River Sloughs wetland complex. The basis of the reversal is insufficiently explained. An administrative agency is not permitted to change course without explaining why it is doing so.[200]

The information provided by the Band included quantitative demonstrations of the magnitude and downstream severity of impacts, as well as providing evidence of analogous impacts that took place during the recent Enbridge Line 3 construction activities in Minnesota under similar conditions using similar methods. EPA simply discounted – or ignored - this evidence.

EPA's determination stated that information it had reviewed, including information provided by the Band, did not provide data, studies, modeling and analyses quantifying the impacts of distance from any given discharge point to water quality on the Reservation. Yet, it also conceded that the Band had provided the EPA, but the EPA had chosen not to review, data, studies, modeling and analyses.

The EPA's determination shows an inappropriate reliance on quantitative analyses that were performed by Enbridge consultants (e.g., RPS analyses using the SSFATE model) based on overly favorable assumptions, termed "representative scenarios", about release amounts and streamflow magnitudes. RPS's modeling is flawed: it failed to assess impacts of inadvertent returns of realistic magnitudes on small watercourses, including those that could be reasonably impacted near the southwest corner of the Reservation. These include sites where HDDs are proposed as little as

[199] April 29, 2022 *Evaluation and Recommendations With respect to the Fond du Lac Band's Objection to the Proposed Clean Water Act Section 404 Permit for the NorthMet Mine Project*.
[200] *Capital Cities/ABC v. FCC*, 29 F.3d 309, 313 (7th Cir. 1994).

1.2 miles upstream of the Reservation boundary on the Brunsweiler River, Trout Brook, and unnamed drainages at the State Highway 13 HDD.[201]

Releases similar to those reported during Line 3 construction of up to 9,000 gallons (~1,200 cubic feet) would have obvious impacts that would persist far downstream on streams including the Brunsweiler River that routinely flow at less than 10 cubic feet per second. Discharge of 1,200 cubic feet of drilling mud into a stream flowing at 10 cfs would be the equivalent of 120 seconds or two full minutes of flow. Although the full 1,200 gallons would not be discharged instantaneously, the ability of such a small stream to assimilate and dilute this volume of mud by the time it would reach the Reservation boundary is minimal.[202]

In addition to impacts from inadvertent returns, construction-related erosion impacts in this area will likely be much higher than reported. Pre-existing elevated erosion risks from mass wasting in the Marengo River mainstem and tributaries are associated with elevated landslide potential and other factors in areas with valley slopes of greater than 15%.[203]

The EPA critique that downstream impacts were not adequately documented to illustrate the relevance of case study results to Line 5 Reroute site impacts is subjective and does not negate the reality of such effects. Field observations to support the assertion of downstream and downgradient impacts have been submitted separately by the Band's experts. As discussed elsewhere in this letter, post-construction mitigation of groundwater impacts of these construction-related activities is not specified in sufficient detail in the permit application materials or permit conditions to allow for more quantitative evaluation.[204]

As has been discussed elsewhere, it is likely that eroded sediments from stream crossings and stream-perpendicular trenches on steep slopes will enhance sediment delivery to streams and impact downstream turbidity and fluvial geomorphology. What the EPA failed to address in its determination was flow alteration and modifications of hydrology. Capturing of flow by the trench and permeable backfill noted for the Denomie Creek area are directly relevant to potential flow modifications upstream but close to Reservation boundaries, especially in Line 5 Reroute corridor

[201] Appendix 11 at 16.
[202] *Id*.
[203] *Id*., citing Marengo River Watershed Partnership Project Watershed Action Plan: Ten Year Revision, 2022-2032.
[204] *Id*. at 17-18.

segments near the southwest corner of the Reservation (Marengo River tributaries) and the southeast corner (Tyler Forks and Potato River tributaries).[205]

Flow diversion from one upland stream or wetland outlet to another will result in increased flow to one stream and decreased flow to another. Such a flow modification would violate Band regulations that govern modifications of flow.[206] The EPA also ignores the breaching of artesian aquifers by trenching activities, including sheet pile driving and removal, despite having been a significant source of flow alteration in prior Enbridge pipeline projects, including the recent Line 3 replacement in Minnesota.[207]

Additionally, HDD crossings also have a high potential to encounter artesian conditions. In both cases, changes to downstream flow are likely, which is included as part of the Band's water quality criteria regarding hydrology, flow, and water quantity. Having a contractor with experience in confined aquifer breaches on standby (WDNR Condition 6) will not prevent breaches. It may also be insufficient for addressing breaches in a timely manner, as evidenced by the largest Line 3 aquifer breach, which took 12 months to mitigate, releasing more than 25 million gallons of groundwater to streams in the interim.[208]

In addition to flow modifications associated with blasting, which the EPA does not consider in detail, chemical releases associated with mineralized bedrock that will be disturbed by blasting, as well as mercury mobilization from wetlands with modified hydrology and redox conditions, are significant concerns related to blasting. Neither concern has been substantially considered nor addressed by Enbridge in their blasting plans and related documents. Blasting in at least 17 waterbodies will have permanent impacts on their hydrology that are unlikely to be substantially mitigated by trench breakers, replacement of dredged soil, or revegetation.[209]

As the testimony and evidence offered during the Hearing and this letter demonstrate, the EPA's recommendations with respect to the Line 5 Reroute conflict with its April 29, 2022 *Evaluation and Recommendations With respect to the Fond du Lac Band's Objection to the Proposed Clean Water Act Section 404 Permit for the NorthMet Mine Project*. There, the EPA recommended against reissuing the 404 permit to the NorthMet project based on remarkably similar circumstances: that no conditions could be imposed on the project sufficient to protect from mercury mobilization, methylation, and export at levels that would exceed the Band's water quality

[205] *Id*. at 18.
[206] Sect. E.3.i.
[207] Appendix 11, at 18.
[208] *Id*.
[209] *Id*.

requirements given the project design and discharges outside the CWA Section 404 permitted activities.

In its April 29, 2022 Evaluation, the EPA concluded:

> The [Fond du Lac] Band provides analysis and documentation in its objection that the wetlands surrounding the NorthMet project site are reservoirs of mercury and that project activities will result in the mobilization of mercury and sulfate. EPA agrees and notes that changes in hydrology are likely to result in mobilization of mercury and sulfate and that disturbing the wetlands via draining could result in mobilization of methylmercury downstream. As a result, EPA's evaluation is that altering the hydrology of the wetlands surrounding the NorthMet project site has a strong likelihood to contribute to THg and MeHg downstream in the St. Louis River and within the [Fond du Lac] Band's waters.[210]

The proposed NorthMet project was located 70 miles upstream of the Fond du Lac Reservation. The EPA agreed with the Fond du Lac Band that changes in hydrology and disturbances of wetlands were likely to result in the mobilization of methylmercury 70 miles downstream on the Fond du Lac Reservation. Yet, faced with almost identical testimony and evidence regarding changes in hydrology as close as 0.95 river miles upstream of the Bad River Band's Reservation, the EPA concluded such changes were not likely to result in impacts that reached the Bad River Band's Reservation.

The EPA's inconsistent application of agency standards to situations that are so factually and legally similar is arbitrary and capricious. Reviewing courts have uniformly agreed, calling such conduct a "hallmark of arbitrary or capricious agency action."[211]

As this letter demonstrates, the modeling provided by Enbridge is flawed, and therefore the EPA's reliance on that modeling is erroneous. As a consequence, EPA's determination and recommendation that the permit should be issued is arbitrary and capricious, and contrary to law. It is not entitled to a presumption of validity and should be afforded little weight.

[210] Evaluation, *supra* note 198, at 29.
[211] *Henry Ford Health Sys. v. Shalala*, 233 F.3d 907, 912 (6th Cir. 2000).

11. The "Energy Emergency" Executive Order Does Not Affect the CWA's Substantive Requirements

On January 20, 2025, President Trump issued Executive Order 14156 ("EO 14156"), which purported to proclaim a national energy emergency.[212] Section 4 directs the Corps to utilize emergency permitting procedures to expedite the review and approval of projects subject to the energy emergency executive order.[213] In response to this directive, the St. Paul District developed emergency procedures pursuant to 33 C.F.R. § 325.2(e)(4) ("Section 325.2(e)(4)"), which it published on April 10, 2025.[214] Thereafter, the Corps listed the Wisconsin Line 5 Reroute Project on its list of emergency projects.

Even if the Line 5 Reroute is eligible for processing under the emergency procedures, the Corps must still comply with the substantive provisions of the CWA, including completing the CWA 401(a)(2) process and considering all of the evidence submitted by the Band.

12. Conclusion

The Bad River Band determined that discharges from the Proposed Enbridge Line 5 Reroute will violate the Band's water quality requirements and standards, and no conditions could be imposed on the permit that would prevent such violation. By its plain terms, the CWA prohibits the issuance of the Section 404 Permit.

In addition to the requirements of the CWA, the Corps also is bound by the fiduciary duty it owes to the Band to protect the Band's treaty-protected food, fresh water, plants, medicines, and other water-dependent resources. Authorizing the Enbridge Line 5 Reroute would breach the Corps' fiduciary duty to the Band.

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

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[212] Exec. Order No. 14,156, *Declaring a National Energy Emergency*, 90 Fed. Reg. 8433 (Jan. 20, 2025).
[213] *Id*. at § 4.
[214] St. Paul Dist., U.S. Army Corps of Eng'rs, *Special Public Notice: Emergency Processing Procedures for Activities Subject to Executive Order 14156 (National Energy Emergency) for Minnesota and Wisconsin* (April 10, 2025), *available at* https://www.mvp.usace.army.mil/Portals/57/docs/regulatory/Special%20Notices/FINAL%20SPN%20Emergency%20Procedures%20APR%202025.pdf?ver=laOVeyZl6W2v_fQK4hRvAA%3d%3d.

230.10(b) of the CWA regulations governing issuance of Section 404 permits (40 C.F.R. Part 230), and there are not adequate protective permit conditions nor corrective actions that can be imposed based on the Project as designed to prevent these violations.

Best regards,

Connie Sue Martin

Appendices 1-17

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