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

PREPARED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY

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Introduction

On January 6, 2022, the U.S. Army Corps of Engineers St. Paul District (the Corps) issued a public notice announcing its receipt of a permit application from Enbridge Energy, Limited Partnership (Enbridge) pursuant to Section 10 of the Rivers and Harbors Act (section 10) and Section 404 of the Clean Water Act (CWA).[1] Enbridge is proposing a project (EL5) to relocate a section of the Line 5 pipeline that currently runs through the Bad River Band of Lake Superior Chippewa (Band) Reservation. According to the *Draft Environmental Assessment, Clean Water Act Section 404(b)(1) Guidelines Evaluation, and Public Interest Review*[2] (also known as the Draft Combined Decision Document [DCDD], See Appendix C), at the request of Enbridge, the Corps presumed that all wetlands and non-wetland waters are jurisdictional under Section 404 of the CWA and regulated construction activities proposed by Enbridge include temporary and permanent discharges of dredged or fill material into waters of the United States (WOTUS). The EL5 project involves the permanent discharge of fill material into 0.02 acre of WOTUS and temporary discharges of dredged or fill material into 101.1 acres of wetlands and 0.2 acres of non-wetland WOTUS.[3] The DCDD states once construction activities resulting in temporary discharges to wetlands are complete, 33.92 acres of scrub-shrub and forested wetlands would be permanently converted to emergent wetlands and maintained within the 50-foot-wide permanent maintenance corridor and within the 30-foot-wide corridor over the centerline of the pipeline at horizontal directional drilling (HDD) crossings, and the remainder of the 67.18 acres of wetlands within the temporary construction workspace would be allowed to naturally return to pre-construction wetland type once construction is complete.[4] The proposed project route begins 4.5 miles west of the western boundary of the Reservation near the intersection of State Highways 137 and 112 in Ashland County, Wisconsin and ends 3.3 miles east of the eastern border of the Reservation near the intersection of US Highway 2 and State Highway 169 in Iron County, Wisconsin.[5] Activities identified in the proposed project's CWA 404 permit application, including pipeline installation, blasting, construction, and refueling/fuel storage operations, are proposed to result in discharges of fill material to more than 500 wetlands and 57 waterways along the proposed route.[6] Approximately 56 of the 57 waterways are upstream of and, based on the

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[1] U.S. Army Corps of Engineers St. Paul District. (2022, January 6). *Public Notice for Proposed Enbridge Line 5 Reroute Project in Ashland and Iron Counties, Wisconsin.* https://www.mvp.usace.army.mil/Portals/57/docs/regulatory/Enbridge/EnbridgeLine5/2020000260SP.pdf

[2] Id.

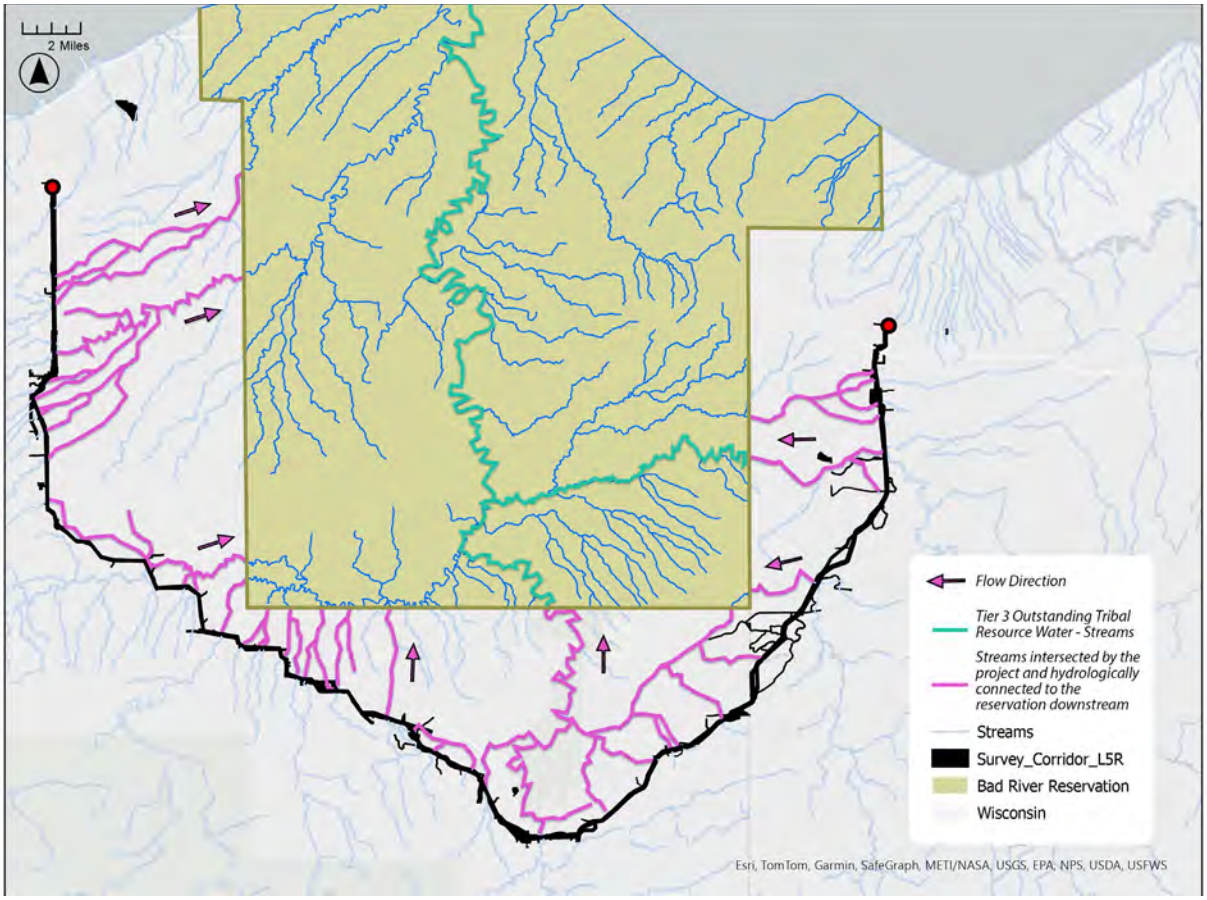
[3] Id.

[4] Id.

[5] Enbridge. (February 2020). Line 5 Wisconsin Segment Relocation Water Resources Application for Project Permits. https://www.mvp.usace.army.mil/Enbridge_Line5-WI/.

[6] U.S. Army Corps of Engineers St. Paul District. (2024, May 20). *Draft Environmental Assessment, Clean Water Act Section 404(b)(1) Guidelines Evaluation, and Public Interest Review.* Enbridge Line 5 Wisconsin Segment Relocation Project, Appendix 15 – Wetland and Waterbody Crossing Table. https://www.mvp.usace.army.mil/Portals/57/docs/regulatory/Enbridge/EnbridgeLine5/15.%20Wetland%20Waterbody%20Crossing%20Table%2020240228.pdf?ver=ltD6ZWhzhnuxCh8F6J2MpQ%3d%3d.

U.S. Environmental Protection Agency's (the EPA) evaluation using the National Hydrography Dataset[7], appear to be hydrologically connected to the Band's Reservation waters. The following map created by the EPA depicts a portion of the waters intersected by the project and their hydrological connection with downstream Reservation waters.



Pursuant to CWA Section 401(a)(1), the Corps received a water quality certification (WQC) with conditions from the Wisconsin Department of Natural Resources (WDNR) for the project (WQC, see Appendix D). Pursuant to CWA Section 401(a)(2), the Corps notified the EPA on November 15, 2024, that it received the certification for the project.

On December 13, 2024, the EPA notified the Band[8] that the discharges associated with the project may affect the quality of waters within its jurisdiction in accordance with CWA Section 401(a)(2) (see Appendix E). The notification from the EPA also informed the Band that if it determined that discharges associated with the project will affect the quality of its waters so as to violate any of its water quality requirements, the Band may notify the Corps and the

[7] U.S. Geological Survey. (2012). National Hydrography Dataset Plus, Edition 2.10. Accessed 10 April 2025, at https://www.epa.gov/waterdata/nhdplus-national-hydrography-dataset-plus.

[8] In accordance with CWA Section 518(e), the EPA granted the Band Treatment as a State for purposes of CWA Section 303(c) and CWA Section 401 in June 2009.

EPA in writing, within 60 days after receipt of the notification, that it objects to the issuance of the permit and request that the Corps hold a public hearing on the objection.

On February 11, 2025, the Band sent a letter, (the Objection Letter), notifying the EPA and the Corps that "pursuant to CWA Section 401(a)(2), 33 U.S.C. Section 1341(a)(2), the Band has determined the discharges related to the project will affect the quality of the Band's waters (aquatic resources, including wetlands) so as to violate the Band's water quality requirements" (see Appendix A). The Band objected to the project and requested a public hearing under CWA Section 401(a)(2).

On April 11, 2025, the EPA met with Enbridge and on April 22, 2025, the EPA met with the Band. The purpose of these meetings was for the EPA to generally explain the information considered and analysis used by the EPA in determining that discharges from the EL5 project may affect the Band's water quality and to allow Enbridge and the Band to convey information or clarify any information shared previously for the EPA to consider. At the EPA's meeting with Enbridge, Enbridge did not present any new information but did state that it had previously provided both the EPA and the Corps with modeling data that Enbridge asserts demonstrates that discharges from the project would have no discernible impact on the Band's waters. At the EPA's meeting with the Band, the Band did not present any new information but did summarize and reiterate the concerns it raised in the Objection Letter. The Band also requested clarification on whether the EPA had received updated documents requested in the EPA's August 23, 2024, comment letter to the St. Paul District Corps on the DCDD. On May 6, 2025, the Band submitted additional information to the EPA for its consideration in evaluating the Band's Objection Letter including data on the water quality conditions of the Band's waters, literature on the effectiveness of best management practices, and a technical memorandum dated May 6, 2025 titled *Evaluation of Impacts of Line 5 Wisconsin Relocation Project on Hydrology and Water Quality at the Bad River Band Reservation* from Wright Waters Engineers, which evaluates two hydrologic models.

Pursuant to CWA Section 401(a)(2), the EPA prepared this document. As explained below, the EPA's conclusion is 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 so as to violate the Band's water quality requirements and so the EPA has no recommendations to provide under CWA Section 401(a)(2) as to conditions that may be necessary to ensure compliance with applicable water quality requirements. The Corps scheduled a public hearing on the Band's objections for May 13 and 14, 2025.[9] The EPA will submit this document to the Corps at that hearing.

[9] U.S. Army Corps of Engineers St. Paul District. (2025, April 11). *Wisconsin Line 5 401a2 Public Hearing*. https://www.mvp.usace.army.mil/Missions/Regulatory/Public-Notices/Article/4152577/wisconsin-line-5-401a2-public-hearing/.

CWA 401(a)(2) Process

The EPA interprets its role in providing evaluations and any recommendations on objections under CWA Section 401(a)(2) as that of an objective and neutral evaluator providing recommendations to the Corps based upon its expert, technical analysis of the record.[10] After the EPA provides its evaluation and any recommendations to the Corps at the public hearing, the Corps is then required to consider the Band's objection, the EPA's evaluation of that objection and any recommendations, as well as any additional evidence, if any, presented to the Corps at the hearing, and "shall condition such license or permit in such manner as may be necessary to insure compliance with [the Band's] applicable water quality requirements".[11]

Information Considered by the EPA

In evaluating the Band's Objection Letter, the EPA considered the following documents:

Table 1. Documents considered by EPA in evaluating the Band's Objection Letter, which are either included as Appendices to this document or links in footnotes.

Wisconsin Department of Natural Resources	Corps/EPA	Bad River Band	Enbridge
Wisconsin State Water Quality Standards, promulgated April 26, 2024[12]	Corps of Engineers public notice posting for Enbridge Line 5, dated January 6, 2022, and all subsequent updates[13]	Band's Water Quality Standards dated July 6, 2011 (Appendix B)	Environmental Construction Plan dated October 2024 (Appendix F)
Wisconsin DNR Final Environmental Impact Statement for Enbridge Line 5, dated September 2024[14]	EPA CWA 404 comment letter, dated March 6, 2022, response to the Corps' public notice the Line 5 reroute (Appendix E)	Email correspondence with the Corps on EL5 between 2020-2024, where EPA was copied (Appendix B)	CWA section 404 permit application dated February 7, 2020, and subsequent updates[15]

[10] See 88 Fed. Reg. 66558, 66650 (September 27, 2023).
[11] 33 U.S.C. 1341(a)(2)
[12] U.S. Environmental Protection Agency. (2024, April 26). *Water Quality Standards Regulations: Wisconsin*. https://www.epa.gov/wqs-tech/water-quality-standards-regulations-wisconsin#state
[13] U.S. Army Corps of Engineers St. Paul District. *Enbridge_Line5-WI.* Retrieved April 30, 2024, from https://www.mvp.usace.army.mil/Enbridge_Line5-WI/
[14] Wisconsin Department of Natural Resources. (2024, September). *Final Environmental Impact Statement: Proposed Enbridge Line 5 Relocation Project.* https://dnr.wisconsin.gov/sites/default/files/topic/EIA/Enbridge/EL5_FinalEIS.pdf
[15] U.S. Army Corps of Engineers St. Paul District. *Enbridge_Line5-WI.* Retrieved April 30, 2024, from https://www.mvp.usace.army.mil/Enbridge_Line5-WI/

Wisconsin DNR CWA 401 Water Quality Certification for Enbridge Line 5 dated November 14, 2024 (Appendix D)	Corps Draft Environmental Assessment, Clean Water Act Section 404 (b)(1) Guidelines Evaluation, and Public Interest Review dated May 20, 2024 (Appendix C)	Bad River Band Objection Letter and attachments dated February 11, 2025 (Appendix A)	

The EPA's evaluation was also informed by engagement with the Corps, Enbridge, WDNR and the Band prior to the EPA's "may affect" determination as well as the information conveyed by both Bad River and Enbridge in the meetings with the EPA in April 2025 as discussed above.

Evaluation of the Band's Objection

Throughout its Objection Letter, the Band asserts that discharges associated with construction-related activities that would be authorized by the proposed permit will violate the Band's water quality requirements, which include the Band's federally approved water quality standards (see Appendix B) and Treaty rights. The EPA notes that no construction activities authorized by the proposed permit would occur on the Band's Reservation as illustrated by the map above and that any direct impacts from discharges that occur will be to waters within the State of Wisconsin and be covered by the conditions contained in Wisconsin's WQC (WQC, see Appendix D). The EPA's evaluation of the Band's assertions regarding discharges that violate the Band's water quality requirements are limited to impacts to water quality within the Reservation boundaries.[16]

The Objection Letter identifies concerns about discharges associated with four major categories of activities: construction matting/site access, trenching, blasting, and HDD/Direct Drilling (DD). The results of the EPA's evaluation are presented below in five subsections: a subsection with an overarching evaluation and then four subsections focused specifically on each type of discharge identified in the Objection Letter.

Following the EPA's determination that a discharge may affect the quality of a neighboring jurisdiction's waters, CWA Section 401(a)(2) of the CWA requires that if the neighboring jurisdiction objects to issuance of a permit for a proposed discharge and requests a public hearing, the "permitting agency shall hold such a hearing".[17] CWA Section 401(a)(2) also requires that the EPA "shall at such hearing submit [its] evaluation and recommendations

[16] The Band's Objection Letter also addresses waters in treaty-reserved ceded territories outside of the Band's Reservation boundaries. However, in accordance with CWA Section 518(e)(2), the Band's Treatment as a State status for Section 401 of the Clean Water Act applies only within the borders of the Band's Reservation. As a result, the EPA limited its evaluation of the Band's objection to evaluating discharges to the waters within the borders of the Band's Reservation. The Band holds judicially affirmed treaty rights, including off-reservation hunting, fishing, and gathering rights, pursuant to several treaties, including Treaty with the Chippewa, 7 Stat. 536 (1837), Treaty with the Chippewa, 7 Stat. 591 (1842), and Treaty with the Chippewa 10 Stat. 1109 (1854).

[17] 33 U.S.C. 1341(a)(2)

with respect to any such objection".[18] On April 11, 2025, the Corps provided public notice scheduling the public hearing requested by the Band on May 13, 2025. EPA is scheduled to present its evaluation and recommendation at 08:15 am on May 13, 2025, as stipulated in the public notice.[19]

The EPA reviewed the additional information that the Band provided on May 6, 2025, but did not have sufficient time before the scheduled hearing on May 13 to analyze, draw conclusions, or form recommendations regarding this new information. Accordingly, the EPA's conclusions are based upon its analysis of the information set forth above in Table 1.

The Corps' Engineer Research and Development Center previously provided technical review and evaluation of existing RPS Group, Inc. modeling and analysis information associated with the EL5 project described in more detail in Section 1 below. A similar analysis may prove useful to the Corps in evaluating the new information before making a final permitting decision.

1. Overarching evaluation regarding all four types of discharges

In its Objection Letter, the Band asserts that the discharges proposed to be authorized under a CWA 404 permit for the project that will occur in the project area will make their way to the Band's waters in amounts that will violate the Band's water quality requirements. However, the EPA's evaluation was limited by the lack of information provided by the Band in support of its Objection Letter and contained in the other documents reviewed by EPA substantiating discharges associated with the project (including any pollutants in such discharges) in any of the four categories will reach the Band's waters in amounts that would result in a violation of the Band's water quality requirements. Information reviewed by EPA, 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, evaluating the likelihood of discharges (including discharges of pollutants) traveling from groundwater to surface waters and then to the Reservation boundary, predicting quantities of discharges (and quantities of pollutants in such discharges), comparing predicted changes due to discharges (including changes in pollutant amounts resulting from such discharge) against background condition and natural variability, evaluating potential influences from other impacts in the landscape on water quantity and quality, and demonstrating how the impacts from the discharges (including impacts on pollutant amounts) adversely affect water quality in the Band's waters so as to violate water quality requirements.

The only information in the documents reviewed by the EPA that specifically addresses the question of whether discharges associated with the project (including pollutants in such discharges) will reach the Band's waters is sediment modeling information from Enbridge asserting that discharges associated with the project will not have an impact on water quality at

[18] Id.

[19] https://www.mvp.usace.army.mil/Enbridge_Line5-WI/

the Band's Reservation boundary so as to violate water quality requirements. Specifically, as part of its CWA 404 permit application, Enbridge submitted to the Corps a Sediment Discharge Modeling Report prepared by RPS Group, Inc., an environmental consulting group (See Appendix F - Sediment Discharge Modeling Report). The report states that "Sediment releases were modeled spanning a range of representative locations, environmental conditions, and types and volumes of release. Together, these modeling assessments convey an understanding of the range of potential effects from the Relocation's installation" (p. vi). According to the report on pages 3 and 4,

> *To assess the potential for impacts to watercourses from pipeline installation and construction activities, RPS developed a modeling approach that used RPS' SSFATE sediment dispersion model to assess the movement and behavior of suspended sediments in the water column for a set of representative scenarios (Table 1-1). The scenarios reflected representative ranges of river width and depth, sediment/substrate type, and river flow conditions for the watercourses with proposed crossings. The simulations were used to assess*:
>
> - *Downstream movement and timing of TSS* [Total Suspended Solids] *above background value,*
> - *Peak TSS concentrations above background value in the water column,*
> - *Duration of exposure, and*
> - *Depositional thickness.*
>
> *The results of the suite of modeling scenarios provided an understanding of the range of effects from a planned, dry trenching installation and effects from an unlikely inadvertent release during the pipeline installation process, for any of the route alternatives. The intent was to summarize the potential levels of TSS increases, relative to background values, that could occur within the water column, the duration and downstream distance over which these effects are likely, and the depositional thickness of released sediments on the river bottom.*

According to the report, no modeling scenario for either trenched or HDD crossings would result in TSS levels exceeding 19 mg/L at locations greater than approximately 1,000 meters (0.62 miles) downstream, including any portion of the Reservation (p. vi). The Sediment Discharge Modeling Report derived the TSS threshold of 19 mg/L using paired TSS and turbidity data from the Bad River to identify the TSS level that correlates to the Band's water quality standard for turbidity (p. 27). The downstream distance from the watercourses crossed by the project to the Reservation boundary ranges from 1.3 miles to 14.9 miles. (p. 3, footnote 2). Specifically, RPS Group, Inc. modeled TSS impacts from open trench techniques based on several scenarios in small and medium watercourses. In the scenario with the highest modeled TSS impacts (low flow, fine substrate, medium watercourse), modeling results indicated that TSS levels are expected to decrease down to 3-7 mg/L 1,000 meters downstream of the activity and would be even lower at the closest crossing to the Reservation boundary, as depicted in Figures 1 & 2 below) (pp. 53, 73). RPS Group, Inc. also modeled TSS impacts from HDD Inadvertent Releases

(IRs) as far as 2,000 meters (1.24 miles) downstream in larger watercourses under several scenarios. The results indicated that predicted TSS levels under all scenarios were below the 19 mg/L by the time suspended sediments reached the Reservation boundary (p. 74). Further, the tables and figures in the report predict TSS levels of <11 mg/L and <23 mg/L at 1,000 meters and those levels were predicted to be substantially lower at the closest Reservation boundary (see Figures 3 & 4). In summary, given that the proposed route crosses the various watercourses in the project area at distances between 1.3 and 14.9 miles upstream of the Band's waters, modeling results predicted TSS concentrations to be well below the calculated threshold of 19 mg/L by the time any suspended sediments from the trenching installations or modeled IR on the Bad River reached the Reservation boundary (p. viii). The model results also correlate with studies, referenced by RPS in the modeling report, which evaluated TSS values downstream of dry trenched crossings, concluding that TSS would be of the same magnitude or less than the natural variability during periods of time with higher TSS and below natural TSS concentrations associated with spring floods and summer storm events (p. 28).

The model's TSS predictions at 1000 meters distance downstream of proposed construction activities were consistently below background condition of 20 mg/L as measured from 3 USGS gages on the White River and Bad River in June – August 2022, when the construction phase of the pipeline is likely to occur (p. 26, 72). The proposed installation activities would be expected to have a lesser magnitude and more brief effect on TSS in the water column than storm-related events (p. 72). As such, the EPA has determined that the predicted model results of <1 mg/L and 3-7mg/L for small and medium watercourses, respectively, and <11 mg/L and <23mg/L for large watercourses at 1,000 meters, which is at minimum another 500 meters (0.31 miles) or more from the Band's waters, suggest that any discharges from the project would be indistinguishable from background or natural variability during similar time periods at the Reservation boundary.

Figure 1: TSS Impacts in Small Watercourses from RPS Model

Table 5-1: Maximum predicted TSS concentrations as a function of distance from the source for all small watercourse scenarios.

Distance From Upstream Dam (m)	Maximum TSS (mg/L) – Small Watercourse					
	Low Flow		Average Flow		High Flow	
	Coarse	Fine	Coarse	Fine	Coarse	Fine
0-5	18.6	46	34	35	24	29
50	<1	39	<1	33	24	18
100	<1	39	<1	27	23	14
250	<1	30	<1	25	21	15
500	<1	30	<1	20	19	12
1,000	<1	<1	<1	<1	<1	<1

Figure 2: TSS Impacts in Medium Watercourses from RPS Model

Table 5-6: Maximum predicted TSS concentrations as a function of distance from the source for all medium watercourse scenarios.

Distance From Upstream Dam (m)	Maximum TSS (mg/L) – Medium Watercourse					
	Low Flow		Average Flow		High Flow	
	Coarse	Fine	Coarse	Fine	Coarse	Fine
0-5	127	132	125	128	117	116
50	6	16	6	8	12	9
100	4	15	1	5	9	4
250	2	11	<1	5	6	3
500	1	7	<1	5	5	3
1,000	1	7	<1	4	4	3

Figure 3: TSS Impacts in Large Watercourses from RPS Model

Table 5-11: Maximum predicted concentration as a function of distance for all large watercourse scenarios.

Distance From Upstream Dam (m)	Maximum TSS (mg/L) - Large Watercourse					
	Low Flow		Average Flow		High Flow	
	Pilot Hole	Final Ream	Pilot Hole	Final Ream	Pilot Hole	Final Ream
0-5	28,500	57,200	20,729	41,558	20,462	41,023
50	1,085	2,090	587	1,121	207	389
100	427	682	306	620	140	191
250	275	567	93	189	65	119
500	129	338	17	34	38	75
1,000	<1	<1	<1	<1	11	23
2,000	<1	<1	<1	<1	<1	<1

Figure 4: TSS concentrations in a Large Watercourse under High Flow conditions (Final Ream scenario).

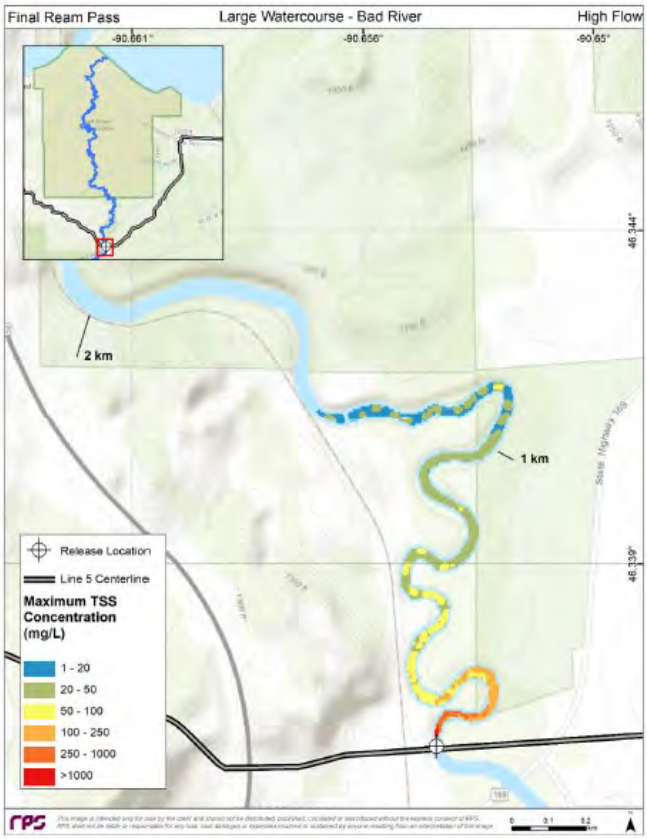


Figure 5-10. Maximum TSS concentrations above background predicted at any time in the simulation for the Final Ream scenario in high flow conditions. Downstream distance is provided on the map for reference (1 km = 0.62 miles; 2 km = 1.24 miles).

The Band asserts that the RPS model has several shortcomings as set forth in Attachment C to the Band's DCDD comment letter and in the Objection Letter (See Appendix A, p. 21). The Band asserts that the Band's consultants modeled impacts from IRs at different volumes and found that the 10,000 gallon and 30,000-gallon modeled IR releases are projected to exceed the allowable threshold for increased turbidity under the Band's water quality standards (See Appendix A, pp. 24, 30, 33). The Band indicated "this is in-part due to the short distance between the HDD and the boundary of the Reservation (Map 7), the sufficiently high mean annual flow rate for the river, and the corresponding flow depth." (See Appendix A, p. 24).

The Band also presented information on a model analyzing impacts to stream discharge due to changes in landscape cover. The Band asserts throughout the Objection Letter that "consulting experts modeled that the conversion of landscape to grass/herb landcover with associated soil compaction resultant from the use of timber matting and heavy machinery will increase discharge (from a 2-year, 24-hour storm event)" (See Appendix A, pp. 13, 23, 24, 31, 32, 38). However, the Band did not provide a model report or details regarding the data and methodology for either of the Band's referenced modeling exercises. The information provided regarding the modeling referenced by the Band in the Objection Letter is not substantiated and so does not demonstrate that discharges from the project will affect the quality of the Band's waters so as to violate the Band's water quality requirements.

The Band also asserts that discharges associated with blasting and HDD will alter groundwater flow paths and groundwater-surface water interactions, ultimately affecting the hydrology of aquatic resources at the Reservation (See Appendix A, p. 25). Groundwater-surface water interactions are complex and are best analyzed through field measurements, laboratory analyses and modeling techniques.[20] Information reviewed by EPA, including information provided by the Band, did not provide data, studies, modeling or analyses characterizing this complex interaction or demonstrate how discharges (including discharges of pollutants) would adversely affect the hydrology of aquatic resources at the Reservation so as to violate water quality requirements. As such, the Band does not substantiate their assertions regarding impacts from the project on groundwater/surface water connections or how any such impacts will violate the Band's water quality requirements.

In addition to its assertions about modeling performed by its consultants, the Band also cited a number of general journal articles and scientific studies to support its objection. Upon reviewing the cited literature in the Objection Letter, the EPA found that the citations did not specifically demonstrate that discharges from the project will violate applicable water quality requirements. A table listing each of the sources cited by the Band with an explanation as to basis for the conclusion that the sources did not demonstrate that discharges from the project will violate applicable water quality requirements is attached as Appendix G.

[20] U.S.G.S. Groundwater/Surface-Water Interaction. Retrieved 30 April 2025 from https://www.usgs.gov/mission-areas/water-resources/science/groundwatersurface-water-interaction.

One of the Band's literature citations is a 2015 EPA report[21] which includes a statement referenced by the Band in their Objection Letter that "[a] single pollutant discharge might be negligible, but the cumulative effect of multiple discharges could degrade the integrity of downstream waters." (See Appendix A, p. 49). While the Report discusses the importance of considering cumulative effects across a watershed when evaluating the downstream effects on streams and wetlands, neither the Report nor other supporting literature cited by the Band in the Objection Letter contain information about whether and to what extent cumulative discharges from the specific activities that would be authorized under the proposed permit would lower water quality downstream in the Band's waters such that the Band's water quality requirements would be violated. For example, the Band provided "evidence for the concern that activities in the headwaters can generate contaminants that move for large distances downstream" by referencing a Great Lakes Indian Fish and Wildlife Commission analysis of water quality impacts from hard rock mining in the St. Louis River watershed (Appendix A, p. 15). However, the example is not comparable: hard rock mining involves large scale, long duration land disturbances, while pipeline projects involve much smaller scale land disturbances of much shorter duration. Additionally, the Objection Letter references three case studies (See Appendix A, Attachments A-C). However, the case studies, as discussed below, do not contain information about whether and how discharges from the EL5 project specifically will violate the Band's water quality requirements at the Reservation boundary.

In sum, nothing in either the information provided by the Band in support of its Objection Letter or the information contained in the other documents reviewed by the EPA demonstrates that discharges from the project in any of the four categories (including any pollutants in such discharges) will reach the Band's waters in amounts that would result in a violation of the Band's water quality requirements; and the only document presented to EPA that closely examines the issue – the Sediment Discharge Modeling Report – suggests that any impacts on the Band's waters from discharges associated with the project on TSS levels would be indistinguishable from background or natural variability. Consequently, neither the Band's Objection Letter nor the other sources of information that the EPA reviewed in evaluating the Band's objection demonstrate that discharges from the project (including any pollutants in such discharges) would reach the Band's waters in amounts that would result in violation of the Band's water quality requirements.

It is also worth noting that Wisconsin's WQC and associated conditions are intended to ensure federally permitted activities that may result in discharges into WOTUS will comply with state water quality requirements. Any CWA 404 permit, if issued to Enbridge, must include conditions from Wisconsin's WQC, which include conditions addressing all four discharge types. As discussed below, the EPA considered these conditions when evaluating whether discharges authorized by the CWA 404 permit will violate the Band's water quality requirements.

[21] U.S. EPA. Connectivity of Streams and Wetlands To Downstream Waters: A Review and Synthesis of the Scientific Evidence (Final Report). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-14/475F, 2015. https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=296414.

2. Evaluation regarding discharges associated with Construction Matting/Site Access

Background
According to the Corps DCDD, Enbridge proposes to use temporary timber construction matting to reduce impacts to wetlands and waterways and reduce the spread of invasive species from the operation of construction equipment (See Appendix C, p. 12). Additionally, construction matting would be used in wetlands to store soils excavated during pipeline installation activities (p. 96). Enbridge also proposes to install construction matting in areas where construction equipment (other than low ground-pressure equipment) will cross or work in a wetland or waterway, and at construction entrances (p. 45). The placement of temporary construction matting accounts for 12.53 acres of temporary impacts for construction access and soil storage, and 6.24 acres of temporary impacts for HDD entrance and exit locations (p. 11). The duration of temporary construction activities in wetlands may vary due to the length of each individual wetland or wetland complex crossed. Access may be needed for several months; therefore, timber mats may remain in place until access through wetland is no longer needed. Temporary bridges and wetland matting will be removed as soon as practicable after access for construction is no longer required; this is typically completed as part of the final cleanup phase (pp. 10-11). The duration of instream disturbance, including the temporary placement of construction matting in waterways, may take as little as 8 hours or as long as 72 hours (p. 10). Restoration activities are proposed to occur immediately after construction to stabilize and seed the disturbed construction workspace (p. 16).

Case Study: In their Objection Letter, the Band included a case study describing an Enbridge Line 5 Check Valve Installation Project within Reservation boundaries where construction matting was placed for temporary site access (See Appendix A, Attachment C). The Band asserts that construction matting impacts proposed for the reroute are similar to impacts incurred during the Check Valve Installation Project, and would violate their narrative water quality criteria (See Appendix B, sections E.6.ii.c., E.6.ii.d., E.6.ii.e, E.6.i.g., E.7.iii.), and their antidegradation requirements (section E.2 through E.5). The case study describes the impacts from the Check Value Installation due to the placement of matting, specifically, increased “stormwater discharges from the construction site” and other changes in hydrology such as “increased runoff and less infiltration” resulting from soil compaction, “increased erosion and sedimentation” and “increased turbidity” from matting placement and vehicle operation, temporary impacts lasting longer than planned, and “cumulative impacts to water quality” (See Appendix A, Attachment C). The Band indicated the case study “is an example of the water quality impacts directly attributed by false assurance by the project proponent to MNRD [Mashkiiziibii Natural Resources Department] of minimized impacts along the access road by using temporary construction matting” and “how the use of the matting resulted in increased sedimentation in aquatic resources, the take of herpetiles (snakes and turtles), and impacts to culturally

important plants" (See Appendix A, Attachment C). However, the case study did not demonstrate downstream impacts from the placement of construction matting or how placement of construction matting resulted in a violation of the Band's water quality requirements. Thus, the case study does not demonstrate that discharges from the construction matting in the project area (including any pollutants in such discharges) will reach the Band's waters in amounts that would result in violations of the Band's water quality requirements.

In sum, the case study evaluated by the EPA does not demonstrate that discharges related to construction matting will violate the Band's water quality requirements.

Hydrology: The Band asserts the placement of construction matting and equipment traffic driving off construction matting will require removal of vegetation and result in compacted soils, causing an increase in discharge rates (See Appendix A, pp. 13, 23, 31, & 38). The Band asserts that these discharges would violate their narrative water quality criteria (See Appendix B, sections E.6.ii.d, E.6.ii.c, E.6.ii.e, E.7.iii, and E.6.i.c), their designated uses requirements (sections F.1, F.2, and F.10), and their antidegradation requirements (section E.2 through E.5). According to the Objection Letter, the Band's consulting experts modeled the conversion of landscape to grass/herb landcover with associated soil compaction from the use of timber matting and heavy machinery and the results indicate "the Project will increase discharge rates (from a 2-year, 24-hour storm event) in 15 watersheds that are crossed by the proposed project and flow to the reservation" (See Appendix A, pp. 13, 23). However, as discussed above in Section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not demonstrate that discharges as a result of hydrological changes due to the use of construction matting (including any pollutants in such discharges) will reach the Band's waters in amounts that would result in violation of the Band's water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize any increases in discharges related to construction matting:

- Condition 77 of Wisconsin's WQC requires Enbridge to remove construction matting as soon as possible but not before final cleanup of a pipeline installation segment is complete and heavy equipment will no longer be working within that particular segment (See Appendix D, p. 11).
- Condition 155 requires that during post-construction monitoring the implementation of "corrective actions as soon as practicable to support the restoration of wetlands. This may include minor grading, supplemental seeding or plantings, treatment/control of invasive species, removal of debris, etc., a specified in the [Environmental Construction Plan] ECP" (p. 21).
- Condition 76 of the WQC states, "You shall operate vehicles and equipment in wetlands on construction matting or during stable ground conditions where operation will not result in soil rutting, mixing, or compaction" (p. 76).

- Condition 6 requires Enbridge to implement Enbridge's Environmental Construction Plan (ECP, see Appendix F).
    - Attachment D (Environmental Protection Plan (EPP)) to the ECP includes several measures to reduce hydrologic changes resulting from construction matting. These include the use of erosion control devices, identification of necessary corrective actions during construction, restoration of matted areas through soil decompaction and revegetation, and monitoring of impacted areas post-construction. The EPP also states, "all construction equipment and vehicles will be confined to the approved construction right-of-way (ROW) and additional temporary workspace" (p. 2).

In sum, the information evaluated by the EPA does not demonstrate that discharges related to construction matting will violate the Band's water quality requirements.

Destabilized soils: The Band asserts that the placement and removal of construction matting will cause soil destabilization and sediment discharges, which will travel downstream to the Band's waters, resulting in a degradation of surface water quality (See Appendix A, pp. 21, 24). The Band asserts that this would violate their narrative water quality criteria (See Appendix B, sections E.6.ii.e, E.6.ii.c, and E.7.iii), their designated uses requirements (sections F.1, F.2, and F.10), and their antidegradation requirements (section E.2 through E.5). However, as discussed above in section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not demonstrate that discharges associated with destabilized soils and construction matting (including any pollutants in such discharges) will reach the Band's waters in amounts that would result in violation of the Band's water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize any increases in discharges related to soil destabilization from the placement and removal of construction matting:

- Conditions 16 through 41 of Wisconsin's WQC detail specific erosion and sediment control actions that Enbridge must take to reduce the amount of sediment discharge from construction; some examples include:
    - carrying out sediment and erosion best management practices consistent with the state Pollutant Discharge Elimination System Construction Site Stormwater General Permit (See Appendix D, Condition 18 p. 5)
    - inspection and maintenance requirement for BMPs throughout construction and restoration activities (Condition 20, p. 5)
    - regular inspection of access roads that cross wetlands and waterways (Condition 22, p. 6)
    - the use of erosion control matting, blankets and/or netting in or adjacent to waterways and wetlands to prevent erosion during the establishment of vegetation (Condition 29, p. 6).

- Conditions 159 through 231 detail requirements for protecting water quality in waterways impacted by the project, including:
    - specific construction procedures for waterway crossings such as the avoiding work during high flows or within 24 hours of forecasted rain events exceeding ½ inch (Condition 161, p. 22)
    - minimizing the removal of trees, shrubs, and bank vegetation (Condition 169, p. 23)
    - restoration of streambed elevations to pre-existing conditions (Condition 172, p. 23)
    - a provision to conduct macroinvertebrate sampling consistent with the ECP Water Quality Monitoring Plan (Condition 176, p. 23).
- Condition 6 requires Enbridge to implement Enbridge's ECP (p.4).
    - Attachments D (EPP) and P (Wetland and Waterbody Restoration and Post-Construction Monitoring Plan) to the ECP include provisions for site specific Best Management Practices (BMPs) to reduce sediment transport throughout the project area, corrective actions during construction and restoration, and monitoring for turbidity post-construction (See Attachment F – ECP).

In sum, the information evaluated by EPA does not demonstrate that the placement and removal of construction matting will cause soil destabilization and sediment discharges that will violate the Band's water quality requirements.

Invasive species: The Band asserts that construction and maintenance activities will disturb soil, remove native species and shrub cover, and overall increase human activity in the area which will facilitate the expansion of existing invasive species on the site or tracked in throughout the project area, resulting in the establishment of new populations and consequently, a degradation of the Band's waters and hydrologically connected wetlands (See Appendix A, p. 43 and 47). The Band asserts that this would violate their narrative water quality criteria (See Appendix B, sections E.6.ii.a., E.6.ii.c., E.6.i.e, and E.6.i.g), their designated uses requirements (sections F.1, F.2, and F.10), and their antidegradation requirements (section E.2 through E.5). However, there is no information provided by the Band or in the other information reviewed by the EPA that demonstrates that discharges from construction and maintenance activities and site access for this project will result in the transport of invasive species from construction areas downstream to the Band's reservation in a manner that will violate the Band's water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize the spread of invasives through discharges related to construction and maintenance activities:

- Conditions 75 and 80 through 107 require Enbridge to use clean construction mats, ensuring the use of construction matting when vehicles travel through known invasive

populations (and not reusing those mats), and conducting post-construction monitoring and corrective actions (See Appendix D, pp. 11-12, 14-15).

- Condition 6 requires Enbridge to implement Enbridge's ECP (p.4).
    - Attachment L to the ECP is Enbridge's Invasive and Noxious Species Management Plan (INSP), which includes preventative measures to avoid the spread of invasive species including the use of new construction mats or cleaning used mats before placement (See Appendix F - ECP, Attachment L, p. 5), monitoring for invasives (p. 7), and implementing corrective action if new populations are located (p. 16).

In sum, the information evaluated by EPA does not demonstrate that discharges associated with the placement and removal of construction matting will result in the spread of invasive species that will violate the Band's water quality requirements.

Temporary impacts: The Band asserts that construction matting impacts to wetlands and waterways categorized as temporary by Enbridge will last significantly longer than what the Corps has typically defined as temporary impacts (i.e., lasting up to 90 days), and may need active restoration to revert back to preconstruction condition, causing a longer duration of potential water quality degradation from discharges associated with construction matting (See Appendix A, p. 3). The Band asserts that this would violate their narrative water quality criteria (See Appendix B, section E.6.ii.c), their designated uses requirements (sections F.1, F.2, and F.10), and their antidegradation requirements (section E.2 through E.5). The duration of temporary construction activities in wetlands may vary due to the length of each individual wetland or wetland complex crossed (See Appendix C, p. 65). Also, as discussed above in section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not demonstrate that discharges from temporary impacts due to construction matting (including any pollutants in such discharges) will reach the Band's waters in amounts that would result in violation of the Band's water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would address temporary impacts due to discharges related to construction matting:

- Conditions 144 through 157 of Wisconsin's WQC detail specific requirements that Enbridge must adhere to while completing site restoration and post-construction monitoring to ensure successful restoration of aquatic resources, such as restoring wetlands to pre-existing elevations and hydrology as specified in the ECP, conducting wetland hydrological monitoring as described in the ECP, and use of native seed mix as well as bare root stock to reestablish wetland vegetation (See Appendix D, pp. 20-22).
- Condition 6 requires Enbridge to implement Enbridge's ECP (p. 4).
    - Attachment L (Invasive and Noxious Species Management Plan) to the ECP (Appendix F – ECP) requires Enbridge to restore and revegetate all disturbed areas, including construction matting locations, following construction, monitor

restoration success, and perform corrective actions if performance standards are not met.

In sum, the information evaluated by EPA does not demonstrate that the placement and removal of construction matting will result in discharges that will violate the Band's water quality requirements.

3. Evaluation regarding discharges associated with Trenching

Background
According to WNDR's Final Environmental Impact Statement, Enbridge proposes to use standard open trench construction methods for 75% (approximately 31 miles) of the mainline installation in both uplands and wetlands.[22] Enbridge will cross larger waterbodies proposed as a dry crossing technique (Dam and Pump or Flume method) under either normal or low flow conditions (See Appendix F - ECP, P. 15). Enbridge will cross smaller intermittent and ephemeral waterbodies with water present within the construction work area at the time of construction using a dry crossing technique (p. 15). Enbridge will cross dry streams (no water present within the construction work area at the time of construction) using an Open Cut/Wet Trench method (p. 15). However, Enbridge will have materials on site to switch from the Open Cut/Wet Trench method to a Dry Crossing method should the stream begin to flow during installation of the crossing (p. 15).

Destabilized soils: The Band asserts that trenching activities, including dewatering, will cause soil destabilization, sediment discharge, and pollutant transport, which will travel downstream to the Reservation Boundary, resulting in a degradation of surface water quality in the Band's waters (See Appendix A, pp. 21 & 45). The Band asserts that this would violate their narrative water quality criteria (See Appendix B, sections E.6.ii.c. and E.6.ii.e.), their numeric water quality criteria for turbidity (section E.7.iii), their designated uses requirements (section F.1, F.2, and F.10), and their antidegradation requirements (section E.2). However, as discussed above in section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not demonstrate that discharges associated with destabilized soils associate with trenching (including any pollutants in such discharges) will reach the Band's waters in amounts that would result in violation of the Band's water quality requirements.

The Band provided a case study describing pipeline trenching and maintenance activities occurring near Denomie Creek on the Band's Reservation (See Appendix A, Attachment A). According to the Band "[t]his case study is an example of associated water quality impacts due to the inadequacy of accurate waterway and wetland mapping ... and is also an example of

[22] Wisconsin Department of Natural Resources. (2024, September). *Final Environmental Impact Statement: Proposed Enbridge Line 5 Relocation Project.*

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 needed to occur to recover the pipeline"(p. 4). Furthermore, the Band states "this project is an example of similar regulated activities and water quality effects that could be authorized by the Army Corps associated with the construction, maintenance, or operation of the Enbridge Line 5 relocation project in watersheds adjacent to the Reservation and connected to tribal waters" (p. 2). The Band contends the project resulted in compliance issues including BMP failures, excess sedimentation in the stilling basin, sinkholes, and the spread of invasive species (p. 4). The Band provided this case study as an example of pipeline trenching and maintenance activities resulting in pollutants or human-induced changes to waters (See Appendix A, p. 51, 52). However, this case study evaluated the immediate, near-term impacts from the project; it did not evaluate any downstream impacts.

The following conditions in Wisconsin's WQC would minimize soil destabilization, sediment discharge, and pollutant transport from discharges related to trenching:

- Conditions 16 through 41 of the Wisconsin WQC (See Appendix D, pp. 5-8) detail requirements for sediment and erosion controls
- Conditions 134 through 142 (pp. 19-20) detail requirements for dewatering
- Conditions 159 through 231 (pp. 22-28) detail requirements for water quality in waterways.
- Condition 6 requires Enbridge to implement Enbridge's ECP (p. 4).
    - Attachments D (EPP) and P (Wetland and Waterbody Restoration and Post-Construction Monitoring Plan) to the ECP include provisions for site specific BMPs to reduce sediment transport throughout the project area, corrective actions during construction and restoration, and monitoring for turbidity post-construction.

In sum, the information evaluated by the EPA does not demonstrate that any destabilization in soils that occurs due trenching activities will result in discharges that will violate the Band's water quality requirements.

Hydrology: The Band asserts that trenching will result in soil compaction and mixing, leading to discharges resulting from altered soil water holding capacity, hydrology, groundwater processes, soil/sediment chemistry, and invertebrate and wetland plant habitat, and possibly release mercury and methylmercury (See Appendix A, pp. 45, 46, 54). The Band asserts that this would violate their narrative water quality criteria (See Appendix B, sections E.6.ii.d., E.6.ii.c., E.6.ii.e, and E.6.ii.h), their designated uses requirements (sections F.2, F.5, and F.10), and their antidegradation requirements (section E.2). However, as discussed above in section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not demonstrate that discharges

associated with hydrologic alternations (including any pollutants in such discharges) will reach the Band's waters in amounts that would result in violation of the Band's water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize soil compaction and mixing from discharges related to trenching:

- Conditions 49, 61-73, 114, 133, 197, 208, 220-230, of Wisconsin's WQC detail requirements for trenching activities in wetlands and waterways (See Appendix D, pp. 9-11, 16, 18, 25-27).
- Conditions 144 through 157 describe the post-construction restoration and monitoring process (p. 20-22)
- Condition 6 requires Enbridge to implement Enbridge's ECP (See Appendix D, p.4).
    - Attachment D to the ECP (the EPP) includes plans to restore excavated trenches with segregated native material that is removed from the trench during the excavation process (See Appendix F – ECP, p. 10).
    - Attachment P to the ECP (the Wetland and Waterbody Restoration and Post Construction Monitoring Plan) proposes the use of pre- and post-construction groundwater monitoring well data to assess any changes in groundwater elevation from the project (See Appendix F - ECP, Attachment P, pp. 12-14).

In sum, the information evaluated by EPA does not demonstrate that a change in hydrology associated with trenching activities will result in discharges that will violate the Band's water quality requirements.

Vegetation Removal: The Band asserts that the removal of vegetation from watercourses crossed by open trenching will result in impacts that last longer than "temporary" or that those watercourses will never be restored to pre-construction conditions. Specifically, the Band asserts that the vegetation disturbances will result in sediment discharges to receiving waters, including downstream Tribal waters, that will last longer than what is described in the RPS report referenced above (See Appendix A, p. 47). The Band asserts that this would violate their narrative water quality criteria (See Appendix B, section E.6.ii.c.), their designated uses requirements (sections F.1, F.2, and F.10), and their antidegradation requirements (section E.2). However, as discussed above in section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not demonstrate that discharges associated with vegetation removal (including any pollutants in such discharges) will reach the Band's waters in amounts that would result in violation of the Band's water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize vegetation disturbances from discharges related to trenching:

- Conditions 144 through 157 of the WQC provide requirements for the restoration of impacted wetlands and waterways (See Appendix D, p. 20-22).
- Condition 6 requires Enbridge to implement Enbridge's ECP (p. 4).

- Attachment P to the ECP is the Wetland and Waterbody Restoration and Post-Construction Monitoring Plan. Under that plan, a 30 to 50-feet-wide corridor will need to be maintained along the pipeline in an herbaceous state to facilitate aerial monitoring and pipeline access, maintenance of the corridor will result in areas of forested and/or shrub dominated wetlands being permanently converted to emergent wetland, areas of the construction workspace outside of the corridor will not be maintained and will be allowed to revert to their pre-construction wetland type, and there is a requirement to compensate for temporary impacts and the conversion of forested/scrub-shrub wetlands to emergent (See Appendix F - ECP, Attachment P, p. 7).
- areas with excavated open trench will be limited to a maximum of 3 days (See Appendix F - ECP, Attachment D, EPP, p. 10).
- construction work area cleanup and stabilization will commence within 72 hours after backfilling the trench, as weather permits (See Appendix F - ECP, p. 19).
- final grading, topsoil replacement, seeding, and installation of permanent erosion control structures will be completed within 20 days after backfilling the trench (See Appendix F - ECP, p. 13).
- monitoring plans within ECP specify conducting post-construction monitoring in all impacted wetlands and waterways to ensure restoration success (See Appendix F - ECP, Attachment P, pp. 9, 21).
- if there are restoration areas that do not meet performance standards, additional monitoring and assess opportunities for correction action must be completed (pp. 22-23).

In sum, the information evaluated by EPA does not demonstrate that vegetation disturbances resulting from open cut trenching will result in sediment discharges that will violate the Band's water quality requirements.

4. Evaluation regarding discharges associated with Blasting

Background

As part of the EL5 project, Enbridge estimates blasting a total of 41,400 feet (an estimated 8 miles) from a combination of locations along the pipeline route (ECP Attachment J-Blasting Plan, p. 4). According to Enbridge, pipeline installation in shallow bedrock areas requires that the bedrock layer within the trench area be fractured and removed to the depth of excavation required to install the pipeline in accordance with Pipeline Hazardous Materials Safety Administration depth-of-cover requirements and with Enbridge's internal depth-of-cover requirements (See Appendix F - ECP, p. 24). Enbridge identified 11 areas that include stream crossings that may require blasting to establish the trench for pipeline installation: *Blasting Table 1: Anticipated Blasting Areas* below (See Appendix F - ECP, p. 24).

Blasting Table 1: Anticipated Blasting Areas

Area	Milepost Start	Milepost End	Length (feet)
1	19.78	19.90	609
2	20.45	21.12	3,500
3	22.01	22.14	709
4	22.54	23.60	5,610
5	23.66	24.10	2,348
6	24.68	25.90	6,452
7	26.50	27.95	7,656
8	29.40	29.91	2,668
9	29.94	30.60	3,468
10	30.87	31.79	4,862
11	32.09	32.76	3,518

Within the 11 anticipated blasting areas, there are 17 stream crossings that may require in-stream blasting (Blasting Plan, p. 12).

Blasting residue: The Band asserts "discharges of blasting residue... will cause the degradation of surface water quality" (See Appendix A, p. 21). The Band also asserts that "the Project is also planning to use excess rock from blasting as fill for trench material, which will contain blasting residue", (See Appendix A, p. 54), and that "the blasting residue used for this project would also contribute to pollution loading of wetlands and waterways. The Band describes the "blasting residue constituents of concern" as "nitrates, fuel oil, perchlorate, mercury, RDX, HMX, and PETN" (Attachment B to Band's 2024 Comment on Corps DCDD, See Appendix A, p. 45). The Band asserts that this would violate their narrative water quality criteria (See Appendix B, sections E.6.ii.a, E.6.ii.c, E.6.ii.e and E.6.ii.f), their designated uses requirements (sections F.1, F.2, and F.10), their numeric water quality criteria for ammonia (section H.10) and mercury (sections H.1-H.11), and their antidegradation requirements (sections E.2). However, as discussed above in section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not demonstrate that discharges associated with blasting residue (including any pollutants in such discharges) will reach the Band's waters in amounts that would result in violation of the Band's water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize impacts from discharges related to blasting:

- Condition 6 of the WQC (See Appendix D, p. 4) requires Enbridge to implement their ECP, which states that "where blasting is required to install pipeline across a waterbody, Enbridge will conduct all instream work in isolated conditions (through the use of dry crossing methods)" including temporary dams to isolate the work area (See Appendix F - ECP, p. 26). The stream will remain isolated until all in-stream work is completed, the

stream banks have been restored, and bank erosion controls have been put in place (p. 26).
- Conditions 44, 45, and 145 of Wisconsin's WQC include specific requirements for all blasting activities, which includes a requirement for Enbridge to follow the blasting plan that was submitted as Attachment J to the ECP (See Appendix D, pp. 8, 145).

In sum, the information evaluated by the EPA does not demonstrate that discharges associated with blasting residue will result in violations of the Band's water quality requirements.

Chemicals of concern: The Band asserts that substances such as PFAS/PFOS, radionuclides, asbestos, arsenic, sulfur, and nitrates may be discharged through the blasting process (See Appendix A, p. 39, 51). The Band asserts these discharges will result in violations of their narrative water quality criteria (See Appendix B, sections E.6.ii.a, E.6.ii.c, E.6.ii.e, E.6.ii.f, and E.6.ii.h), their designated uses requirements (sections F.1, F.2, and F.10), their numeric water quality criteria for arsenic (sections H.1-H.3), and their antidegradation requirements (section E.2). However, as discussed above in section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not demonstrate that discharges (including discharges of chemicals of concern resulting from blasting) will reach the Band's waters in amounts that would result in violation of the Band's water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize impacts from discharges related to blasting

- Conditions 44, 45, and 145 of Wisconsin's WQC include specific requirements for all blasting activities, which includes a requirement for Enbridge to follow the blasting plan that was submitted as Attachment J to the ECP (See Appendix D, pp. 8, 145).
- Condition 6 requires Enbridge to implement Enbridge's ECP (p.4).
    - The ECP includes the EPP which identifies numerous BMPs, including "only non-hazardous additives will be used and Safety Data Sheets will be maintained on site" (See Appendix F - ECP, Attachment D, p. 35).
    - The ECP also includes a WQMP (Attachment O to the ECP) that contains a monitoring program that includes sampling of a suite of water quality parameters of concern including mercury and PFAS.

In sum, the information evaluated by the EPA does not demonstrate that discharges associated with blasting residue with the chemicals identified by the Band will result in violations of the Band's water quality requirements.

Hydrology: The Band asserts that blasting will alter groundwater flow paths, groundwater levels, and groundwater-surface water interactions, ultimately affecting the hydrology of aquatic resources at the Reservation (See Appendix A, p. 25). Specifically, the Band asserts "blasting in shallow bedrock areas will increase fracturing in the bedrock beyond what would be excavated

and refilled as part of the proposed construction. This would alter flows both entering and exiting the groundwater system. This will lead to changes in TSS and other contaminants in groundwater wells" (See Appendix A, p. 45). The Band asserts this would violate their narrative water quality criteria (See Appendix B, sections E.6.ii.d and E.6.ii.e), their designated uses requirements (sections F.2, F.5, and F.10), and their antidegradation requirements (section E.2). However, as discussed above in section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not substantiate the Band's assertions regarding impacts from the project on groundwater/surface water connections or how any such impacts will violate the Band's water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize hydrology changes from discharges related to blasting:

- Condition 11 of Wisconsin's WQC states that "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. These springs shall be restored to pre-existing flow regimes and conditions as required by the Department." (See Appendix D, p. 4)
- Conditions 44, 45 and 145 (pp. 8, 20) detail specific requirements for all blasting activities, which includes a requirement for Enbridge to follow the blasting plan that was submitted as Attachment J to the ECP (p. 8) as well as a requirement to "restore areas of blasting in wetlands and waterways to preconstruction hydrology and elevations immediately after installation of the pipe" (p. 20).
- Condition 6 requires Enbridge to implement their ECP (p. 4), which states that shallow groundwater monitoring wells will be installed within select wetlands to monitor for changes in near-surface saturation and hydrology (See Appendix F - ECP Attachment P, p. 14). If impacts to hydrology are identified, Enbridge will take actions to restore the hydrology (See Appendix F - ECP, p. 23).

In sum, the information evaluated by the EPA does not demonstrate that hydrologic changes associated with blasting will result in discharges that will violate the Band's water quality requirements.

Destabilized soils: The Band asserts that discharges of sediment from soils that become destabilized as a result of blasting activities will cause the degradation of surface water quality (See Appendix A, p. 21). The Band asserts this would violate their narrative water quality criteria (See Appendix B, sections E.6.ii.e and E.6.ii.f), their designated uses requirements (section F.2), and their antidegradation requirements (section E.2). However, as discussed above in section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not demonstrate that discharges associated with destabilized soils resulting from blasting (including any pollutants in such discharges) will reach the Band's waters in amounts that would result in violation of the Band's

water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize soil disturbances from discharges related to blasting:

- Conditions 44, 45, and 145 of Wisconsin's WQC include specific requirements for all blasting activities, which includes:
    - to "limit the extent of blasting in wetlands, waterways, and sensitive resources to the greatest extent practicable" (Appendix D, Condition 44, p. 8).
    - a requirement for Enbridge to follow the blasting plan that was submitted as Attachment J to the ECP (Condition 45, p. 8)
    - to "restore areas of blasting in wetlands and waterways to preconstruction hydrology and elevations immediately after installation of the pipe (Condition 145, p. 20)
- Condition 6 (p. 4) requires Enbridge to implement Enbridge's ECP, which states that all in-stream blasting activities will be completed using dry crossing methods including temporary dams to isolate the work area (See Appendix F - ECP, p. 26). The stream will remain isolated until all in-stream work is completed, the stream banks have been restored, and bank erosion controls have been put in place (p. 26).

In sum, the information evaluated by the EPA does not demonstrate that destabilization of soils associated with blasting will result in discharges that will violate the Band's water quality requirements.

Temperature: The Band also asserts that blasting will change surface water temperatures by altering the groundwater/surface water connections (See Appendix A, p. 52). The Band asserts this would violate their narrative temperature criterion (See Appendix B, section E.6.ii.g), their specific numeric criteria (section E.7.i), their designated uses requirements (section F.5), and their antidegradation requirements (section E.2). However, as discussed above in section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not substantiate the Band's assertions regarding impacts from the project on groundwater/surface water connections or how any such impacts will violate the Band's water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize temperature changes from discharges related to blasting:

- Condition 169 states "removal of trees, shrubs, and bank vegetation shall be minimized as specified in the ECP" (Appendix D, p. 23).
- Condition 173 states "Waterway banks shall be restored to pre-existing conditions as specified in the ECP. If pre-existing bank conditions are determined to be unstable, the banks shall be restored to stable slopes" (p. 23).

- Condition 176 states "you shall perform macroinvertebrate sampling in accordance with the ECP's Water Quality Monitoring Plan" (p. 23).
- Condition 6 of the WQC (p. 4) requires Enbridge to implement their ECP.
    - monitoring plans within ECP specify conducting post-construction monitoring in all impacted wetlands and waterways to ensure restoration success (See Appendix F - ECP, Attachment P, pp. 9, 21).
    - If there are restoration areas that do not meet performance standards, additional monitoring and assess opportunities for correction action must be completed (See Appendix F - ECP, Attachment P, pp. 22-23).

In sum, the information evaluated by the EPA does not demonstrate that temperature changes associated with blasting will result in discharges that will violate the Band's water quality requirements.

5. *Evaluation regarding discharges associated with* Horizontal Directional Drilling and Direct Drilling

Background
The Aquifer Analysis and Horizontal Directional Drill Designs report indicates thirteen streams (see Table 1 below) would be crossed using either HDD or DD trenchless crossings. [23] The DCDD states that approximately 33.92 acres of forested and scrub shrub wetlands would be permanently converted into emergent wetlands and maintained clear of woody vegetation within the 50-foot-wide permanent maintenance corridor and within the 30-foot-wide corridor over the centerline of the pipeline at HDD crossings for operational and aerial inspection purposes (See Appendix C, pp. 11, 80).

The Corps is authorized to regulate HDD or DD crossings of Section 10 waters (in this case the White River) and when Section 404 regulated activities occur along with the installation/construction of HDD or DD (pp. 15, 48 & 56). Furthermore, in the case of an IR of drilling fluids/mud, "the Corps may regulate IRs when a release meets the criteria to be considered discharge of fill material. When considering drilling mud from an IR, 33 C.F.R. 323.2(e) specifies that the material must effectively change the bottom elevation of a WOTUS or replace a WOTUS with dry land" (p. 56). While there is a potential for IRs to occur during the project, the Corps decided it was not appropriate to anticipate IRs as a foreseeable action for the project (p. 56).

Table 1. Proposed HDD and Direct Pipe Crossings on the Line 5 Project[24]

[23] U.S. Army Corps of Engineers St. Paul District. (2024, May 20). *Draft Environmental Assessment, Clean Water Act Section 404(b)(1) Guidelines Evaluation, and Public Interest Review.* Enbridge Line 5 Wisconsin Segment Relocation Project, Appendix 18.
https://www.mvp.usace.army.mil/Portals/57/docs/regulatory/Enbridge/EnbridgeLine5/DCDD/L5R%20Draft%20CDD%2020240520_508_final.pdf?ver=jx4JTdDVjSuQI1-YlG7DwA%3d%3d
[24] Id.

Mile Post	Crossing Name	Crossing Method	Location	True Length
4	White River	HDD	Ashland County, Wisconsin	4,485 feet
6	Deer Creek	HDD	Ashland County, Wisconsin	1,790 feet
11	Marengo River	Direct Pipe	Ashland County, Wisconsin	2,013 feet
14	Brunsweiler River	HDD	Ashland County, Wisconsin	2,809 feet
15	State Highway 13	HDD	Ashland County, Wisconsin	2,018 feet
16	Trout Brook	HDD	Ashland County, Wisconsin	2,356 feet
18	Billy Creek	HDD	Ashland County, Wisconsin	1,788 feet
19	Silver Creek	HDD	Ashland County, Wisconsin	3,674 feet
22	Krause Creek	HDD	Ashland County, Wisconsin	2,092 feet
24	Bad River	HDD	Ashland County, Wisconsin	1,788 feet
34	Tyler Forks	HDD	Iron County, Wisconsin	1,851 feet
38	Potato River	HDD	Iron County, Wisconsin	3,496 feet
39	Vaughn Creek	HDD	Iron County, Wisconsin	2,072 feet

Potential Inadvertent Releases: The Band asserts "there are multiple ways that the project will increase erosion, sedimentation, and turbidity and impact water quality in tribal waters, such as IRs associated with Project's HDD" (See Appendix A, p. 51). Specifically, the Band contends that "IRs associated with the Project's HDDs or direct bores…will increase turbidity in downstream or otherwise hydrologically connected Tribal waters" based on certain assumptions made as part of an example analysis associated with the St. Paul District Utility Regional General Permit Case Study (p. 54). Also, the Band asserts that potential IRs of drilling mud/fluid can result in impacts to aquatic communities. Specifically, the Band asserts that an IR of drilling fluid "can smother fish spawning beds, impact macroinvertebrate communities, and imbalance food webs" (p. 39). Furthermore, the Band is concerned about the White River HDD crossing because "it is in the middle of the Lake Sturgeon spawning grounds" (p. 34). "Turbidity and sedimentation are detrimental to Lake Sturgeon recruitment and an IR of any size could potentially degrade this important habitat" (p. 34). Consequently, the Band contends that potential IRs would violate their narrative water quality criteria (See Appendix B, sections E.6.ii.a, E.6.ii.c, E.6.ii.d, E.6.ii.e, E.6.ii.f, E.6.ii.g, E6.ii.h, and E.6.i.c), including their numeric water quality criteria for turbidity (section E.7.iii), their designated uses requirements (sections F.1, F.2, and F.10), and their antidegradation requirements (section E.2). However, as discussed above in section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not demonstrate that discharges associated with inadvertent returns (including any pollutants in such discharges) will reach the Band's waters in amounts that would result in violation of the Band's water quality

requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize discharges related to HDD/DD:

- Conditions 113-133 of Wisconsin's WQC provide requirements associated with HDD and DD, including continuous monitoring for signs of IRs during drilling operations, staging equipment on-site, such as vacuum trucks and absorbent materials in the event there is an inadvertent return, and following site specific response plans that include reporting and clean-up information in the event that there is an IR (See Appendix D, pp. 13-18).
- Condition 42 of the WQC requires that "equipment used for the project shall be the right size to do the job and shall be brought to and removed from the project site without unreasonable harm to…fish and wildlife habitat as specified in the ECP." (p. 8) Condition 46 also specifies requirements to minimize adverse impacts to "fish movement, fish spawning, and egg incubation periods." (p. 8).
- Condition 6 of the WQC requires Enbridge to implement the ECP (p. 4).
    - site-specific plans devised to address an IR in the event it happens "include plan drawings showing the locations of workspace and sensitive resources, a description of prevention measures that will be implemented for each HDD location, a description of the actions that Enbridge would take to address an inadvertent return ("IR"), and precautions that would be taken prior to resuming drilling operations following an IR" (See Appendix F - ECP, p. 23).
    - the ECP includes the EPP (Attachment D), which identifies numerous BMPs, including those identified at pp. 34-37, that would be implemented during HDD and DD construction to reduce the risk of IRs and other releases, the site-specific HDD plans referenced above (Attachment H), and a WQMP (Attachment O) that includes a monitoring program specific to IRs (See Appendix F – ECP).

In sum, the information evaluated by the EPA does not demonstrate that inadvertent returns will result in discharges that will violate the Band's water quality requirements.

Pollutants of concern: The Band asserts that project-related discharges, including IRs, "will introduce sources of BCCs [bioaccumulative chemicals of concern] including but not limited to, PFAS and mercury" into watersheds crossed by the project, and due to the hydrologic connections between the waters crossed by the project and the Bands OTRWs and ORWs, "the project will result in an increased loads of BCCs into the Band's ORWs and OTRWs" (See Appendix A, p. 63). Specifically, the Band notes "there is potential for HDD fluid that could be released to contain PFAS and other chemicals, as material data sheets may not be thorough due

to proprietary information (Glüge et al, 2020[25]; Horwitt and Gottlieb, 2023[26])" (See Appendix A, p. 53). The Band contends that this would violate their narrative water quality criteria (See Appendix B, sections E.6.ii.a, E.6.ii.c, E.6.ii.e, E.6.ii.f, E.6.ii.h, and E.7.iii), their designated uses requirements (sections F.1, F.2, and F.10), their numeric water quality criteria for mercury (sections H.1-H.11), and their antidegradation requirements (section E.2). However, as discussed in section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not demonstrate that discharges associated with IRs (including pollutants in such discharges) will reach the Band's waters in amounts that would result in violation of the Band's water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize discharges related to HDD/DD:

- Conditions 113-133 of Wisconsin's WQC provide requirements associated with HDD and DD, including continuous monitoring for signs of IRs during drilling operations, staging equipment on-site, such as vacuum trucks and absorbent materials in the event there is an inadvertent return, and following site specific response plans that include reporting and clean-up information in the event that there is an IR (See Appendix D, pp. 16-18).
- Condition 6 requires Enbridge to implement Enbridge's ECP (p. 4).
    - The ECP includes the EPP (Attachment D), which identifies numerous BMPs, including those identified at pp. 34-37, such as; 1) "only non-hazardous additives will be used and Safety Data Sheets will be maintained on site" (See Appendix F - ECP, p.35), 2) "during construction of a drilled crossing, contractor personnel will monitor the pipeline route throughout the process" (p. 35) and 3) "Enbridge requires the contractor to prepare and implement a contingency plan for inadvertent returns" (p. 35), that would be implemented during HDD and DD construction to reduce release the risk of IRs and other releases
    - The ECP also includes site-specific HDD plans (Attachment H to the ECP), and a WQMP (Attachment O to the ECP) that contains a monitoring program that includes sampling of a suite of water quality parameters of concern including mercury and PFAS.

In sum, the information evaluated by the EPA does not demonstrate that inadvertent returns will result in discharges that will violate the Band's water quality requirements.

Inadvertent Release Case Study: The Band provided a case study, Attachment B to the Band's Objection Letter, describing an inadvertent release from a Department of Transportation (DOT) utility project in Mellen, Wisconsin. The Band notes that "water main project in the city of Mellen, Wisconsin is an example of similar regulated activities and water quality effects that

[25] Glüge, J., M. Scheringer, I.T. Cousins, J.C. DeWitt, G. Goldenman, D. Herzke, R. Lohmann, C.A. Ng, X. Trier, and Z. Wang. (2020). An overview of the uses of per- and polyfluoroalkyl substances (PFAS). *Environmental Science: Processes & Impacts,* 22(12):2345-2373. https://pubmed.ncbi.nlm.nih.gov/33125022/

[26] Horwitt, D., and Gottlieb, B. (2023). Fracking with "Forever Chemicals" in Texas. *Physicians for Social Responsibility*. https://psr.org/wp-content/uploads/2023/02/fracking-with-forever-chemicals-in-texas.pdf

could be authorized by the Wisconsin Department of Natural Resources and the Army Corps associated with the construction, maintenance, or operation of the Enbridge Line 5 relocation project in watersheds adjacent to the Reservation and connected to tribal waters" (See Appendix A, Attachment B). The Band contends that "impacts from IRs like those discussed in [the] DOT Inadvertent Release in the Bad River Case Study can further degrade or impact water quality as drilling fluid is released in water and then additional disturbance into remote areas needs to occur to try to clean it up. These human-induced alterations resulted in changes to the natural biological communities (e.g., flora) and wildlife habitat" (See Appendix A, p. 52). The Band asserts these types of situations can result in violations of their narrative water quality criteria (See Appendix B, sections E.6.ii.a, E.6.ii.c, E.6.ii.e), their designated uses requirements (sections F.1, F.2, and F.10), and their antidegradation requirements (section E.2).

According to the case study, the WDNR visited the site the day after the incident and "did not note an accumulation of bentonite drilling fluid in the immediate vicinity and traveled downstream as far as Copper Falls State Park, seeing no impacts to the river, including evidence of fish kills" (See Appendix A, Attachment B, p. 2). Copper Falls State Park is approximately 2 miles from the discharge location. However, the Band contends that immediate impacts from the spill were not seen by WDNR due to the DOT not reporting the incident to WDNR in a timely manner (p. 2). There is no information before EPA supporting the Band's contention that immediate impacts were worse than those observed by the WDNR or that such immediate impacts would violate the Band's water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize discharges related to HDD/DD:

- Conditions 113-133 of Wisconsin's WQC provide requirements associated with HDD and DD, including continuous monitoring for signs of IRs during drilling operations, staging equipment on-site, such as vacuum trucks and absorbent materials in the event there is an inadvertent return, and following site specific response plans that include reporting and clean-up information in the event that there is an IR (See Appendix D, pp. 16-18).
- Condition 116 states "You shall monitor returns continuously during drilling operations. If a rig operator identifies a sustained loss in drilling fluid pressure or a loss of circulation during HDD or direct bore operations, you shall immediately cease drilling operations, shut the drilling mud pump down, and dispatch experienced observers to monitor the area in and around the drill path for signs of an IR of drilling fluid to the ground surface, wetland, or waterbody" (p. 16).
- Condition 118 of Wisconsin's WQC requires Enbridge to remove the discharged drilling mud "as thoroughly as possible" and dispose of it at an authorized location before demobilizing the drill rig (p. 16).
- Condition 6 requires Enbridge to implement Enbridge's ECP. As mentioned previously, Attachment H to the ECP includes site-specific HDD and DD plans. These plans include "plan drawings showing the locations of workspace and sensitive resources, a description of prevention measures that will be implemented for each HDD, a description of the actions that Enbridge would take to address an IR, and precautions that would be taken prior to resuming drilling operations following an IR" (See Appendix F - ECP, p. 23).

In sum, the information evaluated by the EPA does not demonstrate how IRs will result in discharges that will violate the Band's water quality requirements.

Destabilized soils: The Band asserts that "discharges of sediment from destabilized soils will cause the degradation of surface water quality…this includes activities associated with…HDD." (See Appendix A, p.21). The Band asserts that this would violate their narrative water quality criteria (See Appendix B, sections E.6.ii.e, E.6.ii.c, and E.7.iii), their designated uses requirements (sections F.1, F.2, and F.10), and their antidegradation requirements (section E.2). However, as discussed above in section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not demonstrate that discharges associated with destabilized soils and construction matting (including pollutants in such discharges) will reach the Band's waters in amounts that would result in violation of the Band's water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize soil disturbances from discharges related to HDD/DD:

- Condition 6 requires Enbridge to implement Enbridge's ECP (See Appendix D, p.4).
    - The ECP includes the EPP (Attachment D), which identifies numerous BMPs, including that "during construction of a drilled crossing, contractor personnel will monitor the pipeline route throughout the process" (p. 35) and "Enbridge requires the contractor to prepare and implement a contingency plan for inadvertent returns" (p. 35), that would be implemented during HDD and DD construction to reduce release the risk of IRs and other releases.
    - Attachments D (EPP) and P (Wetland and Waterbody Restoration and Post-Construction Monitoring Plan) to the ECP include provisions for site specific BMPs to reduce sediment transport throughout the project area, corrective actions during construction and restoration, and monitoring for turbidity post-construction.
- Conditions 16 through 41 detail requirements for sediment and erosion controls (Appendix D, pp. 5-8).
    - Condition 17 states "Construction shall be accomplished in such a manner as to minimize erosion and siltation into surface waters, including wetlands, and as specified in the ECP or approved pursuant to this WQC. The Project shall also be conducted in a manner that minimizes dispersal of sediment away from the Project site" (p. 5).
    - Condition 21 states "Erosion control measures as required by this WQC shall be in-place and effective during every phase of the Project and at the end of each working day" (p. 6).
    - Condition 22 states "Access roads that cross wetlands and waterways, and are in active use, shall be inspected regularly throughout the day to ensure appropriate

> BMPs are in place and effective in preventing sediment, debris, fluids, etc. from entering wetlands and waterways. Damaged or defective erosion and sediment control devices along access roads that cross wetlands or waterways shall be repaired or replaced immediately" (p .6).

In sum, the information evaluated by the EPA does not demonstrate that destabilization of soils associated with HDD will result in discharges that will violate the Band's water quality requirements.

Hydrology: The Band asserts that discharges associated with HDD including concerns that "…aquifer breaches, and other project activities will alter flow paths, groundwater levels, and groundwater-surface water interactions" ultimately affecting the hydrology of aquatic resources at the Reservation (See Appendix A, p. 25). The Band contends this would violate their narrative water quality criteria (See Appendix B, sections E.6.ii.d and E.6.ii.e), their designated uses requirements (sections F.2, F.5, and F.10), and their antidegradation requirements (section E.2). For example, the Band states that "Vaughn Creek, an Outstanding Resource Water, and four of her tributaries plus associated headwater wetlands will be impacted by the project". (See Appendix A, p. 23). Vaughn Creek is proposed to be crossed by HDD, "and her tributaries will be impacted by the placement of mats, grading of stream banks, trenching, dewatering and other activities within the proposed access road and workspaces of the project." (See Appendix A, p.23). An adjacent wetland "wird018e had seeps coming out of the eroded clay banks of the wetland which correspond with observations of artesian flow…as documented in the Subsurface Investigation Report Enbridge Line 5 Reroute MP 39 HDD Crossing – Vaughn Creek" (See Appendix A, p. 23). "This level of groundwater and surface water interaction in the Vaughn Creek area makes it even more likely that proposed activities will negatively impact surface water quality" (See Appendix A, p.23). Additionally, the Band states "… the current extensive microtopography, seeps and springs, and intact coniferous swamp ecosystem will be impossible to restore to pre-construction conditions resulting in long-term damage to the hydrology and soils of the wetland and a continual source of pollution to Tyler Forks (an Outstanding Resource Water)" (See Appendix A, p.29). Further, landscape conversion modeling in Vaughn Creek conducted by the Band's consultant showed a 1.02% increase in discharge rates from pre-disturbance conditions resulting in an increase of approximately 1.51 cfs at the Reservation boundary (See Appendix A, p. 24). As discussed above in section 1, "Overarching evaluation regarding all four types of discharges," the information provided by the Band and in the other documents reviewed by the EPA does not demonstrate that discharges associated with hydrological alterations resulting from HDD (including pollutants in such discharges) will reach the Band's waters in amounts that would result in violation of the Band's water quality requirements. Furthermore, the following conditions in Wisconsin's WQC would minimize discharges related to HDD/DD:

- Condition 11 requires that existing springs be characterized and "restored to pre-existing flow regimes and conditions…" (p. 4).

- Conditions 113-133 provide conditions relevant to these concerns (See Appendix D, pp. 16-18).
- Condition 208 specifically requires that sheet pilings "shall not be installed to a depth that would intersect known artesian aquifers…if new, discernable ground water flow is observed during or after installation of sheet piling at the existing ground level outside of the trench, it shall be reported immediately to the IEM and reported within 24 hours to the Department." (p. 26).
- Condition 6 requires Enbridge to implement Enbridge's ECP (See Appendix D, p. 4). The ECP includes the EPP (Attachment D), site specific HDD plans (Attachment H), and the WQMP which includes a groundwater monitoring well network referenced above (Attachment O).
    - According to the ECP, "based on geotechnical analysis, it is unlikely the proposed HDDs will encounter confined aquifers. However, if the HDD encounters a confined aquifer, the HDD installation methodologies can control/seal the drill path as drilling progresses. A contractor with experience in confined aquifer breeches will be on standby to respond in the event of a shallow confined aquifer breech." (See Appendix F - ECP, p. 28).
    - According to the WQMP, shallow groundwater elevation monitoring wells will be installed within select wetlands along the EL5 route to monitor for changes in hydrology (See Appendix F – ECP, Attachment O – WQMP, pp. 11-12).

In sum, the information evaluated by the EPA does not demonstrate that discharges associated with hydrological alterations resulting from HDD will violate the Band's water quality requirements.

Conclusion

Following the analysis described above, the EPA concludes that neither the Band's Objection Letter nor the other sources of information identified in Table 1 that EPA analyzed demonstrate that discharges from the EL5 project will affect the quality of the Band's waters so as to violate the Band's water quality requirements. As a result, the EPA is not recommending conditions for the Corps to include in the permit pursuant to CWA Section 401(a)(2). As noted above, the EPA did not have sufficient time in advance of the hearing to analyze, draw conclusions, or form recommendations with regard to the new information the Band submitted on May 6, 2025. However, the EPA has provided this information to the Corps for its consideration in making a permit decision.

Appendices

Appendix A – The Band's Objection Letter and Attachments

Appendix B – The Band's Water Quality Standards

Appendix C - St. Paul District Corps Draft Combined Decision Document and all associated/shared documents

Appendix D - Wisconsin Department of Natural Resources correspondence/shared documents

Appendix E – The EPA's correspondence/shared documents

Appendix F – Enbridge's correspondence/shared documents

Appendix G – Summary of literature citations from the Band's Objection