

BAD RIVER BAND OF LAKE SUPERIOR TRIBE OF CHIPPEWA INDIANS

CHIEF BLACKBIRD CENTER

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July 11, 2020

Ben Callan, WDNR
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RE: Comments Concerning the Enbridge Energy, LLC Line 5 Relocation around the Bad River Reservation regarding the WDNR Wetland and Water Crossing Permits and the EIS Scoping

Dear Mr. Callan,

As a sovereign nation with regulatory authority over downstream waters within the Bad River Watershed, on-Reservation air quality, and an interest in the use and enjoyment of the sacred waters of *Anishinaabeg-Gichigami*, or Lake Superior, pursuant to treaties we signed with the United States, we submit our comments related to the potential Line 5 Reroute around the Bad River Reservation proposed by Enbridge Energy, LLC (henceforth, “company” or “applicant”). The Bad River Band of Lake Superior Tribe of Chippewa Indians (henceforth, “Tribe”) is a federally-recognized Indian Tribe centered on the northern shores of Wisconsin and Madeline Island, where the Bad River Indian Reservation is located, but the Tribe also retains interest in ceded lands in Wisconsin, Michigan, and Minnesota. These lands were ceded to the United States government in the Treaties of 1837¹, 1842², and 1854³. The proposed Line 5 Reroute falls within these ceded lands where the Tribe has retained usufructuary rights to use treaty resources. In addition, it threatens the water quality of the Tribe’s waters downstream, over which the Tribe has regulatory authority as a sovereign nation and as delegated by the federal government under the Clean Water Act.

As staff of the Tribe’s Mashkiiziibii Natural Resources Department (MNRD) we have been charged with providing technical assistance to the Tribe in the protection, conservation, and management of Tribal natural resources, which includes those ceded resources. As such, we are submitting these comments on behalf of the MNRD of the Tribe in preparation for the pre-application meeting with the State Department of Natural Resources. These comments apply to the public comment period in connection with review of wetland fill permits, waterway impact and crossing permits WP-IP-NO-2020-2-X02-11T12-18-15, in the Potato River (Gaawaandag-zagaakwa-ziibii), Tyler Forks (Gaa-aangwasagokaag-ziibiins) and the Bad River (Mashkii-ziibii)

¹ 7 Stat., 536

² 7 Stat., 591

³ 10 Stats., 1109

Watersheds of Western Lake Superior, and the scoping of an Environmental Impact Statement. These comments do not represent a form of government-to-government consultation.

For each item, we will try to offer background information (or “context”) as it has been provided in the applicant’s materials or in other sources, then a subsequent comment. We request a specific and relevant response to our comments. Contact information is provided at the conclusion should items exist for which you require further explanation or discussion.

Context 1: The Wisconsin Department of Natural Resources (WDNR) has chosen to post for public comment the scoping of the EIS to close on July 11, 2020, the same day that public comment closes on the Wetland fill permit under Ch. 281.36 (Wis. Stats.) and Waterway impact and crossing permit(s) under Ch. 30 (Wis. Stats.).

Comment 1.1: As you’ll see throughout the rest of our letter and the attached memo from Alice Thompson, Lead Scientist at Thompson and Associates and a state-certified wetland delineator, we have numerous concerns with the information submitted by the company for the water-related permits. Additional information collected through the EIS is critical to fully understanding the potential impacts proposed for permitting under those permits. Thus, we do not understand why the public comment period for the wetland fill permit and the waterway impact and crossing permits are posted and being processed so far in advance of this critical information being collected and assessed as part of the EIS. We would urge the WDNR to postpone decision-making on the water-related permits until after the EIS has been finalized and to reopen another public comment period on those permits prior to any decision being finalized.

Comment 1.2: The MNRD fully supports all of the concerns and comments articulated by Alice Thompson in the attached *Review Of Enbridge Line 5 Wisconsin Segment Relocation Project* document, and request that the WDNR provide a specific and relevant response to her comments directly to the Tribe as well.

Context 2: Delineated wetland and watercourse information turned in by the Applicant is incomplete. Even the revised versions of the delineation map submitted by the Applicant on 4/1/20 and posted by the WDNR for public viewing on 4/20/20 contain multiple parcels where survey work has not been completed. In *Attachment B: Delineated Wetlands and Waterbodies* revised on 4/1/20, gaps where surveys have not been completed for the proposed pipeline corridor, access routes, or adjacent areas are identified on pages 4 – 14 and 16 – 48.

Comment 2.1: Though the extent of the areas yet to be surveyed is sometimes a very small area on certain maps, the fact that over 90% of the maps submitted are missing survey information to some extent clearly shows that the information available to the public during the public comment period is inadequate to assess the scope of the impacts associated with the proposed pipeline reroute, the access roads, and other workspaces and sites needed by the Applicant. The public comment period for the water-related permits should be suspended until such a time that the applicant can submit information that fills in the gaps along the proposed reroute.

Comment 2.2: Based on the GIS information shared by the applicant, we have calculated that 14.12 miles (34.4%) of the proposed route have not been surveyed per the shapefiles

contained in the GIS data 2019 zipped folder posted 3/26/20 on the WDNR Sharepoint Site. Using this same data we were also able to calculate that 374.07 acres of workspace (37.6%) have not been surveyed. Knowing that data covering approximately a third of the area and length of the route has not been made available to the public as part of the information available to review and comment on in the public comment process once again emphasizes the need for the WDNR to postpone decision making and reopen another public comment period after an EIS has been finalized.

Comment 2.3: It is our understanding that the proposed route might undergo additional changes as easements across all of the parcels proposed as part of the current route have not been secured by Enbridge, nor has the Public Service Commission made any decisions about allowing Enbridge to secure these parcels through eminent domain. Thus, the public should be given the opportunity to additionally comment both on EIS Scoping and on water-related permits whenever a change to the proposed corridor is made as additional concerns may arise from those changes.

Context 3: The applicant completed the majority of wetland delineations in September and October of 2019 according to the wetland delineation data available to us in the *Delineation Report Appendix D Wetland Data Sheets and Photos* documents dated March 25, 2020 from the WDNR website.

Comment 3.1: While wetland delineations completed within September and October are often within the growing season in Northern Wisconsin, and thus compliant with Army Corp of Engineers' wetland delineation standards, this timing is less than ideal for identifying certain plant species like orchids or spring ephemerals, which oftentimes die back completely by this time of the year. According to *Wildflowers of Wisconsin and the Great Lakes Region (Black and Judziewicz, 2009)* there are known occurrences of five threatened and six special concern orchid species in Ashland and Iron Counties. These species bloom sometime from May to August and oftentimes have leaves that die back when flowering or are only present when in flower. This is just more support that additional surveys need to be completed for the EIS that focus on rare and important species such as, but not limited to, orchids. These additional surveys should be data evaluated as part of the permitting for wetlands and watercourses.

Comment 3.1.1: Many of the plants mentioned above are endangered, threatened, or species of special concern and their presence associated with delineated wetland and waterbodies would mean that waterbody would meet the WDNR's definition of an Area of Special Natural Resource Interest (ASNRI). However, due to the timing of the Applicant's survey work they would have missed identifying these plant species, which has given them the ability to claim: "the Project crosses eighteen ASNRI-designated Priority Navigable Waters waterbodies" (p. 99, 4/1/20 EIR). This claim is oddly worded and misleading, appearing to only count the waterbodies that are *both* meeting the definition of an ASNRI and the definition of a Priority Navigable Water. As part of the EIS, additional vegetation surveys should be done along and within water resources adjacent to and crossed by the proposed pipeline at two additional times of the year—early and mid-growing season—and the number of ASNRI recalculated and the impacts to these important water resources closely assessed.

Comment 3.1.2: Additionally, conducting surveys during a time period when certain key species are unidentifiable skews the data of not only the Wetland Delineation but also of the wetland functional assessments, as it underestimates the quality and functional importance of the wetland on the landscape, and thus underestimates the impacts the proposed activity would have on these wetlands. This is just another reason that the comment period for the wetland permitting should be postponed and reopened once the EIS is completed and additional pertinent data is available to the public for their review before commenting. All wetland functional assessments and wetland impact documents should be revised after additional survey work has been completed.

Context 4: In the original Wetland Delineation Maps (*DelineationMaps_AttachC_Wetland Report_Full map set (Appendix I)*) dated as created on Sharepoint on February 14, 2020, the applicant provides an overview of potential wetland impacts along the reroute by providing polygons of delineated wetlands overlaid with large wetlands from the Wisconsin Wetland Inventory (WWI) and other water resource data. However, in the revised maps (*AttachB_aerial_full set revised 4-1-20*) dated as created on the Sharepoint on April 20, 2020, not only has the route changed, but the context is lost because only a smattering of WWI wetlands are included. Additionally, the Wetland Delineation Report data (*DelineationReport Appendix D wetland data sheets and photos part...*) were not redone to clearly sort the data still pertinent to the new route from the wetland delineation data only relevant to the old route.

Comment 4.1: Due to the poor organization of the data on the WDNR Sharepoint site and the unclear names of the documents, it is necessary for the public to open each document to see whether or not wetland and watercourse data is contained within—indeed, it came as a surprise that *AttachB_aerial_full set revised 4-1-20* was even a revision of the wetland delineation maps with such an unrelated name, not even containing the words “map” or “wetland” or “delineation”. Additional obfuscation is added by the company in leaving out the majority of WWI polygons and *all* of the WWI points from the maps, providing very little context for the water-rich environment that the line crosses. (See Map 1. This snapshot of the proposed Enbridge Line 5 Reroute is from the east portion of the route near the Tyler Forks. Orange circles and arrows draw attention to the concern highlighted in **Comment 4.1** in our letter, where we discuss the arbitrary inclusion of WWI polygons and how this results in confusion and loss of context within the landscape since: (1) not all adjacent WWI wetlands are included, even when wetland delineations identify portions of these wetlands (orange circles); and (2) only portions of WWI polygons within areas not yet surveyed are included in the map (orange arrows). Additionally, we aren’t sure why the strip of WWI between the delineated wetland and the WWI provided in the Enbridge data was excluded other than to be misleading. for specific examples.) Since the majority of the public does not have the ability to overlay the GIS provided by the company with the WWI, this creates an unnecessary hurdle for the public to have the basic data they need to submit informed comments and the WDNR should have addressed this issue before opening the public comment period. Thus, once again, this is another reason that the public comment period for the wetland and watercourse permits should be postponed until after the EIS is complete and all data is readily available to the public for their review.

Comment 4.2: The EIS should be clearly organized, containing data sorted in such a way that it is easy for the public to understand which data applies to the proposed route and which data related to alternative or previously looked at routes. This means, that all newly collected and previously submitted data should be reorganized into clearly named attachments or appendices to the EIS, and tables or other indices should be included that quickly allow for the cross-reference of information. If revisions occur, it should be clear which EIS sections or appendices have been revised and when the revision was completed, as well as clearly marking the old version as out of date.

Context 5: The current route of Enbridge Line 5 runs through the Bad River Reservation, the Tribe's treaty-reserved permanent homeland, and as a sovereign entity, the Tribe and the MNRD have had to address numerous environmental impacts that have arisen due to the existence of Line 5, including, but not limited to: impacts to the environment associated with "maintenance" of the pipeline including disturbance of wetlands and watercourses for digs conducted to look at anomalies in the pipe; disturbance of surface and ground water flow due to the installation of the pipe which has caused damage to the environment through erosion and sedimentation and increased the failure risk of the pipe when approximately 49 feet of the pipe was exposed (with approximately 40 feet unsupported from below) in 2019; the release of hazardous chemicals, damage to the environment, and an increased risk to health and human safety due the helicopter crash in 2018; the release of an unknown substance at one of the 2019 anomaly dig locations; three separate helicopter-related safety incidents (including the aforementioned crash, the accidental release of 7000 pounds of polymats while a helicopter was flying to the 2019 dig sites, and the loss of a fiberglass cover when flying equipment to the exposure location); the threat posed to the environment—include Lake Superior—by the pipeline interfering with the natural meandering of the Bad River; and, the increase in invasive species (both species richness and species distribution) due to their movement along the Line 5 corridor and spread by vehicles using this corridor. (For more detailed information about these environmental impacts, see our brochure at: http://www.badriver-nsn.gov/wp-content/uploads/2020/02/202002_NRD_EnbridgeLine5_Brochure.pdf).

Comment 5.1: Many of the environmental impacts from the line that the Tribe has seen within the boundaries of the Reservation are not unique or isolated incidents, and easily could be issues that arise along the proposed reroute if the project were to be permitted. One impact that we have seen along the Enbridge pipeline and other pipelines on the Reservation, that also will likely cause environmental degradation along the reroute, is the alteration of surface hydrology and groundwater flow due to the installation of the pipe. Surface hydrology changes in response to alteration of topography (for example, with poor restoration/interruption of surface flow patterns and drainages, the grading and cutting of steep slopes, and the installation of water bars). Surface hydrology is also affected by changes to groundwater flow due to factors such as removal of bedrock for pipe installation, disturbance of natural horizons in soils, and development of an underground conduit for water due along the length of the pipeline due to poor backfilling. These changes to surface hydrology can range from moderate to more severe and include, but are not limited to, the changes in the size of drainage basins and watershed boundaries and the erosion of soils and the exposure of the pipeline.

Given the instability of soils in the Bad River Watershed due to previous land use and landscape changes, increased frequency of precipitation events, and ongoing disruption

from development activities such as the proposed project, it is highly likely that erosion issues that arise along the reroute will require more than basic maintenance. Such was the case at the Denomie Creek tributary area (also referred to as Slope 18), where the scope of the proposed “fix” continued to expand due to the company’s inadequate assessment of the altered hydrology. In this case, the company did not take the time to include the environmental insights offered by the Tribe or collect an adequate amount of data about the environmental conditions of the site upon which to base a successful engineering design. It is just as likely that any proposed “fix” or response to environmental impacts from Enbridge and their contractors may be just as riddled with failure and problems as the “fix” that Enbridge implemented on the Reservation at Slope 18.

Comment 5.1.1: The WDNR must consider these potential ongoing environmental impacts (and the others the Tribe has experienced) when evaluating water-related permit applications, especially with the increased number of stream, river, and wetland crossings that the proposed reroute will entail. It is especially critical that these concerns are assessed in the areas where the reroute falls within the transitional area between the red clay plain and the sandier upper watershed soils, as this area is known to be unstable due to factors such as the increase frequency of groundwater discharges. Such assessment is also critical in areas with steep slopes, defined as slope greater than 15%, not 20% as defined by the company. Additionally, if the water-related permits were to be issued, the WDNR should require that all mapped and unmapped drainages must be restored to their original contours, appropriate backfilling occur in areas where bedrock has been removed to ensure no changes to groundwater flow, and the boundaries of surface water catch basins are not altered by the installation.

Comment 5.1.2: The Scope of the EIS should include an evaluation of the direct, indirect, and cumulative impacts of the Line 5 pipeline to the environment along its current route (as much of this route will remain) and evaluate how these impacts might reoccur along the proposed reroute and how they would directly, indirectly, and cumulatively impact the environment. As necessary, this should include additional data collection and analysis, including, but not limited to: the location and extent of steep slopes ($\geq 15\%$), changes to the landscape as a result of the 2016 and 2018 floods (which could partially be accomplished looking at LiDAR data collected before and after these events), surface flow and drainage patterns along the reroute, identification of streams missing from the National Hydrography Dataset and the WDNR 25K Hydro Layer, baseline monitoring to ensure the correct classification of streams into perennial, intermittent, and ephemeral categories, baseline monitoring to evaluate existing uses supported by the surface waters, an assessment of the fluvial geomorphological evolution of watercourses crossed or proposed to be crossed by the pipeline to be used to assess the adequacy of the depth and width of proposed crossings (as well as identifying other potential issues), and other data necessary to fully evaluate impacts of the proposal.

Context 6: In Section 6.4.2.1 General Wetland Impacts of the Line 5 Wisconsin Segment Relocation Project Environmental Impact Report (revised March 2020, showing as document *Env. Impact Report (EIR)_revised 4-1-20.pdf* on the WDNR Sharepoint) the Company claims

“The primary impact of pipeline construction and right-of-way maintenance activities on wetlands will be the temporary removal of wetland vegetation. Construction will also temporarily diminish the recreational and aesthetic value of the wetlands crossed.” And “Clearing of wetland vegetation will also temporarily remove or alter wetland wildlife habitat.” (p. 101) Additionally, the company provides Table 6.4.2-1 Summary of Project Wetland Impacts which claims 109.0 acres of temporary wetland impacts, 29.6 acres of permanent wetland conversion, and <0.1 acres of permanent wetland fill.

Comment 6.1: Of the three wetland functions that Enbridge has chosen to identify as impacted (recreation, aesthetic, and wildlife habitat) they say that each impact will be temporary. However, there is estimated to be over 27 acres of forested wetland permanently converted by the project. Permanent conversion of forested wetlands to emergent wetlands are a *permanent* impact to recreation, aesthetic, and wildlife habitat function, not a *temporary* impact. Though some of the same recreation activities can occur in emergent versus forested wetlands, for example, if those forested wetlands have black ash or northern white cedar that is destroyed by the pipeline construction, then those are two resources that are no longer available for human use (a.k.a., recreation). Additionally, conversion of forested to emergent wetlands impacts aesthetics permanently as the two do not look anything alike and a cut corridor through an otherwise forested landscape definitely impacts aesthetic. Forested wetlands hold greater wildlife diversity than upland forests or emergent wetlands (Welsch et al., n.d.). The conversion of forested wetland to emergent wetland will have a negative impact on wildlife diversity. Living and dead trees in forested wetlands provide food and shelter for arthropods which serve as the building block of a food web including Bineshiinhyag (Birds) and Apakwaanaajiiinhyag (bats). Bineshiinhyag require trees for nesting, perching, cover, and food. “About 230 out of 686 species, depend on wetlands for one or more of their life requirements,” according to the USFS report on forested wetlands (Welsch et al., n.d.⁴).

Comment 6.1.1: It is not clear by the way the information is presented in Table 6.4.2-1 if the acreages of impacts attempt to take into account the small WWI points or just the WWI polygons when estimating the wetlands that might be impacted. This question arises because the small wetland points do not appear in the GIS data nor the revised wetland maps. Additionally, it is not clear whether these acreages are only what falls within the proposed workspaces or acreages based on what is in the survey corridor identified on the map. Before completing the public comment period and issuing any water-related permits, wetlands along the proposed corridor should be entirely delineated and the wetland impacts clearly articulated for public review.

Comment 6.1.1: The EIS should clearly articulate the direct, indirect, and cumulative impacts on wetlands and water resources along the proposed route, including articulating how wetland impacts have been minimized or avoided by

⁴ Welsch, D. J., Smart, D. L., Boyer, J. N., Minkin, P., Smith, H. C., & McCandless, T. L. (n.d.). Forested Wetlands Functions, Benefits, and the Use of Best Management Practices (Rep.). USDA USFS.

the applicant. This should include an evaluation of potential impacts to all functions provided by wetlands along the proposed route.

Comment 6.2: There should be several sets of wetland delineation maps of the corridor, each clearly showing different aspects of how the wetlands will be impacted and the extent of those impacts. For example, a set of maps should clearly portray wetlands impacted along the line by temporary, permanent conversion, and permanent fill, whereas another map should show wetlands by the function they provide, and another should show wetlands with T/E/SC species and/or invasive species. Understanding the geographic scope of these different aspects of the wetlands help understand the impacts of the proposed project and whether certain important or high value wetlands might be able to be avoided. This information should be provided to the public for use in commenting on the wetland and water crossing permits and included in the EIS.

Comment 6.3: Only after all wetland impacts are clearly and accurately defined should determinations be made about wetland mitigation requirements for the proposed project. The applicant should be required to mitigate for wetland impacts at a minimum of 8 acres for every 1 acre of permanently filled/dredged wetland and 4 acres for every 1 acre of permanently converted wetlands, though the ratios should become even higher if any wetlands of high quality or providing high functional values need to be compensated for.

Context 7: On page 104 of the revised EIR (dated 4/1/20 in the WDNR Sharepoint), the applicant references the *2019 Habitat Assessment Report* turned over directly to the WDNR.

Comment 7.1: The WDNR should turn over the 2019 Habitat Assessment Report and all other data submitted by the applicant to the Bad River Tribe. This information is critical for the Tribe to adequately evaluate the possible impacts of this project pursuant to our authority as a downstream sovereign with federally-approved Water Quality Standards and so the Tribe can assess possible impacts to our treaty-reserved usufructuary rights.

Context 8: Oil transported by Line 5 contributes to existing CO₂ emissions into the atmosphere and exacerbate global climate change. Potential impacts of climate change have been well documented for Wisconsin through the work of the Wisconsin Initiative on Climate Change Impacts (WICCI) including, but not limited to, increases in the frequency and magnitude of heavy rainfall events.

Comment 8.1: The Scope of the EIS should examine the effects that this proposal will have on carbon emissions as well as the effect on the climate change adaptation strategies that have been suggested for Wisconsin and the Lake Superior region.

Comment 8.2: It is unmistakable that the region faces the prospect of extreme storm events. As evidence in *Figure 1*, the local region has experienced extreme events in the past, as it faced them again during the flood of 2016 (*Figure 2*), which wrought millions of dollars in damages to roadways and infrastructure. Due to the effects of climate change, the region is expected to see an increase in storm events of over 3" of rain within 24 hours three to five times more frequently per decade. Any infrastructure present within the region must take into account these changes or they will face the possibility of catastrophic failure and devastating impacts. The Scope of the EIS should examine the effects climate change impacts will have on the proposal and alternatives evaluated to

ensure direct, indirect, and cumulative impacts are accounted for. The WDNR should include an evaluation of climate change impacts into any water-related permit decisions.

Context 9: Legal and Regulatory Requirements. In 1971, the Legislature adopted the Wisconsin Environmental Policy Act (WEPA), Section 1.11, Wis Stats., which provides in part:

1.11 Governmental consideration of environmental impact. The legislature authorizes and directs that, to the fullest extent possible:

(1) The policies and regulations shall be interpreted and administered in accordance with the policies set forth in this section and chapter 274, laws of 1971, section 1; and

(2) All agencies of the state shall:

(c) Include in every recommendation or report on proposals for legislation and other major actions significantly affecting the quality of the human environment, a detailed statement, substantially following the guidelines issued by the United States council on environmental quality under P.L. 91-190, 42 USC 4331, by the responsible official on:

1. The environmental impact of the proposed action;

2. Any adverse environmental effects which cannot be avoided should the proposal be implemented;

3. Alternatives to the proposed action;

4. The relationship between local short-term uses of the human environment and the maintenance and enhancement of long-term productivity;

5. Any irreversible and irretrievable commitments of resources that would be involved in the proposed action should it be implemented; and

6. Such statement shall also contain details of the beneficial aspects of the proposed project, both short term and long term, and the economic advantages and disadvantages of the proposal.

WEPA is modeled after its federal counterpart, the National Environmental Policy Act (NEPA), 42 USC § 4321 et seq, and the Legislature has mandated that the impact statement is to follow guidelines that have been developed by the United States Council on Environmental Quality under NEPA, which include consideration of environmental impacts as well as alternatives to a proposed project or action. See 40 CFR §§1500–1508, some of the requirements of which are outlined immediately below.

NEPA requires federal agencies to “utilize a systematic, interdisciplinary approach which will insure the integrated use of natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man’s environment.” 42 U.S.C. § 4332(A); 40 C.F.R. § 1502.6. Regulations promulgated by the Council on Environmental Quality (CEQ) to govern the criteria and procedures to be applied by federal agencies when they review proposed projects under NEPA require agencies to “insure the professional integrity, including scientific integrity, of the discussion and analyses in environmental impact statements.” 40 C.F.R. § 1502.24. Accordingly, agencies may not selectively ignore consequences or use discredited science.

An EIS must evaluate the effects of the proposed project. “Effects and impacts as used in these regulations are synonymous. Effects include ecological . . . , aesthetic, historic, cultural, economic, social, or health [effects], whether direct, indirect, or cumulative.” 40 C.F.R. § 1508.8.

In addition to this guidance provided by federal regulations, the Department promulgated regulations at Chapter NR 150, Wis. Adm. Code, regarding environmental analysis and review procedures. Those regulations acknowledge another reason for the Department to follow federal requirements and precedents in preparing an EIS in response to review of wetland fill permits, waterway impact and crossing permits WP-IP-NO-2020-2-XO2-11T12-18-15, in the Potato River (Gaawaandag-zagaakwa-ziibii), Tyler Forks (Gaa-aangwasagokaag-ziibiins) and the Bad River (Mashkii-ziibii) Watersheds:

Recognizing the government-to-government relationship which the United States has with the Bad River Band of the Lake Superior Ojibwe, the United States will play a key role in this undertaking through a Federal agency. Since the State has not been delegated the authority from United States to initiate consultation, and a responsible Federal Agency and the Bad River Band of the Lake Superior Tribe of Chippewa Indians will be directly managing any activity that results in: threats to the reservation of permanent homes, ancestral sites, and uses and meanings in the Potato River (Gaawaandag-zagaakwa-ziibii), Tyler Forks (Gaa-aangwasagokaag-ziibiins) and the Bad River (Mashkii-ziibii) Watersheds in the Treaty of 1854; usufructory rights to hunt, fish and gather in ceded territories pursuant to the Treaty of 1842; discharges (including deposits and structures) into waters of the United States pursuant to Section 404 of the CWA; Section 10 of the Rivers and Harbors Act of 1899; and cultural and historic resources pursuant to Section 106 of the National Historic Preservation Act 36 CFR 800.2(c)(4) we included US EPA Staff and US ACOE Staff in delivery of this Letter.

Comment 9.1: Thus, NR 150.04(2)(c) directs the Department to develop agreements and understandings with federal agencies, where possible, “to minimize duplication in meeting environmental review requirements and establish a mechanism for resolution of interagency conflict.”

Context 10: The size and complexity of the proposed action or project, and the characteristics of its site or location, and of the surrounding region which may be subject to its impacts, can be very important in determining the nature and extent of impacts on the environment, including the human environment that may be affected by changes to the physical environment. The magnitude of the activity being proposed –

fragmenting some of the most intact, forested landscapes in the Watersheds, cutting across steep slopes and through rivers, streams and wetlands, putting numerous water resources at risk on increased sedimentation and harm to sensitive habitats and fisheries in the headwaters of the Potato River (Gaawaandag-zagaakwa-ziibii), Tyler Forks (Gaa-aangwasagokaag-ziibiins) and the Bad River (Mashkii-ziibii) Watersheds mandate greater scrutiny of the potential impacts.

Comment 10.1: The location of the proposed project within ceded territory, and just upstream and upland from the Bad River Reservation, mandates particular scrutiny of the cultural, human, social, and socioeconomic impacts of the project, as well as of impacts on the environment and on effective conservation management of natural resources. Millions of dollars of public and private funds have been invested over the years in preserving and protecting the extraordinary ecological resources present in the Bad River Kakagon Sloughs and Potato River (Gaawaandag-zagaakwa-ziibii), Tyler Forks (Gaa-

aangwasagokaag-ziibiins) and the Bad River (Mashkii-ziibii) Watersheds, safe drinking water and waste water infra structure, and the Lake Superior Fishery, and the inconsistency between state, federal, local and tribal policies and plans regarding preservation of those resources and any proposal for the rapid industrialization of the Potato River (Gaawaandag-zagaakwa-ziibii), Tyler Forks (Gaa-aangwasagokaag-ziibiins) and the Bad River (Mashkii-ziibii) Watersheds need to be addressed.

Comment 10.1.1: An EIS must evaluate “[p]ossible conflicts between the proposed action and the objectives of Federal, regional, State, and local . . . land use plans, policies and controls for the area concerned.” 40 C.F.R. § 1502.16(c). “Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law.” 40 C.F.R. § 1506.2(d).

Comment 10.2: That scrutiny requires ecological and human health risk assessment computational oil spill modeling to assess variability of predicted movement, behavior and weathering, and potential direct effects and indirect effects to connected uses downstream associated with the releases of oil or liquid natural gas.

Comment 10.3: That scrutiny requires incorporating and evaluating case studies describing the emergency response, recovery and restoration, and resources damage assessments implemented after an emergency occurred associated with the applicant’s releases at paragraphs 71 through 87 of the First Amended Complaint, Case: 3:19-cv-00602 and enclosed with this Letter.

Comment 10.4: That scrutiny requires incorporating and evaluating case studies describing the emergency response, recovery and restoration, and resources damage assessments implemented after an emergency occurred associated with the releases at paragraphs 103 through 111 of the attached First Amended Complaint, Case: 3:19-cv-00602 and enclosed with this Letter.

Context 11: Treaty Rights. Treaty Rights and uses necessarily require the separate and independent development under the United States trust responsibility to the Tribe to document an understanding of the Treaty of September 30, 1854 including:

Comment 11.1: research, community interviews, analysis of use of Ojibwe language for place names and uses, and reports with environmental impact statement objectives to communicate reduction of biodiversity and loss of use and identity of place for subsistence uses, medicine and prayer; and

Comment 11.2: research, community interviews, and reports with environmental impact objectives and communicate water trail transport of people and goods in commerce in the Potato River (Gaawaandag-zagaakwa-ziibii), Tyler Forks (Gaa-aangwasagokaag-ziibiins) and the Bad River (Mashkii-ziibii) Watersheds, Chippewa Flowage and Lac Courte Oreilles Watersheds.

Context 12: Federal policies include Title VI of the Civil Rights Act, and its implementing regulations which prohibit recipients of federal funds, including state agencies such as the Department, from taking actions that have the intent or effect of discriminating on the grounds of race, color, or national origin. 42 U.S.C. § 2000d; 49 C.F.R. § 21.5. Serious consideration must be given to whether the Bad River Tribe, and the Bad River Reservation lying downstream and

down land from the proposed sites will be disproportionately adversely affected by this proposed project, while any benefits will accrue to others, contrary to Title VI.

Comment 12.1 This serious consideration has to be documented separate of the Department and United Nations Special Rapporteur on the rights of indigenous peoples led because the State takes the position that it is with authority to impose and collect a tax and upon Reservation land owned in fee status by the Band or its members and remove the Band or its members from land.⁵

Context 13: Emergency. The Department does this review during an unprecedented public health crisis. On March 11, 2020, the World Health Organization declared the outbreak of COVID-19 to be a pandemic. COVID-19 is an infectious respiratory disease caused by a novel coronavirus named SARS-CoV-2 (“coronavirus”). The symptoms of COVID-19 can range from no apparent affects, to mild coughing and fever, to severe respiratory distress, weakness, and death. The coronavirus has spread globally, including to all fifty of the United States, causing COVID-19 in all of them.

According to public health guidelines published by the Centers for Disease Control and Prevention (“CDC”):

COVID-19 spreads mainly among people who are in close contact (within about 6 feet) for a prolonged period. Spread happens when an infected person coughs, sneezes, or talks, and droplets from their mouth or nose are launched into the air and land in the mouths or noses of people nearby. The droplets can also be inhaled into the lungs. Recent studies indicate that people who are infected but do not have symptoms likely also play a role in the spread of COVID-19.

It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or eyes. However, this is not thought to be the main way the virus spreads. COVID-19 can live for hours or days on a surface, depending on factors such as sunlight, humidity, and the type of surface. Social distancing helps limit opportunities to come in contact with contaminated surfaces and infected people outside the home.

Social Distancing, Ctrs. for Disease Control & Prevention (May 6, 2020).

COVID-19 is of concern to the Tribes because many tribal members are at high risk of severe illness or death from COVID-19. The Tribes has 7,800 enrolled members, with 2,400 members living on or near the Reservation. COVID19 puts at significant risk the tribal elders living on or near the Reservation who hold significance, knowledge, and roles in the Tribes’ culture and religion. About 1,400 tribal members are diabetic and many other tribal members living on or near the Reservation suffer from underlying conditions that put them at higher risk of severe illness and death if they are exposed to this coronavirus.

The Tribes’ health care facilities are not equipped to respond to the spread of COVID-19 within the Reservation. Those facilities will be overwhelmed and unable to care for tribal members in the event of an outbreak on the Reservation. Nobody knows how long it will take to develop a

⁵ Lac Courte Oreilles Band of Lake Superior Chippewa Indians of Wisconsin et al v. Tony Evers, et al Case: 18-cv-992

vaccine for COVID-19. Until such a vaccine is developed and widely available, the Tribes need to protect the Reservation from an outbreak with mitigation strategies to minimize the spread and impacts of COVID-19.

Consequently, the defendants' field and survey activities and construction activities threaten the Tribes and its members with impacts related to the potential spread of COVID-19 by bringing large numbers of workers from out-of-state into communities in and around the Reservation. These impacts include the potential for community spread of COVID-19 onto the Reservation, infections of COVID-19 among tribal members, including those with underlying conditions and tribal elders, and the overwhelming of the Reservation's health care system and associated consequences.

Comment 13.1: suspend review of wetland fill permits, waterway impact and crossing permits WP-IP-NO-2020-2-X02-11T12-18-15 during the ongoing COVID-19 pandemic and document the Department's review of evaluation of the potential health impacts of field work and survey activities and construction activities on the Tribes.

Comment 13.2: The COVID-19 pandemic has also had unprecedented economic effects that require independent reports on alternatives and necessity. Any prior studies did not, and could not, analyze the potential impacts on oil prices from the Covid-19 pandemic, which created dramatic and likely long-lasting price changes impacting oil production and transport. An EIS must meaningfully evaluate alternatives to a proposed action. 42 U.S.C. § 4332(C)(iii). An EIS must "rigorously explore and objectively evaluate all reasonable alternatives" and . . . [d]evote substantial treatment to each alternative considered in detail . . . so that reviewers may evaluate their comparable merits." 40 C.F.R. § 1502.14(a). This analysis will be irreparably skewed by a failure to adequately consider either reasonable alternatives or the consequences of the proposed action. The EIS must include the alternative of no action, must include reasonable alternatives not within the lead agency's jurisdiction, and must include appropriate mitigation measures not already included in the proposed action or alternatives. 40 C.F.R. §§ 1502.14(c), (d) and (f). 40 C.F.R. §§ 1502.14(c), (d) and (f) includes the separate and independent analysis of:

Comment 13.2.1: Sharing capacity in other companies existing pipelines and negating the need; and

Comment 13.2.2: Locating this pipeline with an existing pipeline of defendants or other existing right of way of defendants negating the need.

Context 14: Indigenous women and girls protection. The field work and survey activities and construction activities across federal lands will require the construction of several temporary housing camps used to house construction workers and lodging. These housing arrangements will be located near Indian reservations—and near communities with large Native American populations. There is an inescapable connection between these man camps, which bring in large numbers of young, typically non-Indian men into rural areas, and increased rates of domestic violence, sexual assault, rape, and sex trafficking in the areas around these arrangements. These impacts fall disproportionately on native women and girls. This has severe and tragic impacts on native women and girls and native communities more broadly, and it strains local and tribal law enforcement capabilities. These impacts are "cultural, economic, social, [and] health" effects that must be considered in the environmental review process. 40 C.F.R. § 1508.8.

Comment 14.1: These impacts necessarily require the separate protections under the United States' trust responsibility to the Tribe.

We would like to note, that many of our concerns have been raised before in response to the idea of rerouting Line 5 through the upper portions of the Bad River Watershed. In addition, there are many concerns raised by landowners along the proposed reroute path who do not wish to lease their land to the Company, nor have it taken by eminent domain, if the PSC and the WDNR were to permit the pipeline through this location. We consider that issuing a permit for the Enbridge Line 5 Reroute to be gross negligence on the part of the WDNR in light of all the issues with the proposed project raised by us and others especially as we find the majority of data needed to fully assess impacts had not yet been made public and/or collected. Thus, we urge you to refrain from issuing any permits knowing that the transport of oil through Line 5 threatens four of five of the Great Lakes, provides very little direct benefit to the communities through which it passes when balanced against the potential risk it inherently has, and is a redundancy when the products transport by Line 5 could be transported by other pipelines to get from Superior, WI to Sarnia, Ontario.

In addition, we know that other concerned entities such as other Tribes, the Great Lakes Indian Fish and Wildlife Commission (GLIFWC), the League of Women Voters, and other groups and citizens have expressed concern over the proposed project and information submitted, pointing out additional specific inadequacies. Due to time constraints, we have chosen to not reiterate all of their concerns, however, we would like to specifically note that we are in concurrence and support their specific concerns and request that specific responses be made to them as well.

We would also like to draw your attention to the enclosed letter from Edith Leoso, Bad River's Tribal Historic Preservation Officer, concerning consultation pursuant to Section 106 of the National Historic Preservation Act.

We would like to thank you for your time and consideration and look forward to your response. Please contact me, or Jessica Strand, our Environmental Specialist, at environmental@badriver-nsn.gov or 715-685-8860 with any follow-up questions you may have.

Sincerely,

Naomi Tillison
Natural Resources Director
nrdirector@badriver-nsn.gov
715-292-0197
Bad River Band of Lake Superior Tribe of Chippewa Indians

Cc: Mike Wiggins, Jr., Bad River Tribal Chairman
Esteban Chiriboga, GLIFWC Environmental Specialist

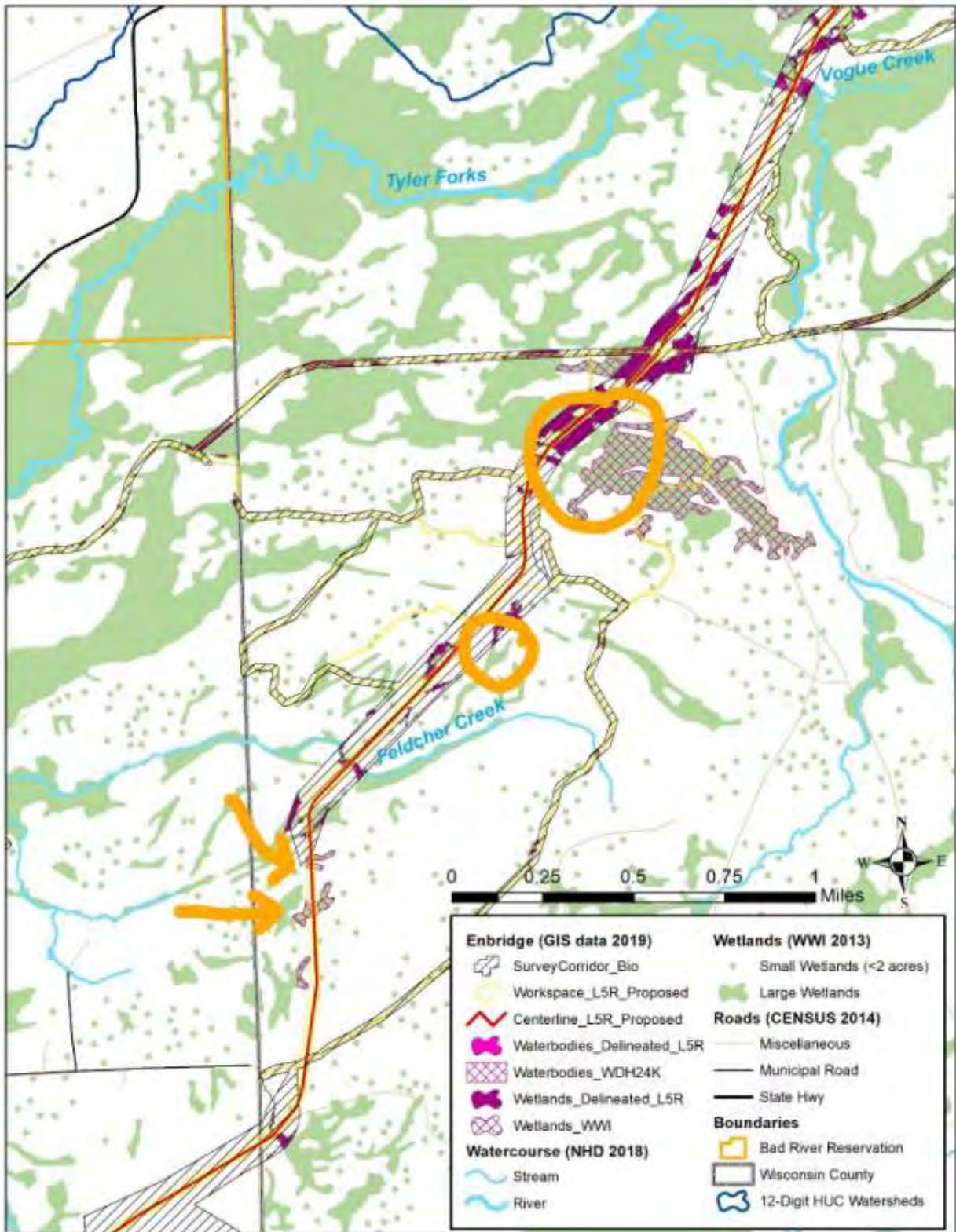
Paul Winters, US Environmental Protection Agency
Barbara Wester, US Environmental Protection Agency
Bill Sande, Army Corps of Engineers
MNRD File

Enclosed:

Figures and Maps
Review of Enbridge Line 5 Wisconsin Segment Relocation Project (Thompson, 2020)
First Amended Complaint Case: 3:19-cv-00602
THPO Comment Letter on Proposed Enbridge Line 5 Relocation



Figures and Maps



Map 1. This snapshot of the proposed Enbridge Line 5 Reroute is from the east portion of the route near the Tyler Forks. Orange circles and arrows draw attention to the concern highlighted in **Comment 4.1** in our letter, where we discuss the arbitrary

inclusion of WWI polygons and how this results in confusion and loss of context within the landscape since: (1) not all adjacent WWI wetlands are included, even when wetland delineations identify portions of these wetlands (orange circles); and (2) only portions of WWI polygons within areas not yet surveyed are included in the map (orange arrows). Additionally, we aren't sure why the strip of WWI between the delineated wetland and the WWI provided in the Enbridge data was excluded other than to be misleading.



Figure 1. Clipping from Ashland Daily Press circa 1946 detailing damages wrought by a severe storm.

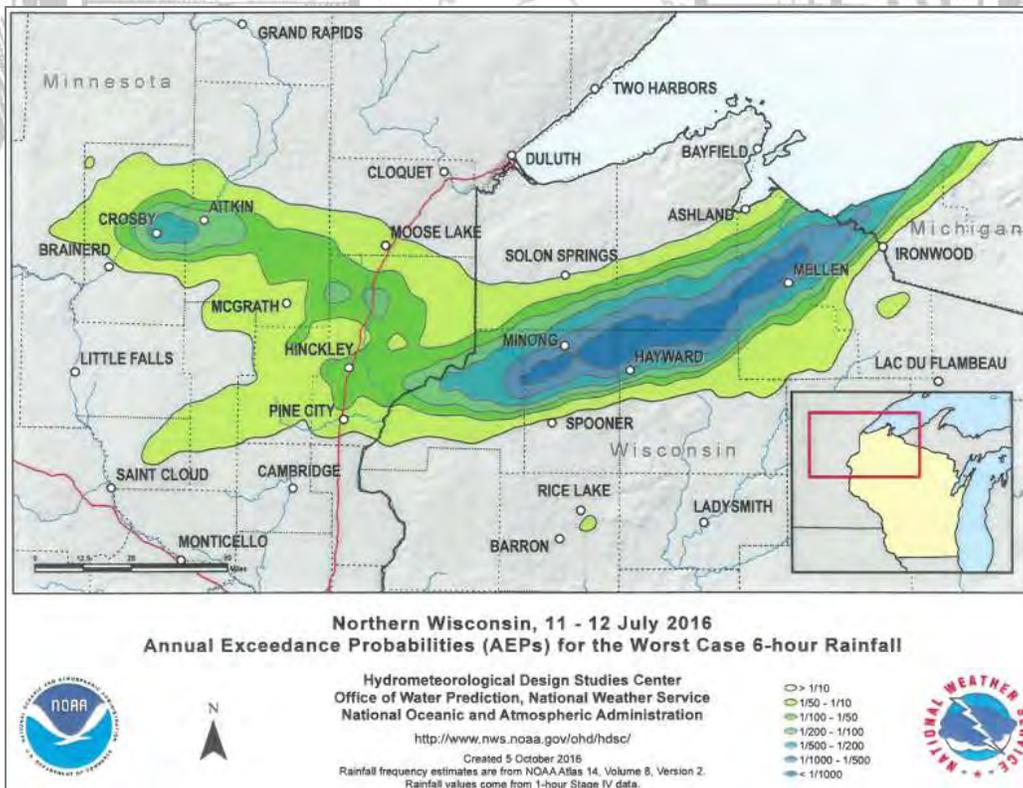


Figure 2. Data from the National Oceanographic and Atmospheric Administration for the July 2016 storm.



Alice Thompson, MS, SPWS

Thompson & Associates Wetland Services. LLC
1514 Menomonee Ave.
South Milwaukee WI 53172
414-571-8383

July 9, 2020

REVIEW OF ENBRIDGE LINE 5 WISCONSIN SEGMENT RELOCATION PROJECT

Alice Thompson of Thompson and Associates Wetland Services, LLC was retained by the Mashkiziibii Natural Resources Department (NRD), formerly the Bad River Natural Resources Department to review the wetland data provided by Enbridge in the relocation project, located in Ashland and Iron Counties, Wisconsin. The proposed re-route skirts the Bad River Reservation on the west, south and east sides to join an existing pipeline route. The re-route is in a very water and wetland rich area of the state crossing major waterways and huge wetland complexes that all drain towards the Bad River Reservation to outfall into Lake Superior. The Bad River also flows towards Copper Falls State Park and State Natural Area.

I performed a desktop review of the permit data. Although I was unable to field review these areas due to the limitations of time and the current pandemic, I have assisted the NRD in field reviewing wetlands in Iron and Ashland County public land just to the south in multiple field seasons, as well as wetlands on red clay plain within the Bad River Reservation.

The project area was delineated by Enbridge consultants in September and October of 2019 and presented in Delineation Report Appendix D (1-22 3/25/2020), with Delineation Maps Attachment C Wetland Report Full Map Set (2/14/2020).

MAP ISSUE: The delineation data and maps are now superseded by a new map set that was downloaded on 4/20/2020. It is not named "Delineation Maps revised" or "Wetland Maps revised" - it is called "Attachment B Aerial Full Set revised 4/1/2020". Any public reviewer would likely not even open the map set as the name does not indicate wetlands, waterways, or delineation, I nearly missed it myself. This is very misleading and not transparent. The maps have dropped out former alternate routes- most notably the southerly route south of Mellen and the Bad River crossing. The new maps have different

areas displayed, do not start and stop in the same places the old maps did (are not in the same frame as the previous). There is no table that I can see that compares map numbers from one set to another.

Both sets of wetland maps are lacking in the WWI points “wetlands too small to identify”. This layer is not visible. In this area of the state that is heavily forested the wetland points often reveal much larger systems on the ground due to the difficulty of visualizing water on aerial photos in forests. The lack of these wetland dots on the map is an immediate red flag that needs correction. All WWI dots “wetlands too small to delineate” should either have a corresponding wetland data set or a “no wetland” data point. Without the mapping dots turned on it is impossible to perform a desktop review of these features. An example of this is shown below under the heading White River.

The revised maps have many new areas that require wetland delineation; thus, the wetland delineation data set is not complete. This is discussed below in the section Data Gaps. A critical problem with the new maps is that almost all the Wisconsin Wetland Inventory polygons have been removed from this revised map set. The only WWI polygons remaining are in areas that have yet to be field delineated, however even that is not consistent as is shown below and in the White River example.

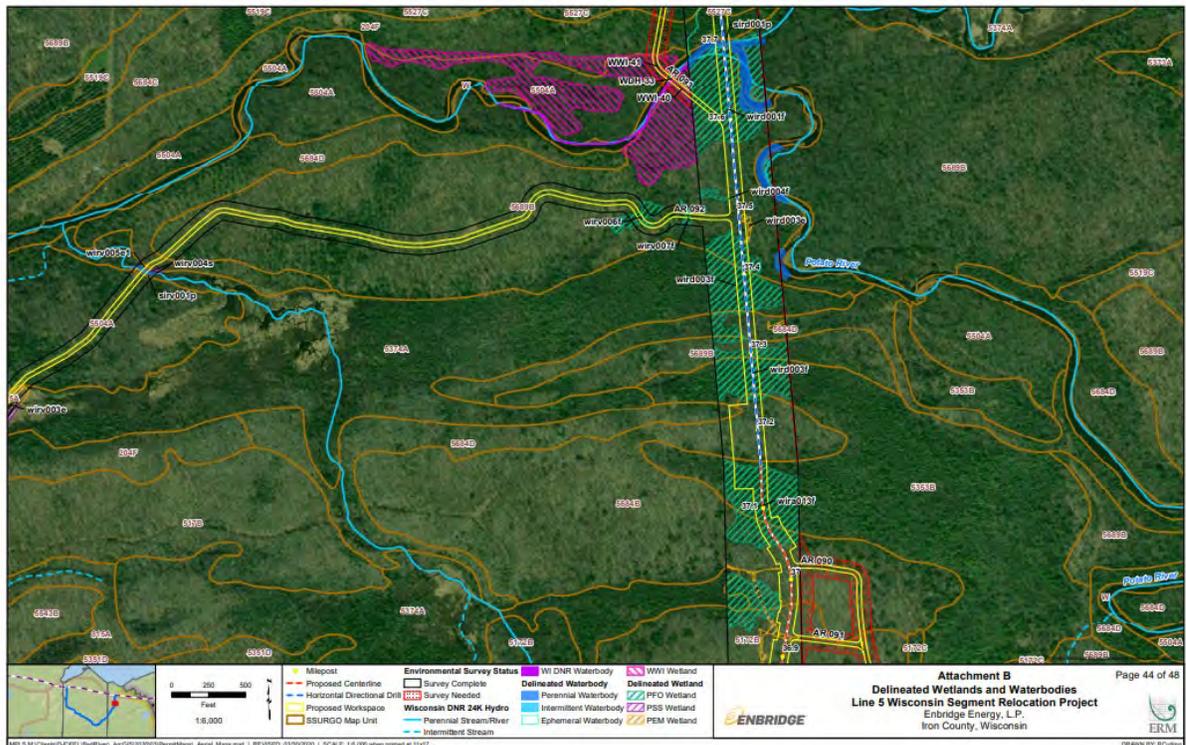
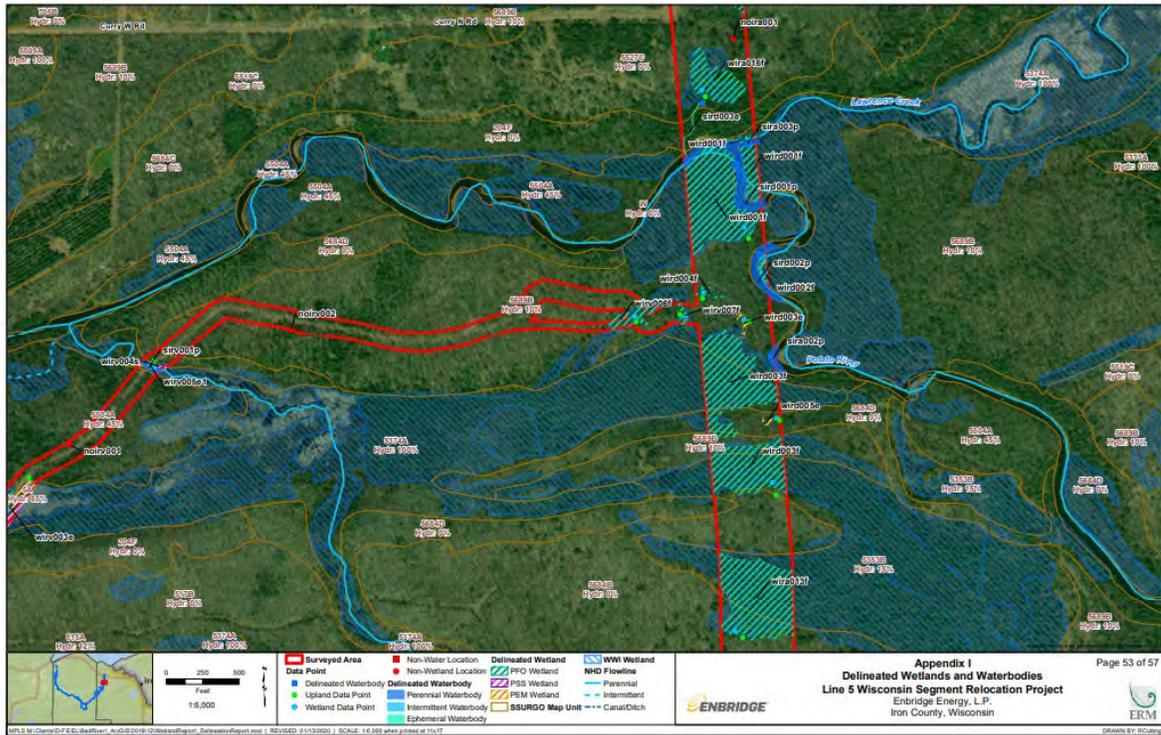
Why does this matter? Compare the example in the two maps below. The first map below is at the Potato River crossing where the Lawrence River joins the Potato at the top of Map 53 of 57 (Appendix I, 1/13/2020). Note that significant wetlands are present within and without the project corridor. These wetlands: wira013f, wurd003f, wurd002f, and wurd001f, wira016f are forested, white cedar are present, mucky soils, and “seepage” are included in the data sets. High bedrock is found within this set of wetlands (wurd003f). This is a significant wetland area that is represented within the corridor by data, and outside the corridor by WWI polygons. The polygons illustrate that we know that the wetlands are in a landscape rich in wetlands and water- just by visualizing this map.

The second map below is found in the newest revision “Attachment B Aerial Full Set revised 4/1/2020”. This map is page 44 of 48 maps and revised 3/30/2020. The WWI polygons have been removed that show the context that the wetlands on the corridor exist within and are connected to. The WWI polygon 5504A is shown in the northwest portion of the map as a new access road (AR093) is proposed to cross it and has yet to be delineated. However, the new access road on the southeast side (AR 090/091) has no such WWI polygons turned on as reference. The WWI polygon 5353B is north of the access road and should be shown on this map (The area of the new access road is on the south end of the new map 44 is on the older map page 52), as should all the WWI polygons and points.

The alternatives analysis is the process of avoid and minimize of impacts and requires understanding if there were other options to this route. The loss of the WWI polygons on the maps really confuses the process of understanding alternatives.

Most importantly the fact that the pipeline wetland impacts can travel well outside the boundaries of the project area including water quality issues, alterations in hydrology, invasive species, and potential hazardous leakage are obscured by the second set of maps. This mapping problem is consistent throughout the new set of maps.

Figure 1. Side by side comparison of Map Sets- Appendix I and Attachment B at the Potato River- note that the WWI polygons are missing on the newer map below. Neither map has wetlands too small to delineate. The far south wetland wira13f is not labeled on the newer map.



DATA GAPS: The data gaps comparing the old set of maps from the 2019 delineation to the new maps show not only small areas, such as an access road that needs to be delineated, but **major re-routes** of the project (See Figure 2 below). Every map except 12, 13, 15, 24 and 38 needs additional delineation (Maps 12 and 13 are relatively minor needs). Thus 43 maps of 48 require additional delineation. As explained above, because the WWI polygons are not evident, it is completely incomprehensible to even estimate what the new impacts are. Another data issue is that the new map set does not label all wetlands that were previously labeled on the old map set. This is incomplete map work. An example is in the above Potato River maps where the most southerly wetland lacks a label. This was noted on the White River example below and likely exists elsewhere.

There is a **major re-route** of the project moving the pipeline east from where it crosses the Marengo River (Map 14 and 15) to just north of the crossing at Krause Creek (Map 24). The new maps 14-23 are a new route and require completely new delineation for the entire corridor. The pipeline is about 1.5 miles east of the previous crossing of the Marengo River on Map 16. This has moved the pipeline closer to the town of Marengo and the Bad River tribe reservation. The wetland/waterway crossings of the Marengo River, the Brunswailer River, Trout Brook, and several crossings of Silver Creek have no data. There are numerous un-named waterways as well within this portion of the corridor as well as un-delineated wetlands.

The new re-route of the Marengo River to the south end of the Silver Creek area is approximately 28% of the entire project length, thus at this time 28% of the overall wetland impacts are completely unknown in this water rich landscape. We have no data to look at. This gap represents such a critical area of water and wetland resources, based on what we know in the old route to the west, that the permit is impossible to comment on for this entire section.

Another data gap is at the critical Bad River crossing north of Mellen. There are chunks of new route in Maps 27 & 28 including the east side of the Bad River. This a significant gap of data. This area is upstream of Copper River Falls State Park and eventually flows to the Bad River reservation and is an area of high risk and interest.

There is another **new route** north east of the Bad River at Maps 29 and 30. The East Pipeyard B at Map 34 is being significantly expanded and requires delineation. Wetland impacts appear likely. Maps 36 and 37 show an access road AR80 to be delineated in what appears to be wetland (WWI 33). No forest road is visible on the aerial.

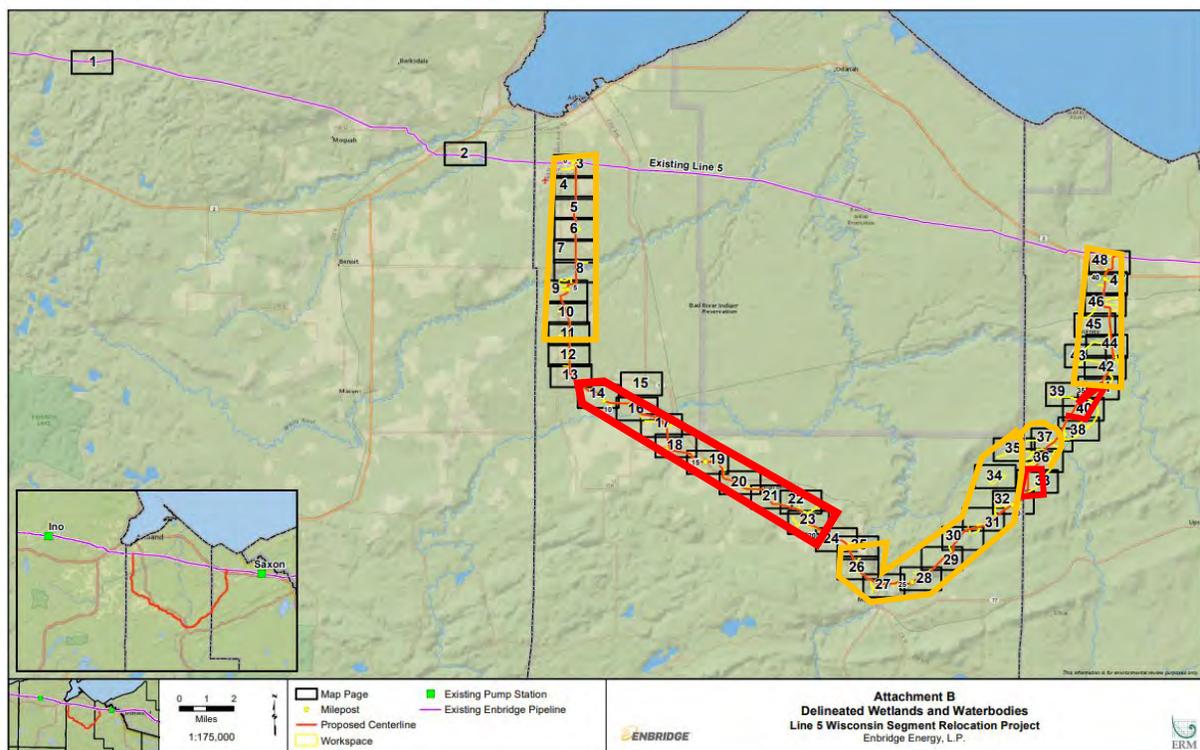
There is another significant **new route** that requires delineation on Maps 39, 40, 41 north of Camp Four Creek and south of a branch of Feldchar Creek.

Using GIS data supplied by the applicant the pipeline is 41 miles of new pipe. There are 14.12 miles of pipeline not surveyed or 34.4% of the entire project. Using the workspace polygons supplied by the applicant there are 374 acres of workspace not surveyed for 37.6% of total workspace. Thus from 34-37% of the project corridor is unknown in terms of wetland and waterway impacts. A wetland permit

process proceeding with over 34% of the route unknown to the regulators, public and Bad River Tribe at this time appears to be very flawed.

When this new delineation data is made available for review and comment it will be very important that the data set is revised with all old data that is no longer relevant REMOVED so that the tribe, the public, and regulators do not have to sift through old data and determine the relevance of each data set.

Figure 2. New Maps- Attachment B. Areas with new routes and no data shown in red for 34.4 % of pipeline corridor. Areas with delineation needed in some part of the project area shown in orange. Only Maps 12, 13, 15, 24, and 38 are complete or close to.



DATA SHEETS AND MAPS: The wetland delineation data was difficult to review by desktop because the data sheets and functional assessments are broken into 22 documents. The data sheets do not cross reference which of the 57 original maps the wetland is found in. The numbers of the wetlands do not correspond in any obvious way to the maps except to designate which county the wetland is located in—either Ashland (as) or Iron (ir). I found I had to find a wetland on the map, and then search the 22 documents of data for that particular wetland. Or if I found a wetland in the data set, I had to search the Table C-1 Wetland Summary Table, to find the map associated with that wetland. There were just a handful of wetland data sheets that contained a map, the majority were missing maps. For example, wetland wasv012f_b had a map within the data. This was rare. This creates a barrier for the public, as well as the regulators and NRD tribal staff to understand this data.

Of further confusion is that the new routes chosen have no data to review at this point so that many of my comments below are made while looking at the entire data set, that will be replaced by a new data set in about 34% of the route. Thus, the general comments below must be modified in the future when the new delineation is made available to the public. And as highlighted above, the new data set must remove data no longer applicable to the route so that reviewers do not have to determine if the data is relevant to the new route.

Each data set had a three page delineation form, a photo page, and a functional assessment followed by the Potential Impacts table. I reviewed dozens of wetland data sets, concentrating on areas with major streams including Bear Trap Creek, White River, Marengo River (old route), Bad River, Camp Four Creek, Tyler Forks, and the Potato River. I also searched the 22 wetland data sets for a number of words that would identify rarer wetlands. For example, the word "Larix" for tamarack (*Larix laricina*) was a hit for one rare wetland, an open bog (wase001). This appears to be on the old route and not the new, undelineated route in Map set 14-23. I searched for "Thuja" – white cedar (*Thuja occidentalis*), because white cedar is associated with more mature forest, ground water dominated systems, and do not regenerate well. Relict cedar swamps are rare and any wetland with white cedar merits particular consideration. Also, these systems can harbor rare plants. There were 11 wetlands with white cedar in data sets 1-11 (some are on old routes), and 20 with white cedar in data sets 12-22, generally on the east side of the corridor route (north east of Mellen).

I also searched for beaver, and found numerous beaver dominated wetland systems that should be considered on this re-route, three in data sets 1-11 and 11 in data sets 12-22.

It was difficult to search for groundwater, seeps or springs and the words are standard and contained in each functional assessment, however the word "seepage" was specific to the investigators (not found in the form itself) and generated a number of wetlands that were associated with groundwater discharge. Seepage was noted in 9 wetlands in data sets 1-11, and 14 in data sets 12-22. Some of these wetlands contained more than one word for example white cedar and seepage.

GENERAL COMMENTS TO BE MODIFIED ONCE FULL DELINEATION IS MADE KNOWN:

1. All wetlands should be considered as protected by state and federal jurisdiction unless a formal AJD (Approved Jurisdictional Determination) is made by the US Army Corps of Engineers. The state's ability to exempt non-federal wetlands is premised on a non-jurisdictional determination by the US Army Corps. Exemption documentation includes a botanical survey and according to WDNR's Checklist for Non Federal Exemption: "Rare and high quality wetlands' cannot be impacted under this exemption, and are defined as wetlands directly adjacent or contiguous to a class 1 or class II trout stream or that consists of 75 percent or more of any of the following wetland types: Alder thicket, Calcareous fen, coniferous swamp, coniferous bog, floodplain forest, hardwood swamp, interdunal wetland, open bog, ridge and swale complex, deep marsh, or sedge meadow."
2. The field data of the original route that I read appears generally complete on desktop review for areas with WWI polygons. However as noted about without the mapped WWI dots "wetlands too small to delineate" there may be missing wetlands. An example of this is shown below in the

White River example. The maps should be updated with all WWI polygons and dots. A field review of a subset of wetlands should be done during the growing season by regulatory and tribal staff to spot check accuracy of the lines and the data submitted. Alternately a third party monitor approved by the state, Bad River tribe and GLIFWC (Great Lakes Indian Fish and Wildlife Commission) should field review the route once all data is submitted for review. I would recommend several wetlands in each HUC 12 watershed be reviewed, including those with a variety of characteristics including floral diversity, any open bog, cedar swamps, black ash swamps, sedge meadow, hardwood forests with muck soils, wetlands with active beaver activity, and wetlands that were associated with seepage, rivers and trout streams. At this point the field review should be done once all the delineation data is complete and made public so that the tribe has a chance to thoroughly review it, and before the end of the 2020 growing season (mid- October).

3. The time of year of the delineation, the fall of 2019, limited the ability to distinguish rare plants such as orchids that are small and bloom earlier. A number of wetlands with cedar, sphagnum moss, and other native plants could support rare plants such as orchids if they were visited earlier in the season. Thus, their absence is not indicative of the potential that they are there. Floral diversity and rare plants/rare plant communities are underestimated in the functional assessment as a result. The search of white cedar in the data set located numerous wetlands with the potential for rare species. Additional field work within the early to mid-summer growing season is required to fully understand rare plant communities.
4. Other spring plants such as marsh marigolds (*Caltha palustris*), could be easily overlooked in fall when they appear as small leaves. The presence of marsh marigolds is associated with groundwater; thus, the time of year limits their usefulness as an important groundwater indicator. A search of the data sheets for marsh marigold only turned up one wetland that it was identified in- this is due to the time of year that the wetlands on the were delineated. Thus, even common spring and early to mid-summer plants were not represented in the data set, let alone more rare species. This limits our ability to understand floristic quality of the wetlands and the use of floristic groundwater indicators.
5. The functional assessment portion of the data set is difficult to review without field work. The wetlands on the route include many large wetland complexes extending off the corridor with intact native species, few to no invasive species and relatively little disturbance in the past century. The uplands were wooded adjacent these wetland complexes, providing erosion control and water quality as well as wildlife habitat. A field review of wetlands should include a review of the assessments of functions, and the investigators should not be focused on the narrow corridor, but that these wetlands extend off site and link to streams and rivers, which travel through the Bad River Reservation and empty to Lake Superior. The value of upstream wetlands to the water quality, quality and health of the streams and rivers should be fully articulated in these assessments.

6. Water quality measurements for wetlands with open water either on or adjacent the corridor should include temperature, turbidity, and pH. These could be monitored during and after construction to document changes in water quality.
7. The Impact statements that followed the Functional Assessments appeared to be the same regardless of the functions stated or the data described in the reports. "Section 4: Project Impact Assessment- Expected Project Impacts" appeared to be the same statement cut and pasted at the end of each assessment. Only a handful of expected project impacts had any deviation from a rote statement. The project impacts should reflect the functions of the wetlands and not be a prescribed response. These appear inadequate overall.
8. My desktop review of the project has raised questions about the completeness of the data collection. The late season delineation missed rare plants such as orchids, and common plant such as marsh marigold. Based on the number and variety of wetlands with white cedar, black ash swamps and seepage, photos with sphagnum moss, muck soils and other indicators, the floristic quality of the wetlands requires additional field work with appropriate timing. Additional data should also be collected for the wildlife portion of the assessment, as the data is very uneven and general (mammals, birds etc.). Once additional survey data is collected the functional assessments should be re-done. Based on these changes the assessment of project impacts could change as well. This should be also done for the over 1/3 of the project route with no data.
9. Many wetlands exhibited mucky mineral, muck, or peat soils. In many cases these organic layers were thin, over clay, bedrock, or cobble. These fragile soils are important to note for several reasons. They are associated with saturation and not formed in wetlands that dry down. They are associated with groundwater discharge, and will be vulnerable to pipeline installation as will be discussed below. Compaction and oxidation will both eliminate the soils during construction. The thin muck or mucky mineral soils, some only several inches thick is impossible to segregate with a backhoe bucket from underlying soils. Muck soils change in character as they are disturbed and oxidize, sinking and collapsing even without the additional weight of heavy equipment. The muck soils that are in the trench area, as well as the muck soils that are part of the active construction corridor will be negatively impacted. The permit needs to clearly define construction techniques to minimize damage such as HDD, but also mitigate for unavoidable loss if this route is approved.
10. There are many wetlands with thin mucky mineral soils in the upper 8 inches that are formed over bedrock or cobble. This is similar to many wetlands in Iron County land outside of the red clay plain. The muck over rock will be exceedingly difficult to construct in. The negative consequences of blasting rock or chipping rock out and then restoring the soil to pre-construction topography and hydrology is not considered in the project impact statement. Water quality to neighboring wetlands could be impacted. Once the rock is removed, presumably the trench is filled with gravel and sand over the pipe. This will introduce a conduit for water movement and potentially alter water flow and quantity. The wetlands with thin muck over rock will have little or no topsoil to return to the surface. All areas of high bedrock should

be clearly known, and adjacent impacts should be fully understood. This impact needs to be described, quantified, and minimized during construction and afterwards.

11. The pipeline route crosses long amoeba like wetland systems that flow towards Lake Superior through the Bad River Reservation. The perpendicular crossing of these systems by the pipeline, will undoubtedly create new flow patterns in many wetlands that disrupt historic flow patterns above and below ground. The lack of wetland polygons on the new maps (Attachment B), obscure the importance of this issue. These are a few of the features that will be damaged:
 - a. Muck or organic soils will be compacted and /or lost and alter flow patterns in the direction of the corridor disturbance.
 - b. Microtopography that litters forested, shrub and emergent wetlands in this area includes sedge tussocks, moss hummocks, tree tip hollows and high points, tree structure, shrub structure, woody debris on the ground including downed logs. This will be lost during construction and will take many decades to recover, if at all. The Microtopography of wetlands influences water flow- spreading and creating micro channels for water movement. The high points encourage tree regeneration while low points pool water. These small topographic features that intact functioning wetlands contain will be destroyed by construction unless the wetlands are directionally bored under.
 - c. Rock once blasted and then removed from the trench will allow for a possible conduit for water which used to perch upon the rock as discussed in #8. Peat will be dry and compacted once the pipeline trench is closed, leading to a different topography and both surface and subsurface water flow.

An example of such damage is on the Enbridge Line 5 Slope 18 failure within the Bad River reservation. The pipeline crossing east west interrupted flow patterns that were historically north south and created a new drainage feature that ran alongside the pipeline. Beaver intercepted flow and created an impoundment that eventually eroded Slope 18 that leads to a tributary of Denomie Creek. This erosion caused the pipeline to be exposed to the surface, thus the changes in surface and sub surface flow due to the factors listed above, and others can have long term consequences.

12. The majority of wetland systems delineated to date are forested which indicate wetland health and limited human impacts to date. In the EIR 6.4.2.1 Table 6.4.2-1 Summary of Project Wetland Impacts estimates 69.3 acres of 108 acres of wetlands are “temporary impacts” or 63% of the total wetland types. Permanent conversion estimates 27.6 acres of forested wetland or 93% of all types.

The pipeline construction corridor that is cut to accommodate the trench, strung pipe, trucks, backhoes, and other equipment and then the associated permanent open cut easement to inspect for leaks will be a permanent alteration of habitat and is not temporary, certainly in our lifetime. Furthermore, the colonization of many plant species including white cedar and other rare species will likely not regenerate after such disturbance. Therefore, the permanent

conversion of forested wetlands will very be higher than stated without active restoration. Restoration of the forested wetlands in the construction corridor is not discussed in the Environmental Impact Report except to assume that the forest will recover.

In the EPP page 13 “Enbridge plans to allow natural reforestation of the temporary workspace area within forested wetlands via stump sprouting, root sprouting, and natural recruitment.”

Also: “Non-standing water wetlands will be seeded using the mix provided in Appendix B to provide temporary cover and allow natural revegetation via the seeds and rhizomes in the topsoil spread back over the ROW after pipe installation”

In Appendix B there is no native seed mix for forested wetlands. We know that invasive species can colonize after disturbance and inhibit tree and shrub re-establishment. A robust restoration plan would include restoration of microtopography that is discussed in 10 b. above. This has been documented in the restoration of northern forested wetlands and could include tree stumps and tree logs being re distributed into the construction corridor. The restoration should include control of invasive species, tree, and shrub plantings if re-sprouting does not occur, and native seeding. Preconstruction data exists in the wetland data sheets, and post construction data should be gathered for multiple years in the project corridor. Five years is a minimal time frame, ten years would be more indicative of the long term regeneration of forest. Any forested areas not immediately recovering in the first two years (documented re-sprouts, saplings) should be restored with native tree and shrub species. The project should have the quality of restoration, monitoring and management as is expected in a mitigation plan for forested wetlands.

13. Invasive species- The EPP state (page 2-3) “It is Enbridge’s intent to minimize the potential introduction and/or spread of undesirable species (i.e., invasive species, noxious weeds, or crop diseases) along the construction ROW due to pipeline construction activities. However, it is not practicable for Enbridge to eradicate undesirable species that are on or adjacent to the construction ROW.” This essentially creates a situation where Enbridge is not taking responsibility for the spread of invasive species up front. The pre and post construction wetland vegetation community should be monitored and managed for invasive species on the entire route after construction. There is data in the wetland data sheets that can be compared to the post construction route. Although Enbridge states that equipment will be cleaned of mud, only a steam cleaning station that is routinely used for all equipment and timber mats could lower the risk that invasive species are not tracked into wetlands. Known areas of invasives should be labeled in the field and avoided in wetlands.
14. Seed mixes- There are several wetland seed mixes in the EPP. There is no specificity for Northern Wisconsin seed or the closest native nursery to the project. This could result in seed from 100s’ of miles away brought into this area. I would recommend that *Glyceria grandis* be removed from the wetland seed mixes as a closely related species *Glyceria maxima* is invading riverine wetlands in Wisconsin and is extremely aggressive. Seed harvested from the wrong species is quite possible. The mix B-4 lists common names only, not scientific names which is

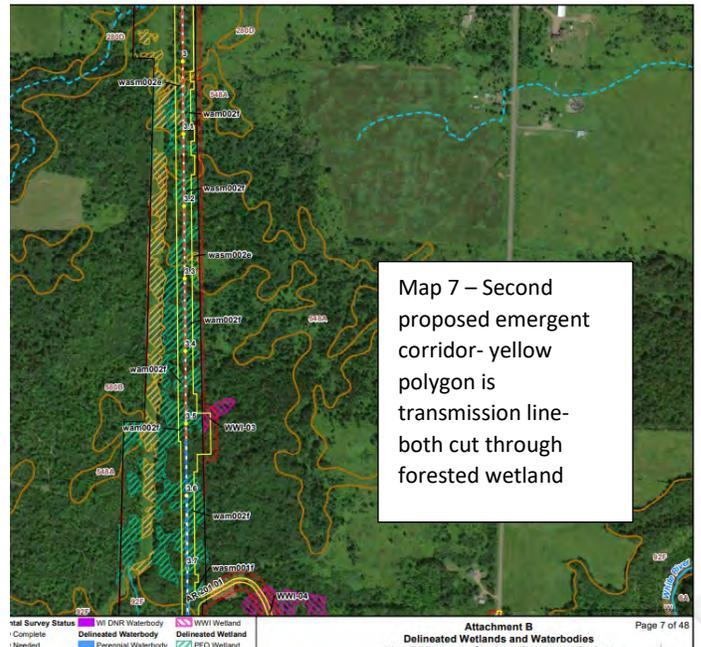
confusing. For example, “march milkweed” is listed- I believe this is swamp milkweed or *Asclepias incarnata*. There is no seed mix for forested wetlands.

15. There are many access roads proposed that cross wetlands and some appear to be of questionable value. For example, what justification is an access road loop on new Maps 41/42? Even if old logging roads are re-purposed (and this does not appear to be the case for many roads), the heavy equipment and compaction of the road may require additional fill. Erosion protection on all roads that cross wetlands and streams should be present, meet state standards and maintained throughout their use. All access roads should be scrutinized for alternatives as they appear to criss cross the corridor. Any access road that is altered by bringing in additional fill (aside from timber matting that is removed after construction) should be quantified as a permanent wetland fill for permitting purposes.
16. The Alternatives Analysis should consider many more HDD crossings of forested complexes and not rely on trenching. Trenching in a forested system will lead to near permanent soil changes that will adversely affect re-forestation. Loss of microtopography, compaction or loss of thin muck soils, loss of forest cover are included in the adverse impacts. Using HDD will minimize impacts if done well (avoiding frac-outs). This should be considered on forested wetlands especially with high functions, rare trees (white cedar) and rare plants.
17. Beaver wetlands- Amik (Beaver; *Castor canadensis*) -There are 3 wetlands on the west side of the pipeline corridor (Data set 1-11), and 11 wetlands with beaver (in data set 12-22) on the east side of the corridor. The beaver influenced landscape should be evaluated in terms of risks during pipeline construction and long term maintenance of the pipeline. Beavers are adept at changing hydrology quickly impounding water and there should be acknowledgement of this in the permits and environmental assessment. The slope failure within the Bad River Reservation on Line 5- Slope 18 was exacerbated by, but not the fault of, beavers impounding water that flowed along the pipeline route (due to the pipeline altering hydrology) and using it to their advantage. Wetland wirbo54 discussed below in the section on Tyler Forks is beaver influenced. The large impoundment to the west of the pipeline corridor has open water that can attract wildlife including trumpeter swans (2017. Windels, S.K.). Beaver impoundments adjacent as well as on all of the pipeline corridor should be evaluated for wildlife habitat, and the presence of trumpeter swans, particularly in nesting season. These impoundments should have water quality measurements to evaluate post construction and in the event of an oil spill or leak.
18. 3rd Party Monitor- The large Enbridge pipeline crossing Wisconsin (Figure 7.1-1, page 120 of EIR) utilized a 3rd Party Construction monitor in the permit to assist construction oversight. A 3rd party monitor would be responsible for inspection and documentation of wetland and waterway crossings and post reports and photographs during construction on a public webpage that could be monitored by the WDNR, Bad River Tribe, GLIFWC and the public. Any spills, sedimentation and erosion events would be immediately reported as well as any other negative impact to the wetlands and streams due to dewatering, blasting, trenching, HDD frac-outs etc. This 3rd Party monitor would be paid by Enbridge but the WDNR, Bad River Tribe and GLIFWC would approve the hiring of the person(s).

SPECIFIC EXAMPLES: The data set is so incomplete at this point that these examples are made to highlight problems in quantifying wetland impacts that exist throughout the known corridor. This is not intended to be a conclusive review, but to highlight issues that will occur throughout the route.

19. **Bear Trap Creek-** I reviewed several data sets in the vicinity of Bear Trap Creek. Wetland wasb027 is sedge meadow/shrub carr and had a loamy mucky mineral soil in the upper 5 inches in a portion of the area. This is an example of fragile soils that will be vulnerable to the issues discussed in 9 a and b. The project direct impacts states that temporary trenching, soil storage and backfilling is of Low significance. This is not accurate.

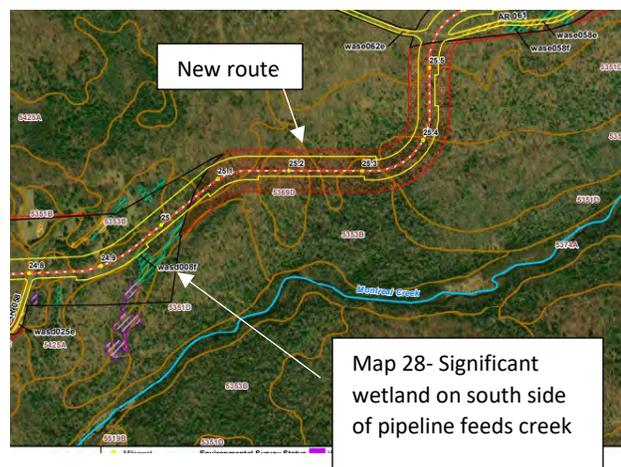
20. **Bear Trap Creek-** Map 7 of the new map set shows the corridor south of Bear Trap Creek. There is an existing utility corridor on the east side of the project area that is emergent due to overhead transmission lines. The east 2/3 's of the corridor is forested including black spruce and the functional assessment for wetland **wasm002** had high Floristic integrity and high wildlife value. There are organic soils present. The Projected Project Impacts were considered Medium for direct impacts, and High for secondary impacts. The new map 7 shows the proposed pipeline on the east side of the corridor- so that the wetlands will be bisected twice, once by the utilities, with a narrow strip of forest and then secondly with the open pipeline corridor, creating a cumulative impact. An alternative that would utilize the existing cleared utility ROW on the west side of the corridor would minimize the damage to this large wetland system. This is a cumulative impact on this wetland system.



21. **White River** – This route previously had two alternatives (old map 6), the east alternative on new Map 8 is shown. There are areas noted to be delineated yet. This area has several confusing map issues. The WWI polygons are turned off, however there is a partial polygon WWI-04 at access road AR201.01 that is only partially mapped. Also, a neighboring mapped wetland WWI is lacking. The wetlands that were delineated in 2019 within the route are not labeled, for example wasw047f and wasw046e are not labeled as well as wasw048f. Data outside the immediate construction zone is thus obscure. This area is a good example of the lack of the dots showing “wetlands too small to delineate”, and thus a possibility that smaller wetlands were missed. Portions of the two maps and the corresponding WDNR wetland layer are shown below.

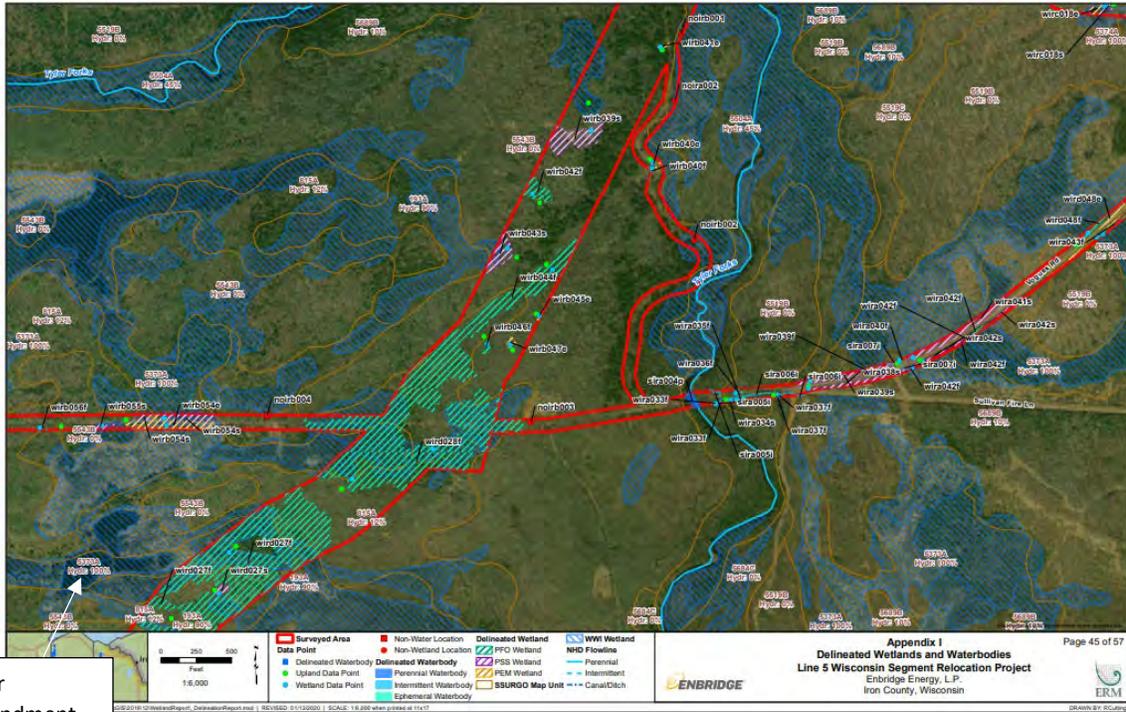
22. **Marengo River-** The old route has been abandoned and the crossing of the Marengo River is now 1.5 miles east. The data at the original crossing documented an intact wetland forest and upland forest adjacent the river, and white cedar was present (wasb028f). The Marengo River is a trout stream and flows to the Bad River reservation. The new route needs to be evaluated once data is available.
23. As discussed above the wetlands and waterways from Maps 14-23 including the new Marengo River crossing are unknown. This comprises ~ 28% of the entire route.
24. **Bad River-** The alternative southern Bad River crossing was abandoned, and the crossing is on the north side of Mellen (new map 27). This route requires additional delineation, both within the Bad River forested floodplain and an expanded route to the east. As noted above, the Bad River is a significant river to the Bad River Tribe, Copper Falls State Park and Natural Area, and to Lake Superior. A pipeline spill in this location would be catastrophic. The floodplain forest (wasb005) is critical habitat to the river health and downstream functions. This is also an area of extensive invasive garlic mustard control (*Allaria petiolata*). This area of disturbance has the potential to track garlic mustard to new areas on equipment, timber mats and soil movement. Most of the wetland data sheets have limited to no invasive species and this project could change that dynamic. Attachment F designates this as an HDD directional drill placement of the pipeline. While this will limit ground disturbance, the wetland can be vulnerable to a frac-out during drilling when drilling mud finds a weak point and rises to the surface. All measures must be taken to avoid this risk. The route will have a clearing for maintenance. This width should be minimized to avoid the gap in the floodplain forest. The loss of functions in that cleared width should be understood including any erosional changes with loss of tree cover.
25. **Montreal Creek-** wetland wasd008 is located within the route north of Montreal Creek found on old map 33, new map 28. This forested wetland contains white cedar (*Thuja occidentalis*) as well as black ash. There are 2 inches of mucky peat at the surface and the system contains groundwater processes that feed south to Montreal Creek. These indicators of relict cedar, muck soils, pools of water and groundwater all demonstrate the high functions of this wetland.

Although the current pipeline route appears to skirt the outer boundary of this wetland, off site impacts could appear during and after construction. There is a new corridor to be delineated north and east of this known wetland area and there are unknown possible further impacts to this area (red hatched area on map).

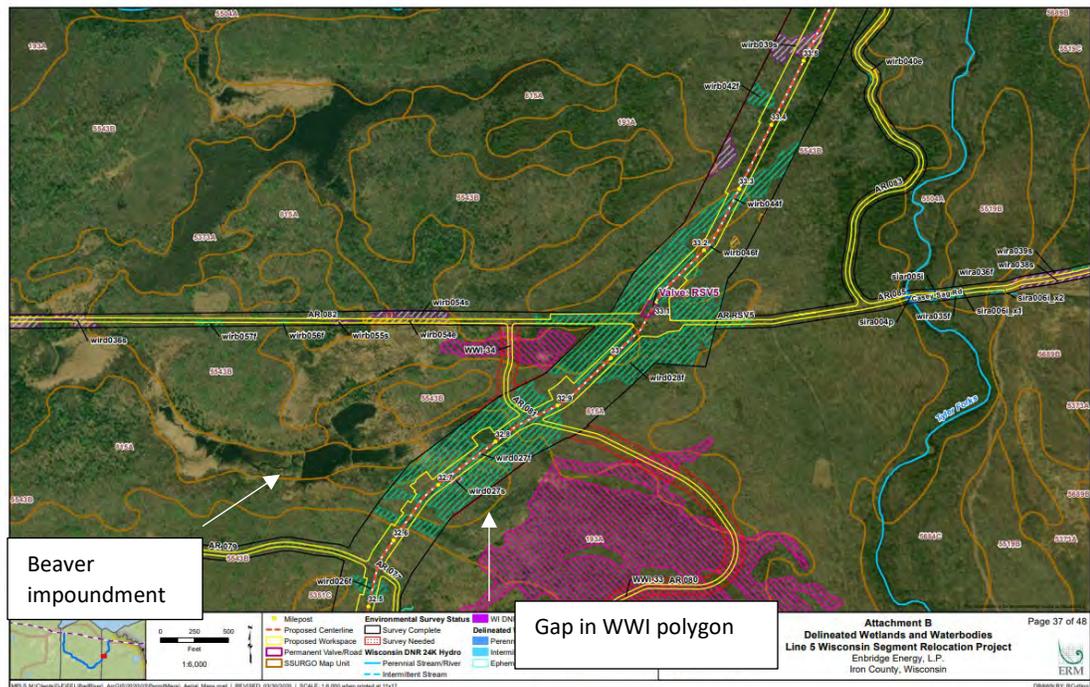


where baseline water quality data should be conducted on and off the corridor to compare to construction and post construction.

Comparison of Wetlands near Tyler Forks- above map 45 with WWI polygons and water rich context to route, below Map 37 of same area with few WWI polygons. Pink polygon on east side appears to be incomplete.



Beaver impoundment



Beaver impoundment

Gap in WWI polygon

Tyler Forks- The junction of Vogue Creek and the crossing of Tyler Forks River are shown on old map 46, new maps 38 and 40. This is a high value wetland complex of forested wetlands at the river crossing and north of it. Wetland wirc23 is a floodplain forest with mucky mineral soils, vulnerable to compaction and oxidation. There is sparse herbaceous vegetation thus erosion may occur after construction disturbance.

North of the crossing, wetland wirc022 also is hardwood swamp with thin mucky mineral soils. Wetland wirc013 had a black ash forest with white cedar present and 10 inches of mucky mineral soils. Within this area is a beaver dominated emergent wetland.

Midwest Natural Resources, Inc. - Enbridge - Line 5 Relocation Project



wirc013f_w1_N



wirc013f_w1_S

The photos of wirc013f to the left are an excellent example of the value of microtopography in wooded wetlands. Note clumps of sedge, ferns, downed logs, and shallow roots that are destroyed with trenching in the pipeline.

This microtopography is well developed throughout the corridor and will be removed during construction.

The functional assessment of this wetland complex notes few invasives, a large intact block, significant groundwater recharge. The Floristic Integrity, wildlife habitat and groundwater processes were all rated high.

Finally, new map 40 shows a significant new route in the vicinity of Tyler Forks shifting the pipeline to the west with unknown wetland data in this location.

28. **Potato River-** The wetland complexes that are in the vicinity of the Potato River had a high number of wetlands with white cedar present, in some areas at 40% cover (wird001f) and 50% cover (wira001f). there were also organic soils throughout, either muck, mucky mineral, or mucky peat. The area had numerous seepage wetlands described. This is a high functioning intact forested system that is described on multiple data sheets. Old maps 50, 52, 53 and 54 show amoeba shaped WWI wetland polygons generally east/ west across the project corridor with the Potato and Lawrence Creek flowing west towards the Bad River reservation and thence to Lake Superior. The new maps are in a different frame and include 42, 44, and 45.

Wetlands on new map 42 south of the Potato River crossing include wir006 with white cedar, sphagnum moss and 5" of muck soils. The notes of floristic integrity notes that there is a potential for rare species in the cedar dominated areas. Wetland wira001f has 50% white cedar and 8 inches of muck soils. Both wetlands were rated medium for floristic integrity and wildlife, however they are high functioning intact forest and I believe should be rated higher in multiple categories.

Wetland wira011 is forested with black ash and sugar maple and has 4 inches of mucky mineral soils. and wira 012 is forested with sugar maple and yellow birch and has 6 inches of muck soils.

Wetlands directly south of the Potato River crossing (new map 44) include wira004f a black ash, white cedar swamp, wira003f a wetland with white cedar (25%), muck soils with rocky soil at 8 inches and hydrology fed by "seepage". Wetland wira003 rated as high functions for human use, fish and aquatic life, flood and stormwater storage and water quality protection.

Wetland wira013f a red maple/yellow birch swamp with 4 inches of mucky peat over silty clay.

Wetland wira001f on the banks of the Potato River (new map 44) has 40% white cedar cover. This is a high value tree as it has regenerated poorly since the late 1800's "cut over" period when most of northern forests were clear cut. This floodplain forest was rated of high functional significance for floristic integrity, wildlife habitat, shoreline protection, and floodwater and stormwater storage. Although the investigator did not note groundwater processes, we know that white cedar are commonly found in groundwater fed cedar swamps.

Finally wetlands north of the Potato River include wira016 (new map 44/45) on the north side of the crossing is also rated high for floristic integrity.

Wetland wira006 is a red maple / black ash swamp with shallow pools of water, and 13 inches of mucky peat. This wetland was rated with high groundwater functions.

Wetland wira015f is conifer swamp dominated by hemlock with 2 inches of mucky peat soils.

This snapshot of the wetland systems in the vicinity of the Potato River reveals **high functioning intact wetland forested complexes** with a variety of tree species dominating in different wetland areas. The presence of white cedar in multiple wetlands is significant, both due to its rarer presence on the landscape and because it is associated with groundwater fed cedar swamps. Cedar is also slow to impossible to regenerate due to heavy deer browse. The thin muck soils are vulnerable to damage during construction. All of the forested photographs showed microtopography that will be destroyed during construction with consequences to water flow and plant regeneration. This system is a high risk for long term impacts to wetland functions.

References:

Windels, S. K. (2017). Beavers as Engineers of Wildlife Habitat. *Beavers: Boreal Ecosystem Engineers*, 239-268. doi:10.1007/978-3-319-61533-2_10

Biography

Alice L. Thompson, Owner, Senior Professional Wetland Scientist

Alice L. Thompson is an independent wetland consultant since 1989 and is certified by the Society of Wetland Scientists as a Senior Professional Wetland Scientist (SPWS). Thompson is a WDNR “assured” wetland delineator since 2006. She obtained a Master’s degree in biological sciences at the University of Wisconsin-Milwaukee in 1995. She is a WDNR-Certified Endangered Resource Reviewer with access to the detailed NHI data for specific projects. Her professional interests include wetland restoration, mitigation, and the control of invasive plant species, especially reed canary grass, reed manna grass (*Glyceria maxima*), southern cattail (*Typha domingensis*) and giant reed grass (*Phragmites australis*). The 2019 Wisconsin Governor’s Conference on Diverse Business Development awarded Thompson first runner up as a small size Outstanding Woman-Owned Business.

Ms. Thompson has satisfactorily completed the Wetland Delineation course offered by the Wisconsin Department of Administration, Coastal Management Program in 1998; the Advanced Wetland Delineation Training Workshop offered by the University of Wisconsin-La Crosse in 2002, 2008 and again in 2014; Advanced Hydric Soils offered by the Wetland Training Institute in 2004; the Primary Environmental Corridor Delineation Workshop offered by the Southeastern Wisconsin Regional Planning Commission in 2004; Wetland Plant Identification offered by Dr. Mohlenbrock, Biotic Consultants, 2003 and 2004; Ecological Geology Workshop, UWM Field Station, 2006; the Midwest Supplement Training offered by the US Army Corp of Engineers in 2009, Native Mussel Identification Workshop, UWM Field Station, 2012; Geology of the Penokees Workshop at Northland College, 2014; Northern Michigan Wetland Plant Identification offered by the Michigan Wetlands Association, 2019; and the Critical Methods in Wetland Delineation offered annually by the Wisconsin Department of Natural Resources in 2018 and eight previous years since 2006. Thompson has taught a 2 day field workshop on “Wetland Delineation for Beginners” at the UW-Milwaukee Field Station (Saukville, WI) in 2017 and 2019.

BAD RIVER BAND OF LAKE SUPERIOR TRIBE OF CHIPPEWA INDIANS

CHIEF BLACKBIRD CENTER

P.O. Box 39 • Odanah, Wisconsin 54861

July 11, 2020

Ben Callan, WDNR
Division of External Services
PO Box 7921
Madison, WI 53708-7921
benjamin.callan@wisconsin.gov

RE: Comments Concerning the Enbridge Energy, LLC Line 5 Relocation around the Bad River Reservation

Dear Mr. Callan,

The Bad River Band is a sovereign Nation with inherent authority over the Bad River Indian Reservation and off-reservation area within the Tribe's treaty ceded territory. This letter should not be construed as Tribal Consultation and is not considered a federal undertaking at this point.

The Bad River Tribal Historic Preservation Office (hereinafter "THPO") questions the overall purpose of the proposed reroute in lieu of transporting oil through the Bad River Indian Reservation and how it benefits the State of Wisconsin, or how it contributes to the oil distribution system in the United States. At present, there are no refineries that refine the oil for distribution in the United States and the United States is not making that a requirement of utilizing the United States transportation system. The citizens of Wisconsin have not received financial benefit from this pipe during its existence for the past 60 years. Other than creating a high-risk scenario for an oil spill in the pristine environment of northern Wisconsin, near the largest freshwater body in the United States, how and who will this project benefit?

The THPO requests transparency as to why the Wisconsin Department of Natural Resources (WDNR) deems the risk of an environmental disaster from a foreign company to be an appropriate measure to take, rather than ensuring a clean and healthy environment, or drinking water for future generations, or for our relatives that live in the forests that the Nation relies on for sustenance. The THPO further questions why it is necessary to permit a foreign company to use land ceded through the Treaties of 1842, 1847, and 1854 for no purpose or benefit to the people, other than to place them, and their environment, at a devastatingly high health risk.

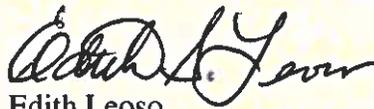
BAD RIVER BAND OF LAKE SUPERIOR TRIBE OF CHIPPEWA INDIANS

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P.O. Box 39 • Odanah, Wisconsin 54861

The proposed project does not serve any beneficial purpose to our Tribal members and our lands now and in the future, and it compromises our historic properties and historic practices as a people. It is of my opinion as the Tribal Historic Preservation Officer of the Bad River Band of Lake Superior Tribe of the Chippewa that this project should not be allowed to proceed in any direction. It is for those reasons that the Enbridge Energy, LLC Line #5 oil pipeline should be decommissioned, in its entirety.

Weweni sa,



Edith Leoso

Tribal Historic Preservation Officer

**UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN**

BAD RIVER BAND OF THE
LAKE SUPERIOR TRIBE OF CHIPPEWA INDIANS
OF THE BAD RIVER RESERVATION,

Case No. 3:19-cv-602

Plaintiff,

The Honorable William M. Conley

v.

ENBRIDGE INC.;
ENBRIDGE ENERGY PARTNERS, L.P.;
ENBRIDGE ENERGY COMPANY, INC.; and
ENBRIDGE ENERGY, L.P.,

Defendants.

FIRST AMENDED COMPLAINT

The Bad River Band of the Lake Superior Tribe of Chippewa Indians of the Bad River Reservation (the “Band”), a federally recognized Indian Tribe, by and through counsel, states and alleges as follows:

INTRODUCTION

1. The Band enjoys sovereign control over the approximately 125,000-acre Bad River Reservation. The Reservation was established by treaty with the United States in 1854 and is located on the south shore of western Lake Superior and the northeast shore of Madeline Island within the exterior boundaries of the State of Wisconsin.

2. Defendants Enbridge Inc., Enbridge Energy Partners, L.P., Enbridge Energy Company, Inc., and Enbridge Energy, L.P. (collectively, “Enbridge”) operate a pipeline transporting up to twenty-three million gallons of crude oil and natural gas liquids per day across the Reservation. Since 2013, they have done so despite (1) the expiration of easements along the

Reservation right-of-way and an express legal obligation to remove the pipeline from those parcels; (2) the Band's insistence that the flow of oil cease; and (3) the fact that the pipeline's placement near the migrating channel of the Bad River has given rise to circumstances that have been demonstrated to lead to environmental catastrophe.

3. The Band and its members have federal treaty rights to the lands, waters, and natural resources within the Reservation and ceded areas. They have protected these resources for centuries.

4. Under the Band's continuing stewardship, the wetlands of the Bad River Reservation, and the densely interlaced network of rivers and streams that feed and replenish them, are recognized by international treaty as among the most sensitive freshwater estuarine ecosystems on Earth, a thriving refuge for innumerable flora and fauna including many threatened and endangered species. They support critical treaty fisheries and contain some of the last remaining wild rice beds on the Great Lakes, which Band members continue to protect and harvest pursuant to federally protected treaty rights and using the methods developed by their ancestors centuries ago.

5. Enbridge owns and operates a network of petroleum pipelines in the United States and Canada. One of them – a sixty-six-year-old steel pipeline known as "Line 5" – begins at a terminal in Superior, Wisconsin, traverses northern Wisconsin and the Upper Peninsula of Michigan, crosses under the Straits of Mackinac, and then bisects the Lower Peninsula of Michigan before crossing the St. Clair River and the international boundary line and reaching a terminal in Sarnia, Ontario, Canada.

6. Line 5 is principally a thoroughfare for Canadian oil. On a daily basis, it transports up to 540,000 barrels (approximately twenty-three million gallons) of crude oil and natural gas

liquids that originate in Alberta, Canada (where they are transported by other Enbridge pipelines until they reach Superior), the majority of which are ultimately refined in Ontario for use outside the United States.

7. Roughly seventy-five miles east of Superior, Line 5 traverses the Bad River Reservation for over twelve miles along a heavily forested corridor that includes numerous river and stream crossings and large swaths of wetlands.

8. Enbridge no longer has the legal right to operate Line 5 across the full reach of the Reservation corridor. Line 5 was installed on the Reservation in 1953 pursuant to easements issued by the Bureau of Indian Affairs for the tribal and individual lands that lie along its path. These easements were renewed in the 1970s and again in 1993.

9. Fifteen of the easements expired on June 2, 2013, as their renewal was expressly “limited as to tenure for a period not to exceed 20 (Twenty) years ... ending on June 2, 2013[.]” In those same easements, Enbridge expressly promised that the company would “remove all materials, equipment and associated installations within six months of termination, and ... restore the land to its prior condition.” Rather than doing so, or seeking the Band’s consent to a renewal of the easements prior to their expiration, Enbridge has continued to operate the pipeline as if it has an indefinite entitlement to do so. This constitutes an unlawful possession of the subject lands, and an intentional, ongoing trespass upon them.

10. Federal regulations prohibit renewal of expired right-of-way easements on Indian lands. 25 C.F.R. § 169.202(a)(4). Enbridge would accordingly need to obtain approvals for new easements from the Bureau of Indian Affairs, as well as approval from the Band under Band law, to lawfully operate its pipeline on the parcels with expired easements.

11. Federal law provides that the Bureau of Indian Affairs may not approve new easements across tribal lands “without the consent of the proper tribal officials.” 25 U.S.C. § 324. *See also* 25 C.F.R. § 169.107(a) (“For a right-of-way across tribal land, the applicant must obtain tribal consent[.]”). The Band, which has an ownership interest in eleven of the parcels with expired easements, issued a formal Resolution on January 4, 2017, in which it declared that in light of the grave threat posed by the pipeline to the Band’s way of life and the Reservation ecosystem, it would not consent to the renewal of the easements for any parcels in which it has such an interest.

12. The Band and Enbridge then entered into mediation to discuss the removal of the pipeline from the Reservation. The discussions were respectful, but the Band and Enbridge were unable to reach consensus regarding the timing of cessation of pipeline operations.

13. While the risk of a rupture or leak of Line 5 is significant along the entire Reservation corridor, the circumstances just east of the location where the pipeline currently passes beneath the Bad River portend a looming disaster. Here, the Bad River is carving away the banks and soils that conceal and protect the pipeline, such that it will soon be exposed at this location to the full force of the river and to the substantial volume of fallen trees, logs, ice flows, and other material that it conveys.

14. Specifically, a meander in the Bad River has undergone substantial channel migration (*i.e.*, changes in the river’s path across the land) as a result of bank erosion accelerated by the river’s frequent high flows and its local geomorphology. Line 5 was installed in 1953. Ten years later, in 1963, the north bank of the meander bend was approximately 320 feet from the pipeline. In 2015, that distance had decreased to approximately eighty feet, and today it is only twenty-eight feet. The average encroachment of five feet per year has increased in recent years: from 2015-2019 the yearly bank loss has been approximately thirteen feet on average. Based on

these historic observations, it is anticipated that the Bad River will reach the pipeline within the next two to five years, and conceivably much sooner depending on factors including river hydrology and hydraulics and the properties and composition of the soils between the river and the pipeline.

15. When the migrating channel of the Bad River reaches the buried pipeline, the river will erode and remove the surrounding soils (a process known as scouring) until the pipeline is exposed. When this occurs, portions of the pipeline will no longer be supported by underlying or surrounding soils for the length of the exposure, and the unsupported span will lengthen as the river continues to carry away the soils.

16. Of similar concern is the scouring taking place as the Bad River overflows its banks during periods of flooding and channels of water flow across the meander neck, again eroding the soil that currently protects the pipeline. The Bad River possesses the potential to form a new channel across the meander neck and to flow directly across the exposed pipeline in its new configuration. The river has formed new channels at other meander locations on the Reservation, both upstream and downstream of the Line 5 crossing.

17. Whether as a result of bank erosion or channelization (or both), the exposure of the pipeline will subject it to an array of stresses it was never designed to withstand, including but not limited to (1) the enormous force of the moving water; (2) the oscillation of the unsupported span of pipeline resulting from the river currents; (3) the pipeline's own considerable weight, including its load of oil, unsupported by surrounding soil; and (4) tremendous and repeated impacts as fallen trees, ice flows, and other objects collide with the exposed pipeline.

18. Pipelines are well known to rupture under these circumstances. Dozens of documented failures have occurred. In 2013, the federal Pipeline and Hazardous Materials Safety

Administration (“PHMSA”) raised alarm about the dangers of pipelines exposed by rivers in a formal report to Congress, and has repeatedly (including as recently as 2019) promulgated warnings to pipeline operators that buried pipelines exposed as a result of channel migration, flooding, and river scour are in danger of rupture as a result of stresses they were not designed to withstand.

19. The foregoing circumstances, discussed in more detail below, represent an existential threat to the Band, its Reservation resources, and its way of life. They pose a dire threat to the treaty-protected rights of the Band and its members in the lands and waters of the Reservation. Accordingly, in addition to constituting a trespass and unlawful possession of the Band’s lands, Enbridge’s refusal to halt the flow of oil across the Reservation constitutes a grave public nuisance.

20. This suit seeks a declaratory judgment that Enbridge’s continued use of Line 5 across the Bad River Reservation constitutes a public nuisance and a trespass, and an order of ejectment and an injunction requiring Enbridge to cease the operation of Line 5 on the Reservation and to remove it safely from the Reservation.

JURISDICTION AND VENUE

21. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1362 because the action arises under the Constitution, treaties, and laws of the United States, and is brought by an Indian band with a governing body duly recognized by the Secretary of the Interior.

22. This Court has supplemental jurisdiction over any claims arising under Wisconsin law pursuant to 28 U.S.C. § 1367.

23. The allegations of this Complaint give rise to an actual controversy within the meaning of 28 U.S.C. §§ 2201 and 2202.

24. Venue is proper in this district pursuant to 28 U.S.C. § 1391(b) because the Defendant conducts business in this district, the actions and omissions giving rise to the claims occurred and are occurring in this district, and the property that is the subject of this action is situated in this district.

PLAINTIFF

25. Plaintiff Bad River Band of the Lake Superior Tribe of Chippewa Indians of the Bad River Reservation (the “Band”) is a federally recognized Indian tribe that enjoys government-to-government relations with the United States. It is organized under the Indian Reorganization Act of 1934, 25 U.S.C. § 5123, and is formally recognized by the Secretary of the Interior as enjoying the privileges and immunities that accompany tribal status. *See* Indian Entities Recognized by and Eligible to Receive Services from the United States Bureau of Indian Affairs, 84 Fed. Reg. 1,200 (Feb. 1, 2019).

26. The Band exercises sovereign powers of self-governance and jurisdiction over its members and its Reservation.

27. The Band is party to three treaties with the United States: Treaty with the Chippewa (July 29, 1837), 7 Stat. 536; Treaty of La Pointe (October 4, 1842), 7 Stat. 591; and Treaty with the Chippewa (September 30, 1854), 10 Stat. 1109. These treaties remain in effect today.

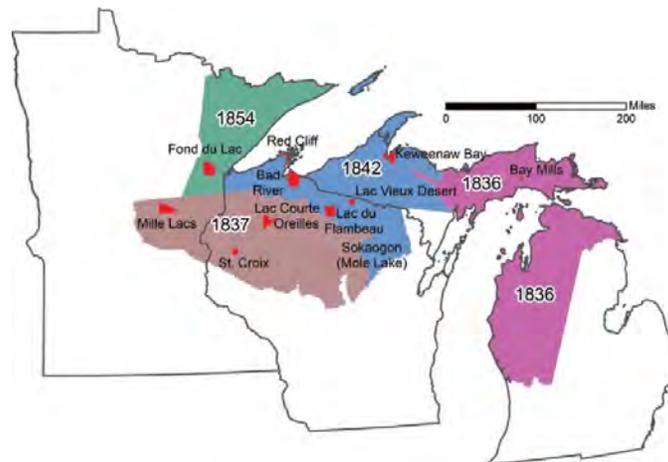
28. The Band brings this action in its own capacity and as *parens patriae* on behalf of its members.

DEFENDANTS

29. Defendant Enbridge Inc. is an energy delivery company based in Calgary, Alberta, Canada. Defendants Enbridge Energy Partners, L.P. (known prior to 2001 as the Lakehead Pipeline Company), Enbridge Energy Company, Inc., and Enbridge Energy, L.P., are American affiliates of Enbridge Inc., through which the latter operates in the United States. Upon information and belief, Enbridge Energy Partners, L.P., Enbridge Energy Company, Inc., and Enbridge Energy, L.P., are organized under the laws of the State of Delaware and based in the State of Texas. Defendants are referred to collectively as Enbridge.

THE BAD RIVER RESERVATION

30. Through a series of treaties with the United States between 1836 and 1854, the Ojibwe Bands of northern Michigan, Wisconsin, and eastern Minnesota ceded vast tracts of land to the federal government, with small reservations (shown in red in the map below) retained from the cessions and set aside for their exclusive use.



Upper Great Lakes Indian Land Cessions and Reservations

31. In those same treaties, the Indians reserved the rights to fish, hunt, and gather both within their reservations and in the ceded lands and waters, which rights were necessary to their survival and endure to this day.

32. The Bad River Reservation was established by the 1854 Treaty with the Chippewa. *See* 10 Stat. 1109, art. 2 (2d). It encompasses approximately 125,000 acres along the south shore of Lake Superior within the exterior boundaries of the State of Wisconsin. The Reservation also includes an additional “two hundred acres on the northern extremity of Madeline Island, for a fishing ground.” *Id.* The Band possesses inherent sovereignty and exercises the powers of self-government over the Bad River Reservation.



33. The United States holds various lands within the Bad River Reservation, including the Band’s interests in the parcels with expired easements, in trust for the Band pursuant to federal law, including the 1837, 1842, and 1854 Treaties, the Indian Reorganization Act of 1934, 25 U.S.C. § 5108, and the Indian Land Consolidation Act of 1983, 25 U.S.C. § 2209. Such lands are subject to federal restrictions against alienation, 25 U.S.C. § 177; 25 C.F.R. § 152.22(b), and are generally subject to tribal and federal laws and regulation, 25 C.F.R. § 1.4. *See Alaska v. Native Village of Venetie Tribal Gov’t*, 522 U.S. 520, 527 n.1 (1998). Rights-of-way over tribal trust lands may not be granted without the consent of the tribal government, and such rights-of-way are subject to tribal and federal law. 25 U.S.C. § 324; 25 C.F.R. §§ 169.107(a), 169.9.

34. At the time of its establishment in 1854, the Reservation remained largely wilderness and vast wetlands interlaced with a network of rivers and streams, including the Kakagon River, the White River, and the Bad River, all flowing northerly across the clay deposits of the Reservation and into Lake Superior. Band members and their forebears had stewarded these lands and waters for centuries.

35. Before joining Lake Superior, those rivers give way to deltas forming complex freshwater estuaries (today known as the Bad River and Kakagon Sloughs), home to countless species of mammals, reptiles, fish, waterfowl, and migratory birds, as well as medicinal and other edible plants, including wild rice, a rich source of both protein and carbohydrates and hence a primary basis of the Band's sustenance.

36. Aside from the small village of Odanah (the historic cultural and economic center for the Band) and other modest development, principally along Highway 2, the Reservation today remains largely remote wilderness, with numerous rivers, streams, and wetlands of excellent water quality. It is home to an extraordinary abundance of plants, fish, birds, reptiles, and mammals. In fact, the Reservation harbors at least forty-four species of flora and fauna that are federally and/or state-recognized as threatened or endangered, including the federally endangered Piping Plover and the federally threatened Canada Lynx.



Piping Plover



Canada Lynx

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



Seth Eastman, *Chippewa Women Gathering Wild Rice*, c 1857



Ojibwe men harvesting wild rice, Upper Great Lakes, c 1920s



Bad River members harvesting wild rice, c 2012

38. In promulgating the Band's wild rice harvesting regulations, the Tribal Council has declared:

That the lands now comprising the Bad River Reservation were traditional hunting, fishing, and gathering grounds for the ancestors of the Tribe; that these lands were selected as a Reservation because of their wealth of fish, game, and wild rice; that wild rice has been a nutritional staple for members of the Tribe for generations beyond memory; that wild rice continues to provide a substantial portion of the protein and other nutritional needs of the Tribe's members; that the annual harvest of wild rice is a traditional event of long-standing cultural importance; that high unemployment and cash-poor local economy indicate that wild rice will remain critical as a food source for the Tribe's members; that one predictable source of cash income for the Tribe's members is the sale of wild rice to non-residents of the reservation; and that effective regulation of both member and non-member harvesting of wild rice is essential for the preservation of wild rice in amounts sufficient to supply the economic, nutritional, and cultural needs of the Tribe's members.¹

¹ Bad River Tribal Court Code § 303.1 (Findings), <http://www.badriver-nsn.gov/legislative/tribal-court-code>.



Band children learning about wild rice from Band elders

39. Band members likewise continue to exercise their treaty-protected rights to fish, trap, hunt, and gather within the Reservation and throughout the ceded territories. Band members hunt game including white-tailed deer, elk, ducks, and grouse on and near the Reservation. And in addition to wild rice, Band members gather edible plants such as cranberries, blackberries, strawberries, and leeks, as well as numerous medicinal plants including Labrador tea, sage, and cedar. All of these activities are protected under the treaties of 1837, 1842, and 1854, as are Band members' rights of access to these resources by both land and water.



Band members learning historic canoe poling methods on the Bad River



Band members boating on the Bad River

40. Band subsistence fishers use methods developed by their ancestors, employing spears, nets, and small boats on waters including Lake Superior, the Bad and Kakagon Rivers, and other inland lakes and streams. The key species they harvest include walleye, bass, lake sturgeon, salmon, lake herring, perch, lake trout, and whitefish. Band members also engage in commercial

fishing, primarily for whitefish and lake trout, using nets and larger boats on Lake Superior under treaty-based harvest allocation agreements with the State of Wisconsin and the Red Cliff Band of Lake Superior Chippewa. All of these fishing activities are protected by the 1837, 1842, and 1854 treaties.



Band members using historic (spear and net) subsistence methods on the Bad River

41. The Band carefully regulates its members' treaty fishing activities in the interests of environmental and cultural preservation. In promulgating such regulations, the Tribal Council has declared as follows:

The Tribal Council finds that the fisheries of the Bad River Tribe, both on the reservation and in Lake Superior, constitute important communal resources possessed by the Tribe as a whole. The Bad River Tribe has a long history of lake and river fishing and a long history of respect for the fish its members pursue. Both before and after the treaty era, Bad River members fished for subsistence, consuming some of the fish they caught, and selling, on a subsistence level, others. Tribal members have also fished for market on a commercial scale, and the time is not so far past when commercial fishing wharves lined the Bad River at Old Odanah, home port to member-owned fishing steamers. The Tribe's interests in the fish of the reservation and of the Lake continue to today. Today's interest is to see that the fish populations survive for harvest tomorrow, and into generations yet unseen. The Tribe's interest is also to provide a source of subsistence – for home use consumption and also for small scale market activity – to its members. Finally, the Tribe's interest is to provide a stable, protected source for the livelihood of those of its members who pursue the Lake's fish on a commercial scale.²

² *Id.* § 325.1.

42. The Band is highly active in fisheries restoration in furtherance of these same values and objectives. The Bad River fish hatchery (operated by the Band since 1968 in conjunction with the U.S. Fish & Wildlife Service (“USFWS”)) raises primarily walleye and perch. Because many of the walleye raised in the hatchery and released into inland Reservation waters each year make their way to Lake Superior, the hatchery has played a vital role in the recovery of walleye populations on a regional scale. The Band’s lamprey control programs (undertaken in cooperation with the USFWS) have been instrumental in reversing the historic decline of lake sturgeon, whitefish, and lake trout populations in the western Lake Superior region. Likewise, the Band’s establishment (with the Wisconsin Department of Natural Resources (“WDNR”) and the Red Cliff Band of Lake Superior Chippewa) of lake trout refuges within the bands’ treaty-protected fishing grounds has been vital to the regional lake trout fishery.



Lake Sturgeon fingerling, Bad River Reservation



Lake trout refuges

43. The Band’s centuries-long stewardship of the lands and waters within and around the Reservation is evidenced today in a broad range of natural resource protection activities. While the Band is a small tribe of modest means, its Natural Resources Department (“NRD”) is a forefront feature of its tribal government and widely regarded for its expertise and dedication in protecting the Reservation environment. The Department includes specialists in fisheries, wildlife,

water and air quality, environmental contamination and monitoring, wetlands hydrology and chemistry, soil conservation, forestry, climate change, and invasive species.

44. The mission of the Band's NRD is

To uphold the tribal constitution and to implement the policies and regulations duly adopted and enacted by the Bad River Tribe as they relate to management and protection of the tribal natural resources; To provide technical assistance to the Bad River Tribe in the protection, conservation, development and management of the natural resources throughout the Bad River Reservation and its treaty fishing waters in Lake Superior, thereby insuring access to traditional pursuits by present and future members of the Tribe; To facilitate the development of institutions of tribal self-governance to insure the continued sovereignty of the Bad River Tribe in the regulation and management of its natural resources; To extend the mission to maintain ecosystem integrity, recognizing that all forms of life cannot be sustained long-term in an environment that has been degraded; To use the best available science and affordable technology in efforts to protect the ecosystem and the broader environment; To infuse traditional tribal values into the daily activities of the Department and manage the natural resources with the respect traditionally given them.³



Bad River NRD staff conducting field work

³ Bad River Band Natural Resources Department Mission Statement, <http://www.badriver-nsn.gov/tribal-operations/natural-resources>.

45. The Band's NRD is charged with implementing and enforcing numerous laws enacted by the Tribal Council for the protection of Reservation lands and natural resources, including the Band's Wetland and Watercourse Protection Ordinance and Environmental Response and Remediation Ordinance. The NRD accordingly regulates projects and activities occurring on Reservation lands through planning, permitting, monitoring, reporting, and remedial requirements, including in connection with the inspection, maintenance, repair, and operation of Line 5. The U.S. Environmental Protection Agency ("EPA") has delegated authority to the Band to regulate water quality on the Bad River Reservation under the Clean Water Act, *see* 33 U.S.C. § 1377, which authority is exercised by the NRD.

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

47. The results of the Band's stewardship are widely recognized. For instance, the World Wetland Network has observed that the Kakagon and Bad River Sloughs (the vast wetland complex where the Bad, White, and Kakagon Rivers meet Lake Superior)

are a fantastic example of people living in harmony with their environment. The sloughs have huge cultural importance to the indigenous Bad River Tribe, which has worked for generations to protect the wetlands and manage them in a sustainable way. The tribe

members use products from the wetland, such as rice from the wild rice beds, in a sustainable manner.⁴

48. The Sloughs comprise one of the world's last and best remaining examples of an intact freshwater estuarine ecosystem, one that includes numerous threatened and endangered plants and animals and the only remaining extensive coastal wild rice beds in the Great Lakes region. As the WDNR has put it, these sloughs "may be the largest freshwater estuarine system of this size, type and quality in the world."⁵



Kakagon-Bad River Slough complex

49. In 2012, the United States designated the Kakagon and Bad River Sloughs as a Wetland of International Significance (a "Ramsar Site") under the 1971 Convention on Wetlands of International Importance, which provides for international cooperation among more than 170 countries for the conservation of the world's most critical wetland habitats.⁶ According to the announcement of the designation,

⁴ See World Wetland Network, *Wetland Globes*, http://www.worldwetnet.org/docs/files/awards_2012/Kakagon-Bad_River_Sloughs_poster.pdf.

⁵ See WDNR, *Estuaries and Coastal Wetlands of Lake Superior*, http://dnr.wi.gov/topic/Wetlands/cw/update/Older_survey_sites/29_Bad_River.pdf.

⁶ See Ramsar, *USA names Lake Superior bog complex* (Mar. 9, 2012), <http://www.ramsar.org/news/usa-names-lake-superior-bog-complex>; Ramsar, *List of Wetlands of International Importance*,

[t]he endangered Gray Wolf (*Canis lupus*) and threatened Canada Lynx (*Lynx Canadensis*) are two rare and elusive species known to inhabit the site. It provides necessary and rare feeding, resting, and nesting habitat for both migrating and local populations of birds, and one of the two remaining sites for the endangered Piping Plover (*Charadrius melodus*) is located immediately to the north at Long Island.... [A]s the only remaining extensive coastal wild rice bed in the Great Lakes region, it is critical to ensuring the genetic diversity of Lake Superior wild rice.

Tribal members frequent the area primarily for subsistence trapping, hunting, fishing, and to retain historic harvesting techniques[.]⁷

50. The U.S. National Park Service designated the Bad River-Kakagon Slough complex as a National Natural Landmark in 1973, describing it as “an excellent representative of a true freshwater delta by virtue of its large size, complex mixture of marsh, bog and dune vegetation types, and undisturbed condition.”⁸

51. The USFWS has explained that the

Kakagon and Bad River Sloughs complex is both culturally and ecologically significant due to its diversity of habitats The Sloughs have a long list of previous recognitions including designation as: a National Park Service National Natural Landmark, a Nature Conservancy Priority Conservation Area, a Wisconsin Land Legacy Place, a Wisconsin Bird Conservation Initiative Important Bird Area, a Wisconsin Wetlands Association Wetland GEM, and a Wisconsin Coastal Wetland Primary Inventory Site. Indeed, this coastal wetland ecosystem is recognized to be among the richest and most extensive of its kind.⁹

https://rsis.ramsar.org/sites/default/files/rsiswp_search/exports/Ramsar-Sites-annotated-summary-United-States-of-America.pdf?1491490956.

⁷ See Ramsar (Mar. 9, 2012), *supra* note 6.

⁸ See U.S. National Park Service, *National Natural Landmarks*, <https://www.nps.gov/subjects/nlandmarks/site.htm?Site=KASL-WI>.

⁹ See USFWS, *Bad River Band Celebrates the Kakagon and Bad River Sloughs*, <https://www.fws.gov/midwest/news/BadRiverCelebration.html>.



Kakagon River



Bad River-Kakagon Slough

52. In sum, the Band's centuries-long tradition of stewardship of the lands and waters within and around the Reservation, and the sustenance it draws from those resources in return, are the weft and warp of its social fabric, the central premise of its identity as a People, the foundation of its federally protected treaty rights, and the very reason the Reservation remains a world-class environmental treasure. As Tribal Chairman Mike Wiggins, Jr. explained in 2012:

The Kakagon and Bad River Sloughs wetland complex represent everything our Tribal People hold dear and sacred on many different levels. Spiritually, the place and everything it has, the clean water, the winged, the seasons, the rice and fish, connects us with our ancestors and the Creator. The Sloughs sustain the physical well-being of our community with foods such as wild rice, fish, cranberries, waterfowl, venison, and medicines. From an Anishinabe (Chippewa) world-view perspective, the wetlands ecosystem is a tangible representation of our values of caring for the environment.... There is water purification, ecological harmony, and people who are interwoven into this place where the Bad River Reservation dovetails with Lake Superior.¹⁰

THE ENBRIDGE LINE 5 PIPELINE

53. In the early 1950s, Enbridge (then known as the Lakehead Pipeline Company) negotiated with the United States, acting through the Bureau of Indian Affairs as trustee for the Band, for right-of-way easements to install and operate a pipeline across an approximately sixty-

¹⁰ See Bad River Band of Lake Superior Tribe, *Kakagon and Bad River Sloughs recognized as a Wetland of International Importance* (Apr. 5, 2012), <http://www.badriver-nsn.gov/tribal-news/200-kakagon-and-bad-river-sloughs-recognized-as-a-wetland-of-international-importance>.

foot-wide and twelve-mile-long corridor of land (affecting approximately thirty contiguous parcels) within the Bad River Reservation.

54. Line 5 was installed across the Bad River Reservation in 1953. It is thirty inches in diameter, made of steel with welded seams and coated in coal tar enamel. It is a subsurface pipeline, buried on average between three and five feet deep – though lying shallower at various junctures and now exposed at two locations. One exposure is located in the mainstem of Denomie Creek where the top of Line 5 was exposed in the channel bottom in response to a large rainfall event during the summer of 2018. The second exposure occurred between May and August of 2019 when a span of forty-nine feet of pipeline was exposed in an incised gully. That span is subject to potential further erosion and undercutting.

55. Line 5 originates at a terminal in Superior, Wisconsin. It crosses the Bad River Reservation east of Superior, continues across the Upper Peninsula of Michigan, then crosses beneath the Straits of Mackinac and continues south through Michigan's Lower Peninsula, traversing the St. Clair River and ending at a terminal in Sarnia, Ontario, Canada, roughly sixty miles northeast of Detroit.

56. Line 5 is principally a thoroughfare for Canadian oil. It transports up to 540,000 barrels (approximately twenty-three million gallons) of crude oil and natural gas liquids daily that originate in Alberta, Canada (where they are transported by other Enbridge pipelines until they reach Superior), the majority of which are ultimately refined in Ontario for use outside the United States.

THE EXPIRED EASEMENTS

57. The easements under which the pipeline was installed on the Bad River Reservation in the 1950s were renewed in the 1970s and again in 1993.

58. By their express terms, fifteen of the easements that were renewed in 1993 were “limited as to tenure for a period not to exceed 20 (Twenty) years, beginning on June 3, 1993, and ending on June 2, 2013[.]” The Band holds between a forty-percent and a ninety-percent ownership interest in eleven of the fifteen parcels to which the now-expired easements attached.¹¹

59. Those easements further expressly required as follows:

At the termination of this Grant of Easement, [Enbridge] shall remove all materials, equipment and associated installations within six months of termination, and agrees to restore the land to its prior condition. Such restoration may include, but not be limited to, filling, leveling, and seeding the right of way area.

60. Enbridge accordingly was under a legal duty to cease the flow of oil across the parcels by June 2, 2013, and to remove the pipeline from those parcels and to restore them to their prior condition within six months, or by December 2, 2013. Following that date, Enbridge had no legal right to use or possess any portion of those lands.

61. Enbridge did not seek the Band’s consent to renew the easements prior to June 2, 2013. It instead continued – upon the expiration of the easements and thereafter – to pump oil across the Reservation with no regard for the fact that its legal right to use and possess significant portions of the Reservation right-of-way had expired.

62. On January 4, 2017, the Bad River Tribal Council enacted a Resolution declaring (1) its continued objection to the presence and operation of Line 5 through the Reservation in light

¹¹ Those eleven parcels, with Bureau of Indian Affairs tract identification numbers followed by township/range information, are: BIA 430 3B23 (sec. 29, T. 47N, R. 2W); BIA 430 R 49 (sec. 5, T. 46N, R. 3W) (sec. 18, T. 47N, R. 3W); BIA 430 3H46 (sec. 7, T. 46N, R. 2W) (sec. 26, T. 47N, R. 2W); BIA 430 S 13 (sec. 14, T. 47N, R. 3W) (sec. 23, T. 47N, R. 3W); BIA 430 3H318 (sec. 22, T. 47N, R. 3W); BIA 430 3H308 (sec. 17, T. 47N, R. 3W); BIA 430 E 33 (sec. 16, T. 47N, R. 3W); BIA 430 3H322 (sec. 23, T. 47N, R. 3W); BIA 430 E 532 (sec. 16, T. 47N, R. 3W); BIA 430 R 146 (sec. 28, T. 47N, R. 2W); BIA 430 E 266 (sec. 16, T. 47N, R. 3W).

of the significant risk of pipeline failure and the catastrophic economic, environmental, and cultural harm such a failure would cause the Band; (2) its insistence that it would not consent to new easements; and (3) its determination to take “all action permitted under the law” to end Enbridge’s ongoing violation of the Band’s rights in its Reservation lands.¹²

63. A mediation ensued, but the Band and Enbridge have been unable to reach an agreement regarding the timing of the removal of the pipeline from the Reservation.

64. The burden placed on the Band by Enbridge’s ongoing activities on the Reservation has been significant and has included one calamitous accident and another that could have resulted in loss of life or property, as well as continuous alteration to the Reservation’s natural habitat and resources.

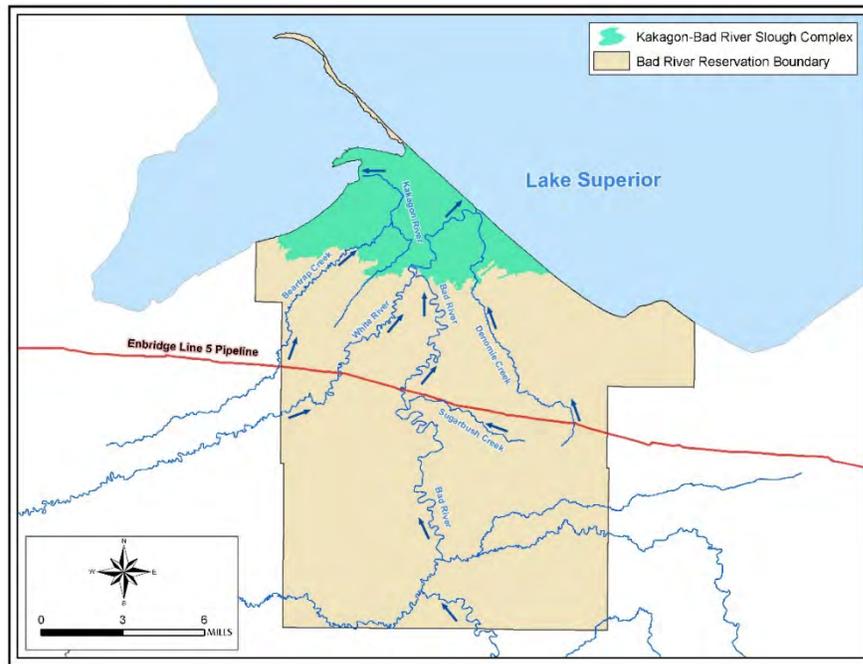
THE THREAT POSED BY LINE 5 AND ENBRIDGE’S HISTORY OF PIPELINE FAILURE

65. Enbridge’s operation of Line 5 on the Reservation constitutes a grave public nuisance. It threatens the treaty-protected rights of the Band, enjoyed and exercised by its members, to engage in fishing, hunting, and gathering for subsistence, cultural, and commercial purposes, and to steward Reservation resources not only for this generation but for the generations to come.

66. This threat has a great deal to do with geography. Line 5’s west-east path across the Reservation traverses the Bad River, the White River, and their numerous tributaries, as well as numerous tributaries of the Kakagon River. All told, there are at least fourteen mapped river and stream crossings over Line 5 within the Reservation. From the points at which these waters pass over the path of the buried pipeline, they flow northerly and empty directly into the Kakagon-

¹² Available at <http://www.badriver-nsn.gov/tribal-operations/natural-resources/pipeline-information>.

Bad River Sloughs (shown in green on the following map) and Lake Superior. An oil spill from Line 5 at or near a water crossing on the Reservation would follow those same trajectories and wreak havoc on the Band's treaty-protected rights to fish, hunt, gather, and to maintain the integrity of the watershed environment.



67. Should it fail, then, Line 5 is positioned to discharge crude oil to the Sloughs and into Lake Superior, endangering the staggering profusion of flora and fauna that members of the Band and their forbears have protected and utilized since long before European contact, and which account for the Sloughs' present-day reputation as a wetlands of global importance. This is precisely the fear that the Tribal Council highlighted in its January 4, 2017, Resolution:

[S]urface water studies demonstrate that a crude oil spill at the Waabishkaaziibi (White River) or Mashkiigon-ziibi (Bad River) would be catastrophic to the health and economy of the Odanah, WI community; river currents would impact coastal wetlands and wild rice beds, and traditional fishing areas in Anishinaabeg-gichigami (Lake Superior)

[A] pipeline break at these places will nullify our long years of effort to preserve our health, subsistence, culture and ecosystems, and sacrifices members have made instead of pursuing the possibility of short-term economic gain.¹³

68. Compounding the threat created by its highly problematic location, Line 5 has been buried in Reservation soils for sixty-six years. As pipelines age, the risk of a rupture increases due to factors including the breakdown of the pipeline coating exposing the underlying steel to corrosion, particularly in environments that transition between wet and dry soils, and cumulative stresses on the pipeline that can exacerbate latent defects in its materials, welding, and installation. As PHMSA has explained, “[o]ver time, corrosion and outside forces can degrade a pipeline to the point that a spill or release might occur.... [A]s pipelines age and environmental conditions change, a pipeline can become susceptible to corrosion.”¹⁴

69. Another common cause of pipeline failure is “fatigue cracking,” which can occur as pipelines are subject to repetitive stresses on the metal – for example, as a result of alternating increases and decreases in pressure as oil is pumped through them in cycles. The National Transportation Safety Board (“NTSB”) describes fatigue cracking as

a progressive cracking of structural material that occurs under repeated loading and may eventually lead to failure. The fatigue crack grows with cyclic loading until the crack reaches a critical length at which the stresses cause it to grow unstably leading to structural failure. Fatigue cracks can initiate at microscopic flaws or weak spots in the material. Once initiated, cracks can grow at stress levels that are quite low in comparison to the material’s yield strength.¹⁵

70. In other words, fatigue cracking occurs as a result of, among other causes, the repeated pressures of pumping oil through a pipeline over time. As PHMSA explains:

¹³ *Id.*

¹⁴ PHMSA, *Fact Sheet: Pipe Defects and Anomalies* (Dec. 1, 2011), <https://primis.phmsa.dot.gov/comm/FactSheets/FSPipeDefects.htm?nocache=7250>.

¹⁵ NTSB, *Rupture of Enbridge Pipeline and Release of Crude Oil near Cohasset, Minnesota* (July 4, 2002) at 6 n.6, <https://www.nts.gov/investigations/AccidentReports/Reports/PAR0401.pdf>.

One cause-condition of cracks is “cyclic fatigue”. This refers to pipe stress that occurs as a result of fluctuating cycles in operating pressure within the pipe. Fluctuating pressures cause small changes in the pipe’s shape, and those changes in turn can weaken the pipe, *over a long period of time*. Imagine taking a piece of steel and bending it back and forth multiple [times] repeatedly. Eventually the steel will crack, or even break, at the bend.¹⁶

71. Enbridge pipelines of younger vintage than Line 5 have failed due to fatigue cracking. For example, an Enbridge pipeline built in the 1960s failed in November 2007, causing an oil spill near Clearbrook, Minnesota. A fatigue crack had formed during its installation, and by 2007 the repeated pressure of the oil “during the operational life of the pipeline caused the fatigue crack to grow to failure.”¹⁷

72. That same year, an Enbridge pipeline failed in Atwood, Wisconsin, spilling 63,000 gallons of crude oil into the environment. The cause was a manufacturing defect that grew over time under the cyclical pressure of the oil. According to PHMSA, “[t]he fracture propagated across the adjacent upstream girth weld. This original defect grew to failure while in service (under cyclic loads) by a fatigue mechanism.”¹⁸

73. And while the defects, cracks, or other features that lead to failure through fatigue often escape the operator’s notice, the consequences can be catastrophic. For example, when an aging Enbridge pipeline burst from “fatigue cracking” along a welded seam in 2002 and spilled approximately 252,000 gallons of crude oil into a wetlands near Cohasset, Minnesota, Enbridge and other responders determined that the only way to prevent the oil from reaching nearby waterways was to set it on fire. According to the NTSB, this involved

¹⁶ *Supra* note 14 (emphasis added).

¹⁷ PHMSA, *Summary Incident Report, Enbridge Line 3 Crude Oil Leak* (Sept. 30, 2010), https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Enbridge_HL_MN_2007-11-13_508.pdf.

¹⁸ PHMSA, *Failure Investigation Report – Enbridge Line 14 Rupture at Atwood (Owen) WI* (June 11, 2012), http://pstrust.org/wp-content/uploads/2013/05/Enbridge_WI_D.pdf.

coat[ing] the spill's perimeter with chemical fire retardant from tanker planes. After the chemical was placed, flares were shot into the crude oil to ignite the oil.... The burn created a smoke plume about 1 mile high and 5 miles long.¹⁹



Enbridge's burn at Cohasset, 2002



Enbridge's Cohasset plume, 2002

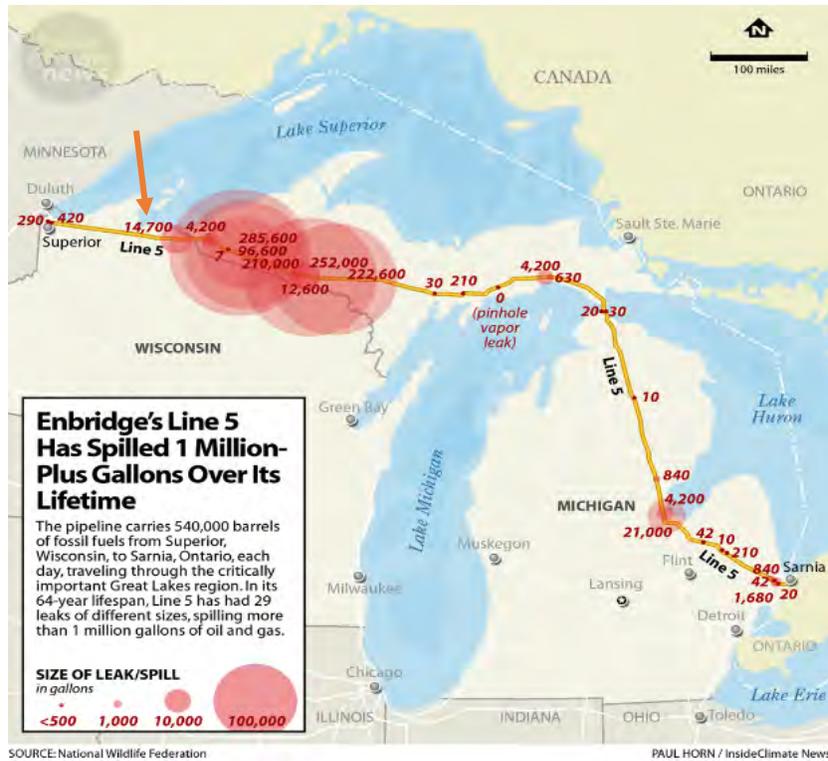
74. These pipeline failures are not anomalies. According to PHMSA data, the U.S. portion of Enbridge's pipeline network experienced 215 hazardous liquids "incidents"²⁰ from 2002 to August 2018 – an average of one every twenty-eight days.²¹

75. Line 5 itself has experienced at least twenty-nine leaks and spills since its installation, resulting in the release of over one million gallons of oil, with several significant spills in close proximity to the Bad River Reservation (which is indicated by the orange arrow in the following map):

¹⁹ *Supra* note 15, at 1, 3.

²⁰ An "incident" is defined by PHMSA as a pipeline failure resulting in any of the following: death or injury requiring in-patient hospitalization; \$50,000 (1984 dollars) or more in total costs; highly volatile liquid releases of five barrels (210 gallons) or more or other liquid releases of fifty barrels (2,100 gallons) or more; liquid releases resulting in an unintentional fire or explosion. See PHMSA, *Pipeline Incident Flagged Files* (June 5, 2019), <https://www.phmsa.dot.gov/data-and-statistics/pipeline/pipeline-incident-flagged-files>.

²¹ *Id.*



Line 5 spills between Superior, Wisconsin, and Sarnia, Ontario²²

76. One of the most infamous of Enbridge's spills occurred in July 2010, when Enbridge Line 6B, installed in 1968, ruptured from a corrosion-related fatigue crack and spilled what the EPA determined to be more than one million gallons of crude oil into a direct tributary of the Kalamazoo River in southern Michigan.

77. The rupture of Line 6B resulted in catastrophic damage to the lands, waters, wildlife, and other resources of that watershed. As the NTSB found, "[t]he oil saturated the

²² See Sabrina Shankman, *Spills on Aging Enbridge Pipeline Have Topped 1 Million Gallons, Report Says*, Inside Climate News (Apr. 26, 2017), <https://insideclimatenews.org/news/25042017/enbridge-pipeline-mackinac-line-5-michigan-oil-spill-risk>; Garret Ellison, *Enbridge Line 5 has spilled at least 1.1 million gallons in past 50 years*, MLive (Apr. 26, 2017), https://www.mlive.com/news/2017/04/enbridge_line_5_spill_history.html.

surrounding wetlands and flowed into the Talmadge Creek and Kalamazoo River.”²³ To date that spill has affected more than thirty-one miles of waterways and wetlands. The NTSB has declared the Enbridge Line 6B spill to be the costliest inland oil spill in United States history.²⁴



Enbridge Line 6B spill, Marshall, Michigan, 2010

78. In addition to the fallibility of pipelines, the Line 6B calamity also demonstrated the fallibility of the people and organizations that operate them. The NTSB concluded that “the rupture and prolonged release were made possible by pervasive organizational failures at Enbridge[.]”²⁵ These failures included that Enbridge “staff failed to recognize that the pipeline had ruptured until notified by an outside caller more than 17 hours later.”²⁶

²³ NTSB, *Accident Report: Enbridge Incorporated Hazardous Liquid Pipeline Rupture and Release, Marshall Michigan* (July 25, 2010) at xii, <https://www.nts.gov/investigations/AccidentReports/Reports/PAR1201.pdf>.

²⁴ See NTSB, *News Release: Pipeline Rupture and Oil Spill Accident Caused by Organizational Failures and Weak Regulations* (July 10, 2012), <https://www.nts.gov/news/press-releases/Pages/PR20120710.aspx>.

²⁵ *Supra* note 23, at xii-xiii.

²⁶ *Id.*

79. In addition to the company's errors, the destructive effects of the Line 6B spill were compounded by the wetland location of the rupture, which delayed the clean-up efforts. According to the NTSB, as shown in the following photograph, "[t]he wetland conditions in addition to the crude oil release made it difficult for vacuum trucks and excavators to get near the rupture location. Large wooden matting had to be placed around the rupture location to bring heavy equipment close to the release."²⁷



Vacuum truck on wooden matting near Line 6B spill, 2010

80. These difficulties posed by spongy wetland soils existed despite the fact that the Line 6B spill occurred near a relatively developed area of southern Michigan, with an interstate highway and other paved roads and towns very near at hand. By contrast, responders to a Line 5 spill on the Bad River Reservation would confront far more expansive and remote wetlands in an area that is largely roadless:

²⁷ *Id.* at 4.



Bad River watershed downstream from Line 5

81. While Enbridge has touted improvements in its crack detection and pipeline integrity protocols since the Line 6B spill, according to PHMSA data Enbridge pipelines experienced 122 incidents between 2011 and 2018.²⁸ Indeed, in 2018, a State of Minnesota Administrative Law Judge, assessing the viability of alternative routes for Enbridge Line 3 in that state, observed that

[w]hile [Enbridge] vows that its spill detection mechanisms have been enhanced since 2010, [Enbridge] still relies, in part, on the public to report leaks, and the Marshall [Line 6B] spill remains a recent example of how aging pipelines, combined with a fallible leak detection system, can have catastrophic results.²⁹

82. Indeed, when PHMSA investigated a rupture at an Enbridge facility in Oklahoma several years after the Line 6B spill in Michigan it concluded, with direct echoes of that calamitous event, that “[t]he primary cause of the leak was the presence of an undetected internal corrosion defect that extended through the pipe wall and produced a substantial crude oil release that went

²⁸ *Supra* note 20.

²⁹ Minnesota Office of Administrative Hearings for the Public Utilities Commission, *Application of Enbridge Energy, LP, for a Certificate of Need for the Line 3 Project in Minnesota, Findings of Fact, Conclusions of Law, and Recommendation* (Apr. 23, 2018) at 236, https://mn.gov/oah/assets/2500-32764-2500-33377-enbridge-line-3-report_tcm19-336838.pdf.

undetected for almost 24 hours” as a result of an Enbridge operator’s “misinterpretation” of alarm data.³⁰

83. Within the past year, explosions on Enbridge natural gas pipelines have resulted in substantial environmental harm and property destruction. In the fall of 2018, an Enbridge natural gas pipeline line ruptured and exploded in British Columbia, near a First Nation village.³¹ In early 2019, an Enbridge pipeline in Ohio ruptured with the resulting explosion visible from miles away.³²



Enbridge explosion, British Columbia, 2018



Enbridge explosion, Ohio, 2019

84. The causes and full scope of the environmental destruction caused by these events are not yet known. But what is clear is that Enbridge’s modern pipeline inspection technology and integrity management systems did not anticipate these incidents, let alone prevent them from happening.

85. Nor is the threat to the Bad River Reservation posed by Line 5 limited to a full-blown pipeline rupture. Pipelines can develop “pinhole” leaks or very minor cracks that discharge

³⁰ PHMSA, *Failure Investigation Report – Enbridge Pipelines, LLC, Tank 3013 24-inch Fill line failure in Cushing, OK* (Feb. 24, 2014) at 7, <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/safety-reports/17981/enbridge2013-05-17-final-internet.pdf>.

³¹ Global News, *Enbridge natural gas pipeline explodes near Prince George* (Oct. 10, 2018), <https://globalnews.ca/video/4531983/enbridge-natural-gas-pipeline-explodes-near-prince-george>.

³² CBC News, *Enbridge pipeline explosion sends fireball into Ohio sky* (Jan. 22, 2019), <https://www.cbc.ca/news/canada/calgary/enbridge-ohio-pipeline-explosion-1.4987897>.

oil or other hazardous liquids into the environment slowly over time. Such a leak was discovered on Line 5 in the Upper Peninsula of Michigan in 1990, though not until it had released 630 gallons of crude oil into the environment.³³ Another was discovered in 2014, and two more were discovered as recently as November 2017.³⁴

86. Such leaks can escape notice by operator leak detection systems for extended periods because they usually do not result in pressure drops significant enough to be detectable by those systems. For example, in February 2004, an Enbridge pipeline that had been installed in 1957 leaked over 42,000 gallons of crude oil near Grand Rapids, Minnesota, through what Enbridge in its report to PHMSA described as a “slow, weeping crack.”³⁵

87. In 2011, an Enbridge pipeline in Canada leaked what the company originally estimated to be 168 gallons of crude oil but later revised to as high as 63,000 gallons. According to the CBC:

Enbridge officials say they don’t know how the leak began, but they said the oil leaked out of an opening about the size of a pinhole.

Oil coming out of such a small opening has, over time, created a spill about half a hectare in size, according to the company.

[An Enbridge official] said Enbridge makes regular aerial surveillance checks on the ... pipeline and uses internal inspection tools to detect leaks. [cont’d]

³³ See Garret Ellison, *supra* note 22.

³⁴ Keith Matheny, ‘Pinhole’ leak in U.P. gas pipeline raises fears, Detroit Free Press (Dec. 16, 2014), <https://www.freep.com/story/money/business/michigan/2014/12/17/enbridge-pipeline-gas-oil-leak-straits-mackinac/20500397/>; Jim Malewitz and Craig Mauger, ‘History of failure’ highlights Line 5 risks outside Straits of Mackinac, Bridgemi (July 11, 2018), <https://www.bridgemi.com/michigan-environment-watch/history-failure-highlights-line-5-risks-outside-straits-mackinac>.

³⁵ PHMSA, *Summary Incident Report* (Sept. 30, 2010) (p. 4 of Enbridge Report), https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Enbridge_HL_MN_2004-02-19_508.pdf.

But in the latest case, those systems failed because the hole was so small, he said.³⁶



Enbridge clean-up of 63,000-gallon pinhole leak in Canada

88. A delivery of hazardous crude oil by a slow “weeping” of this sort into the rivers and wetlands in this remote area on the Reservation could well evade detection for a long period of time.

THE LOOMING THREAT AT THE BAD RIVER MEANDER

89. While the threat of a rupture or leak exists along Line 5’s entire path across the Reservation, the circumstance existing near where the pipeline passes beneath the Bad River is one of impending disaster. Here, the river is carving away the banks and soils that stabilize and support the aging pipeline. This relentless process will soon expose Line 5 to the full force of the river’s currents and the load of fallen trees and other debris conveyed by the River.

90. Because of its hydrology, its topography, and the erosion-prone alluvial soils through which it passes, the Bad River experiences significant channel migration, whereby the

³⁶ CBC News, *No coverup in N.W.T. pipeline leak: Enbridge* (June 7, 2011), <https://www.cbc.ca/news/canada/north/no-coverup-in-n-w-t-pipeline-leak-enbridge-1.1029611>.

moving water causes a constant process of bank erosion and sediment deposition that changes the river's path and location over time.³⁷

91. The NTSB (in examining the cause of multiple catastrophic pipeline ruptures in Texas in 1994, discussed below) has described the process of channel migration as follows:

With time, alluvial stream system banks will erode, sediments will be deposited, and flood plains, islands, and side channels will undergo modification. Alluvial channels continually change position and shape due to the water flow exerted on the streambed and banks....

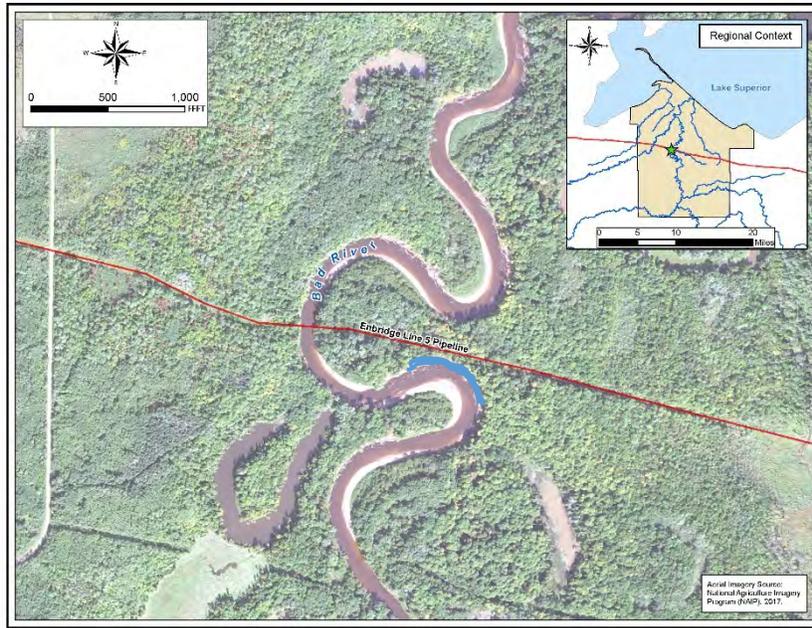
....

As a meandering stream system moves laterally and longitudinally, meander loops move at unequal rates because the differing compositions of the banks result in differing erosion rates. Channel sections appear as slowly developing bulb forms. On highly meandering streams, elongated, bulb-shaped loops are likely to form with the narrowest land area (neck) gradually eroding until the stream cuts directly across it. The cutoff meander loop, no longer a part of the active stream channel, becomes an oxbow lake.³⁸

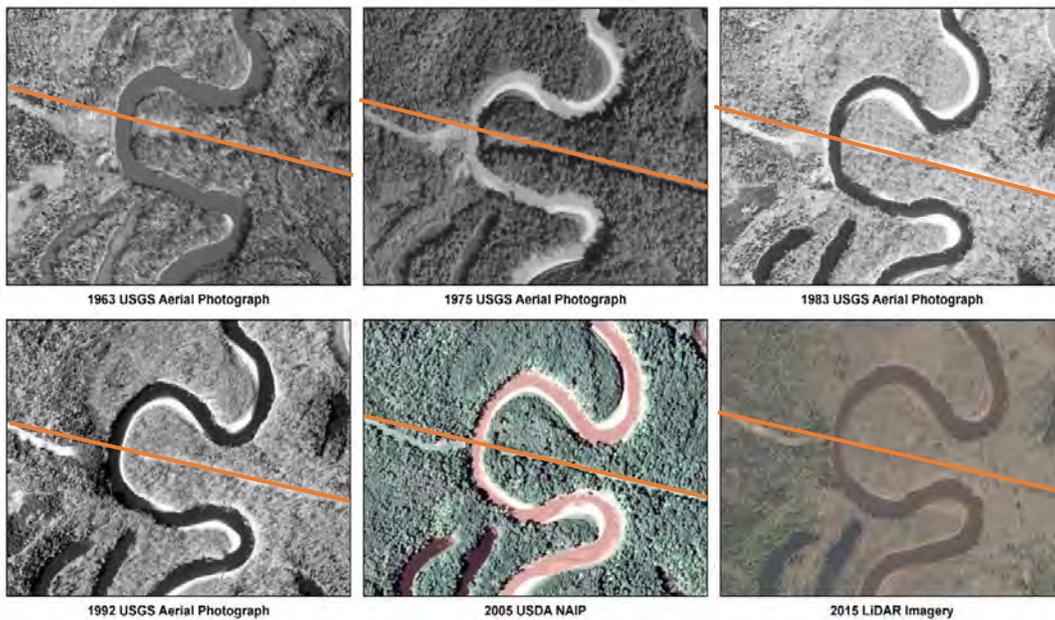
92. Illustrating these processes in dramatic fashion, a meander bend in the Bad River adjacent to where the pipeline is currently buried under the River – and directly upstream from the Kakagon and Bad River Sloughs – has been migrating, causing the river to move ever closer to a portion of the pipeline that is buried much shallower than the adjacent river bottom. That bend is highlighted in blue in the following illustration:

³⁷ For graphic depictions of this process, *see, e.g.*, <https://www.youtube.com/watch?v=4HyHXepETX8>; <https://www.youtube.com/watch?v=izgc3vFimP8>.

³⁸ NTSB, *Pipeline Special Investigation Report: Evaluation of Pipeline Failures During Flooding and of Spill Response Actions, San Jacinto River Near Houston Texas* (October 1994) at 24, http://pstrust.org/docs/ntsb_doc24.pdf.



93. The following sequence of aerial images shows the migration of that bend toward the buried pipeline (highlighted in orange) between 1963 (upper left) and 2015 (lower right):



94. Line 5 was installed in 1953. Ten years later, in 1963, the north bank of the meander bend was approximately 320 feet from the pipeline. In 2015, the distance had decreased to eighty

feet, and today it is only twenty-eight feet. The average encroachment of five feet per year has increased in recent years: from 2015-2019 the yearly bank loss has been thirteen feet on average.

95. The following photographs from Spring 2019, taken three days apart, show the migrating bend that appears in the above aerial images. As the collapsing banks and dislodged trees evidence, the river is literally carving its way toward the buried pipeline:



Bend of Bad River near Line 5, April 11 and 14, 2019

96. Based on the observations detailed above regarding the Bad River's migration, it is anticipated that the river will reach the pipeline in the next two to five years, though this timetable could be shortened significantly depending on factors including river hydrology and hydraulics and the properties and composition of the soils between the river and the pipeline. The Band and Enbridge are monitoring the migration of the river closely.

97. The situation at the meander is a looming disaster. When the migrating channel of the Bad River reaches the pipeline, it will continue to scour the surrounding soil until the pipeline is exposed. When this occurs, the pipeline will be unsupported by underlying or surrounding soils for the length of the exposure, and that unsupported length will continue to increase as the river continues to erode the soils.

98. This will subject the pipeline to numerous stresses far in excess of what it was designed to withstand even when it was new, much less at sixty-six or more years of age. A

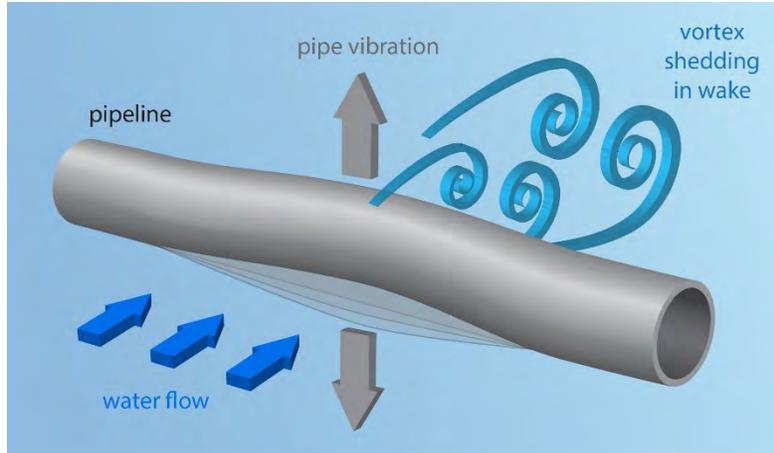
pipeline designed to be supported by and secured in soil will be stripped of that support and protective covering and exposed to the enormous force of the moving water and the pipeline's own considerable, unsupported weight (including the weight of the oil within it at that juncture).

99. Moreover, as the photographs of the eroding banks in paragraph 95 evidence, because the Bad River is constantly eroding its banks in the process of channel migration – not only at the Line 5 crossing but all along the Bad River's course – it is naturally debris-laden, often carrying logs and entire fallen trees in its currents. Exposure of Line 5 to the Bad River will thus result in tremendous and repeated impacts to the unsupported pipeline, as well as the potential for forming debris dams that increase the force of the river on the pipeline. The same is true with respect to ice flows that can cause ice dams and scour.

100. Such forces are demonstrated to stress the welds and walls of pipelines, and to accelerate metal fatigue leading to cracking and rupture.

101. Significantly compounding the danger of these pressures, when the pipeline is exposed to the river's current it may begin to oscillate in an up-and-down pattern. This process is called "vortex-induced vibration," and it is "widely recognized as one of the main causes of fatigue damage to pipelines."³⁹

³⁹ Yang et al., *Experimental study of vortex-induced vibrations of a pipeline near an erodible sandy seabed*, 35 *Ocean Engineering* 301 (2008), <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1028.4347&rep=rep1&type=pdf>.



Vortex-induced vibration⁴⁰

102. The repetitive oscillation of the pipe in this fashion, in combination with the already increased stresses from the force of the water and the unsupported weight of the oil-filled pipe, creates an ideal circumstance for accelerated fatigue cracking. And, as the NTSB has explained, “[o]nce initiated, cracks can grow at stress levels that are quite low in comparison to the material’s yield strength.”⁴¹ That is, movement *weakens* pipelines. Again, as PHMSA has noted, “[i]magine taking a piece of steel and bending it back and forth multiple [times] repeatedly. Eventually the steel will crack, or even break, at the bend.”⁴² Indeed, “[b]ack-and-forth vibration of pipework is one of the most common causes of failure.”⁴³

103. This can result in a complete severance of a pipeline. For example, on July 1, 2011, an ExxonMobil pipeline failed near Laurel, Montana, releasing 63,000 gallons of crude oil into the Yellowstone River. According to an independent investigation:

⁴⁰ For video depictions of vortex induced vibration, see, e.g., <https://www.youtube.com/watch?v=CzPMJMKckyU>; <https://www.youtube.com/watch?v=4nsuUDPD23M>; <https://www.youtube.com/watch?v=kJIRZk6tmVs>; <https://www.youtube.com/watch?v=0vk51CpnAqY>.

⁴¹ *Supra* note 15.

⁴² *Supra* note 14.

⁴³ Neil Parkinson, *How to break a pipeline*, Offshore Engineer (Sept. 1, 2014), <https://www.oedigital.com/news/454989-how-to-break-a-pipeline>.

The pipeline failed at a girth weld as a result of the effects of external loading that occurred due to exposure to flood conditions. The failure mechanism was fatigue crack growth adjacent to a girth weld, followed by ductile fracture of the remaining section due to tensile overload.... *The cracks initiated and grew by fatigue due to vortex-induced vibration (VIV) of the exposed pipe in the river current....*

....

... *VIV is known to have caused other pipelines to fail when the pipelines have become exposed to cross flowing fluid currents.*⁴⁴

104. The result was rapidly accelerated fatigue cracking resulting in a complete circumferential severance – known in the industry as a “guillotine rupture” – of the pipeline:



Guillotine rupture of ExxonMobil pipeline, Laurel, Montana, 2011⁴⁵

105. The forces working on the exposed ExxonMobil pipe were likely exacerbated by “the effect of water flow impinging on debris trapped against the exposed pipe, such as trees and brush ... washed in from upstream,” which “would increase the net tension acting on the pipe over time as more debris accumulates.”⁴⁶

106. PHMSA agreed that the guillotine rupture of the ExxonMobil pipeline involved “oscillating vibrational forces caused by the water flowing over the pipe” and by “additional forces

⁴⁴ Kiefner & Associates, *Investigation of the Silvertip-Billings Crude Oil Pipeline Failure at the Yellowstone River Crossing* (Aug. 2012) (“Kiefner Report”) at 1, 58 (emphasis added) (included in PHMSA, *ExxonMobil Silvertip Pipeline Crude Oil Release into the Yellowstone River in Laurel, MT on 7/1/2011* (Oct. 30, 2012) (“PHMSA Yellowstone River Report”), https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/ExxonMobil_HL_MT_10-2012.pdf.

⁴⁵ Kiefner Report, *supra* note 44, at 12-13.

⁴⁶ *Id.* at 58.

caused by the river current impinging on the increased cross-sectional area of debris that accumulated on the pipe during flooding.”⁴⁷

107. Ultimately, the agency concluded that “the rupture was caused by channel migration and river bottom scour, leaving a large span of the pipeline exposed to prolonged current forces and debris washing downstream in the river.”⁴⁸ The result was catastrophic for the Yellowstone River, and the spill was included in those cited by the Tribal Council in its January 4, 2017, Resolution as among “pipelines of similar setting [that] have broken and caused extensive environmental damages[.]”⁴⁹



Yellowstone River oil spill, Laurel, Montana, 2011

108. Nor was the Yellowstone River spill an anomaly. As one example among many, “[o]n May 31, 2015, a 24-inch natural gas ‘auxiliary’ pipeline crossing the Arkansas River ... failed due to vortex-induced vibration after high water levels eroded the ground cover and exposed the pipeline to the river’s flow.”⁵⁰

⁴⁷ PHMSA Yellowstone River Report, *supra* note 44, at 12.

⁴⁸ PHMSA, *Pipeline Safety: Potential for Damage to Pipeline Facilities Caused by Flooding, River Scour, and River Channel Migration*, 81 Fed. Reg. 2,943, 2,944 (Jan. 19, 2016), <https://www.federalregister.gov/documents/2016/01/19/2016-00765/pipeline-safety-potential-for-damage-to-pipeline-facilities-caused-by-flooding-river-scour-and-river>.

⁴⁹ *Supra* note 12.

⁵⁰ PHMSA, *Advisory Bulletin*, 81 Fed. Reg. 54,512 (Aug. 16, 2016), <https://www.federalregister.gov/documents/2016/08/16/2016-19494/pipeline-safety-clarification-of-terms-relating-to-pipeline-operational-status>.

109. In fact, PHMSA has repeatedly issued warnings to pipeline operators about the dangers of pipeline failure when pipelines are exposed by channel migration, flooding, and river scour. In addition to the Arkansas River and Yellowstone River spills noted above, PHMSA has called attention to others:

On August 13, 2011, Enterprise Products Operating, LLC discovered a release of 28,350 gallons (675 barrels) of natural gasoline in the Missouri River in Iowa. The rupture, according to the metallurgical report, was the result of fatigue crack growth driven by vibrations in the pipe from vortex shedding [*i.e.*, vortex-induced vibration].

....

On July 15, 2011, NuStar Pipeline Operating Partnership, L.P. reported a 4,200 gallon (100 barrels) anhydrous ammonia spill in the Missouri River in Nebraska The 6-inch-diameter pipeline was exposed by scouring during extreme flooding.

On January 17, 2015, a breach in the Bridger Pipeline Company's Poplar system resulted in another spill into the Yellowstone River near the town of Glendive, Montana, releasing an estimated 28,434 gallons (677 barrels) of crude oil into the river and impacting local water supplies. Preliminary information indicates over 100 feet of pipeline was exposed on the river bottom, and a release point was near a girth weld.⁵¹

110. Based on these events, PHMSA has warned as follows:

As shown in these events [r]iver scour and channel migration may damage a pipeline as a result of additional stresses imposed on the pipe by undermining underlying support soils, exposing the pipeline to lateral water forces and impact from waterborne debris. Lateral water forces may cause excessive bending loads that lead to pipeline failures, and possible impact forces from debris in the river or harmonic vibrations from water rapidly passing over pipelines can also increase the potential for pipeline failures.⁵²

111. In 2013 PHMSA issued a formal report to Congress about the extraordinary dangers of pipeline failure when pipelines are exposed to river currents by channel migration or by "new

⁵¹ PHMSA, *Pipeline Safety: Potential for Damage to Pipeline Facilities Caused by Flooding, River Scour, and River Channel Migration*, 81 Fed. Reg. 2,943, 2,943-44 (Jan. 19, 2016), <https://www.federalregister.gov/documents/2016/01/19/2016-00765/pipeline-safety-potential-for-damage-to-pipeline-facilities-caused-by-flooding-river-scour-and-river>.

⁵² *Id.*

channels cut by floodwaters.” In its report, PHMSA informed Congress of numerous such failures between 1993 and 2011:

Amoco Pipeline Co. reported a 390-barrel gasoline spill in the Big Sioux River along the South Dakota and Iowa border occurring on April 1, 1993. The 6-inch diameter pipeline was severed at a girth weld, and the investigation indicated that the pipeline was partially exposed as a result of scouring.

Williams Pipeline Co. reported a 227-barrel liquefied petroleum gas spill in the Big Sioux River in Iowa occurring on July 3, 1993. The report includes speculation that the 6-inch diameter pipeline was damaged by objects carried by floodwaters.

Exxon Pipeline reported a 492-barrel highly volatile liquid spill in the San Jacinto River in Texas occurring on October 19, 1994. The 8-inch diameter pipeline failed after being washed out at the river crossing.

Colonial Pipeline Co reported a 20,000-barrel gasoline spill in the San Jacinto River in Texas occurring on October 20, 1994. The 40-inch diameter pipeline was severed by a new river channel caused by flooding.

Colonial Pipeline Co reported a 10,000-barrel diesel fuel spill in the San Jacinto River in Texas occurring on October 20, 1994. The 36-inch diameter pipeline was severed by the same new river channel as the 40-inch diameter pipeline listed above.

Texaco Pipeline reported a 5,350-barrel crude oil spill in the San Jacinto River in Texas occurring on October 21, 1994. The 20-inch diameter pipeline was severed by a new river channel caused by flooding.

Texas Eastern Product Pipeline reported a 3,181-barrel gasoline spill in the Red River in Louisiana occurring on December 20, 1994. The 20-inch diameter pipeline failed after being washed out during high flow conditions in the river.

Chevron reported a 4,000-barrel crude oil spill in Fresno County, California, occurring on March 11, 1995. The 18-inch diameter pipeline failed at a girth weld after soil eroded from around the pipeline and debris struck the pipeline.

Conoco reported a 1,500-barrel propane spill in Pole Cat Creek in Oklahoma occurring on October 7, 1998. The 10-inch diameter pipeline failed after soil eroded from around the pipeline and debris struck the pipeline.

Mid Valley Pipeline reported a 6,909-barrel crude oil spill in the Kentucky River in Kentucky occurring on January 26, 2005. The 22-inch pipeline failed at a girth weld adjacent to the river due to external stress caused by soil subsidence.

Shell Pipeline Company reported a 3,245-barrel crude oil spill at a levee in Louisiana occurring on September 2, 2005. The 20-inch pipeline passed through a levee that was washed away by the Hurricane Katrina storm surge.

Exxon Mobil reported a 97-barrel highly volatile liquid spill in the Atchafalya River in Louisiana occurring on June 14, 2007. The 8-inch diameter pipeline was exposed by river currents, and a stump lodged under the pipeline contributed to a pinhole leak.

Chevron reported a 5-barrel crude oil spill in Louisiana occurring on December 23, 2009. The failure of the 16-inch pipeline was caused by scouring.

....

NuStar Pipeline Operating partnership reported a 100-barrel anhydrous ammonia spill in the Missouri River in Nebraska occurring on July 15, 2011. The 6-inch diameter pipeline was exposed by scouring during extreme flooding.

Enterprise Products Operating LLC reported a 675-barrel natural gasoline spill adjacent to the Missouri River in Iowa on August 13, 2011. The pipeline was exposed by flood waters and failed at a girth weld due to external loading.⁵³

112. According to PHMSA, all of these events occurred as rivers washed away the soils around buried pipelines, exposing them to forces they were not designed to withstand. In 2017, the Secretary of Transportation informed members of Congress that “[s]ince the 2013 [PHMSA] report to Congress, three additional accidents have occurred at river or creek crossings that were directly impacted or influenced by a flooding event.”⁵⁴

113. The Band’s risk of having its Reservation added to this listing is compounded by the propensity for unstable slopes, over-steepened channel banks, waterway erosion, and destructive flooding in the watersheds that make up the Reservation. During the 1960s, severe flooding in the Bad River watershed forced the entire village of Odanah to be moved several miles

⁵³ PHMSA, *Report to Congress on Hazardous Liquid Pipelines Crossing Inland Waterways* (August 23, 2013) at 7-9, <https://www.phmsa.dot.gov/news/report-congress-hazardous-liquid-pipelines-crossing-inland-waterways-august-2013>.

⁵⁴ Secretary of Transportation correspondence to members of Congress (July 20, 2017), <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/news/18241/report-congress-real-time-monitoring-flood-events-july-2017.pdf>.

from the Bad River floodplain to its current higher location. As recently as 2016, a 200-year flood ravaged the Reservation, destroying roadways and undermining the same alluvial, erosion-prone Reservation soils presently being carved away by the Bad River. The affected roadways were the same transportation corridors that would be critical during an emergency response operation related to any Line 5 spill or rupture:



Bad River Reservation flood, July 2016

114. As shown in the image below, these destructive waters inundated the meander area. Line 5 is shown in yellow and the migrating meander bend is indicated by the orange arrow:



Bad River flood profile, July 2016

115. Such flooding events can greatly accelerate channel migration. As the NTSB has explained:

Changes in channel geometry over time are particularly significant during periods when alluvial channels are subjected to high water. Erosive forces during periods of high water flow may have a capacity as much as 100 times greater than those acting during periods of intermediate or low flow.⁵⁵

116. And as noted, when the Bad River floods, it carries in its currents logs and other debris that could readily impact an exposed pipeline with horrendous results:



Logs carried by Bad River currents during flooding

⁵⁵ NTSB, *Pipeline Special Investigation Report: Evaluation of Pipeline Failures During Flooding and of Spill Response Actions, San Jacinto River Near Houston Texas* (Oct. 1994) at 24, http://pstrust.org/docs/ntsb_doc24.pdf.

117. In April 2019, the Reservation flooded again. The left photograph below (with the path of the buried pipeline in yellow) shows the 2019 floodwaters at the Bad River meander bend overtopping the eroding banks of the bend and inundating and flowing *across* the neck of the meander, where lies the buried pipeline. As depicted in the image on the right, this process eventually will cut a new channel of the river across the neck of the meander, leaving the exposed pipeline in the direct path of the river currents.



Bad River meander (Bayfield Cty. drone image)



Bad River meander (aerial image)

118. The Bad River has forged new channels across meander necks at other locations on the Reservation, both upstream and downstream of the Line 5 crossing, as illustrated by these images from a location approximately two miles downstream of the crossing:



2008 USDA NAIP



2010 USDA NAIP



2011 Google Earth



2013 USDA NAIP



2015 LIDAR Imagery



2017 USDA NAIP

119. The NTSB has explained that “[t]he propensity of alluvial streams to meander, to cut off oxbows during floods ... has been well-documented for many years” and that “flood-caused failures” of pipelines under these circumstances are not infrequent.⁵⁶

120. Indeed, PHMSA identified this process of “new channels cut by floodwaters” as the root cause of many of the ruptures listed by the agency in paragraph 111 above in its warning to Congress. Four of those ruptures, involving pipelines crossing the San Jacinto River in Texas in 1994, occurred “when the San Jacinto River cut through the oxbow” during a flood and exposed previously buried pipelines.⁵⁷ According to the NTSB’s investigation of those spills, examination of the ruptured pipes showed that

their fracture faces included fatigue cracks that had originated from multiple origins. Those pipes were uncovered and their foundations were undermined when the new channel cut through the oxbow. This situation allowed the flood waters to oscillate the unsupported pipelines [*i.e.*, vortex induced vibration] and deflect them southward in the direction of the water flow. These forces caused the pipe walls to bend and buckle, creating fatigue cracks at multiple origins. The fatigue cracks continued to grow, decreasing the effective thickness of the sound pipe wall remaining, until the pipe could no longer contain the internal pressure of the gas or liquid.⁵⁸

121. Ultimately, “[m]ore than 35,000 barrels (1.47 million gallons) of petroleum and petroleum products were released into the [San Jacinto] river,” leading to “explosions and fires erupt[ing] on the river,” with serpentine walls of flame and toxic smoke for miles.⁵⁹

122. It is difficult to overstate the impact on the Band and its treaty-protected rights to steward and utilize its Reservation resources were such an event to take place on the Bad River.

⁵⁶ *Id.* at 40.

⁵⁷ *Id.* at 37.

⁵⁸ *Id.* at 39.

⁵⁹ *Id.* at v and 6. See also <https://www.youtube.com/watch?v=bWEsgM-c2Vk>.

**THE EXPOSURE AND UNDERMINING OF THE PIPELINE IN THE VICINITY OF
A DENOMIE CREEK TRIBUTARY**

123. The circumstances at the Bad River meander are not isolated or anomalous. They instead exemplify the broader reality that the unstable alluvial soils and ever-shifting wetland and riparian environments along Line 5's path render the continued operation of the pipeline on the Reservation untenable. As further evidence of this fact, on August 21, 2019, after the filing of the original Complaint in this action, the Director of the NRD and two of the Band's outside technical consultants made an alarming discovery: a significant segment of pipeline immediately east of one of the major tributaries of Denomie Creek had become wholly exposed, with no covering soil above the pipeline, and no supporting soil beneath it for a considerable portion of its exposed length. The segment is found at a site that Enbridge has designated as a "geohazard" and denominated as "Slope 18."

124. At this location, the south side of the Line 5 right-of-way includes an incised gully with a defined channel that carries flow from a beaver pond located south of the pipeline corridor. The gully runs parallel with Line 5 and has steep and unstable side slopes that are close to vertical in places. The well-defined, continuous channel is located at the bottom of the gully and conveys water flows from east to west into the Denomie Creek tributary. The beaver pond and the channel drain approximately thirty acres of tributary wetland and upland area.

125. On August 21 and over the next several days, intensive efforts in the field by the NRD and its consultants yielded the following observations and conclusions. A forty-nine-foot stretch of pipeline is exposed. Of those forty-nine feet, an approximately forty-two-foot span is unsupported by underlying soil except for three locations along the span with pockets of partially supporting soil that are particularly vulnerable to further erosion. The field observations suggest that a raft of tree roots and soil had slumped into the gully from its south slope, and that this

material had forced the water flow in the gully channel northwards towards the pipeline. This led to erosion of material around and under the pipeline, contributing to its eventual exposure and undermining.

126. A depth-of-cover study conducted by an Enbridge consultant during the summer of 2018 indicated there to be approximately six feet of soil covering the pipeline at that time in the vicinity of the eventual pipeline exposure. All of that soil was eroded away to expose the pipeline, along with the removal of additional soil that had supported the pipeline from underneath.

127. Conservatively, an additional forty feet of pipeline (and potentially more) in the gully remains susceptible to exposure and undermining as a result of further erosion. There exists limited cover over the pipeline along this stretch. A two-year storm event (in other words, a storm event that has a fifty-percent probability of occurring in any given year) could produce sufficient flow in the gully channel to contribute to further erosion and additional pipeline exposure. Moreover, the gully banks exhibit multiple tension cracks evidencing that they are susceptible to further slumping and collapse. The sloughing of additional material into the gully channel could further redirect the flow of water toward the pipeline, exacerbating the process of erosion above, adjacent to, and beneath the pipeline.

128. The NRD and its outside consultants immediately recognized the risk posed by the substantial segment of exposed and unsupported pipeline that they discovered on August 21. Pipelines exposed and unsupported over long spans are subject to stresses they were not designed to withstand, not only from their own weight, but also from the weight of the oil that they carry. They are also highly vulnerable to stresses from shifting soils and debris.

129. The NRD Director left the field at midday on August 21 and notified Enbridge of the discovery. She requested that Enbridge make available personnel to accompany Bad River

staff and consultants back into the field for further investigation that afternoon. Although Enbridge had third-party contractors on the Reservation and in close proximity to the exposed site that day for other pipeline work, the Band received no response to the Director's communication until eight hours later, and that response was perfunctory.

130. On the evening of August 21, alarmed by the company's lack of response and deeply concerned about the exposed and undermined pipeline, Bad River Chairman Mike Wiggins sent an email and letter to Guy Jarvis, Enbridge's Executive Vice President for Liquids Pipelines. Based on the collective judgment of the NRD and its outside technical consultants that an adequate regard for safety warranted cessation of the flow of product through the pipeline, Chairman Wiggins requested that Enbridge immediately halt that flow through the Reservation until the Band and the company could ascertain the full extent of the threat posed by the exposed and unsupported stretch of pipeline. Chairman Wiggins also requested that Enbridge send contractors into the field with the Band to assess the situation firsthand.

131. Mr. Jarvis replied the following morning. Even though Enbridge had not yet sent any personnel into the field, he stated flatly that the exposed pipeline did not present an imminent or emerging safety concern or threat. Mr. Jarvis stated that this conclusion was based on information yielded by Enbridge's automated systems and by its recent technical scans of the pipeline (with no date specified for those scans). This reliance on remote information ran directly counter to one of the cardinal lessons Enbridge professes to have learned from its disastrous Kalamazoo River spill; namely, to avoid an undue reliance on remote information to the exclusion of firsthand observation.

132. In the ensuing days, Enbridge sent personnel into the field, but it refused to shut down the pipeline, even temporarily, while the threat posed by the pipeline exposure and undermining was being assessed.

133. On August 26, the Band asked Enbridge to inform it immediately of its position as to the length of unsupported pipeline that can safely exist at the exposed location, and for the data and calculations supporting that position. The Band further asked that Enbridge provide its position as to the additional length of pipeline that might be susceptible to erosion and undermining at Slope 18. The Band wished to understand the basis for Enbridge's confidence that the pipeline could remain safely in operation. The Band has also asked repeatedly for the technical scans of the pipeline referenced by Mr. Jarvis in his letter of August 22.

134. Enbridge did not supply any of the requested information to the Band until September 17. On that day, it transmitted a summary work sheet stating that the pipeline can have an unsupported span of up to 53.6 continuous feet before the longitudinal stress on it exceeds what Enbridge considers to be allowable levels. Enbridge also reported, without any supporting calculations or explanation, that it would take a one-in-ten-year rainfall event to cause additional exposure of the pipeline. Enbridge has not provided any further substantiation of that position. And it has yet to provide the Band with the technical scans of the pipeline that it has relied on in its professions of confidence as to the pipeline's continued integrity.

135. The very next day, on September 18, the NRD issued a Temporary Emergency Permit under Section 323.22 of its Wetland and Watercourse Protection Ordinance ("WWPO") to authorize the placement of sandbags under the unsupported stretch of pipeline in order to provide temporary support. The NRD was alarmed that Enbridge's own calculation of the maximum allowable unsupported span was only eleven feet longer than the present unsupported span and

only approximately five feet longer than the length of the exposed pipeline. Based on its own analysis and that of its expert consultants, the NRD was not willing to place the same faith as Enbridge in the small pockets of partially supporting soil along the approximately forty-two-foot span of largely unsupported pipeline, as those pockets are particularly vulnerable to being eroded away. And, again based on its own analysis as well as that of its expert consultants, the NRD was far less sanguine than Enbridge about the possibility that some or all of the additional forty-foot stretch of pipeline might become exposed and undermined. The NRD followed up its emergency permit with the grant of an after-the-fact permit under the WWPO on September 20.

136. The Band and Enbridge agree that the sandbags are only a temporary measure to guard against the threat of pipeline rupture at Slope 18. Enbridge has presented preliminary plans for what it considers to be more permanent measures to address that threat. The NRD has provided detailed comments both from it and from its expert consultants on those plans. Those comments raise significant concerns about the feasibility of Enbridge's preliminary proposal. Enbridge has yet to respond to those concerns or to present a more detailed and refined plan.

137. Prior to the commencement of this litigation, Enbridge repeatedly acknowledged and respected the Band's regulatory authority over the pipeline across the Reservation, pursuant to the Band's environmental ordinances. In communications since the exposure of the pipeline at Slope 18 was discovered, Enbridge has denied the existence of such authority, at least with respect to those locations where the pipeline crosses property owned in fee simple by non-Band members, and regardless of the consequences that a rupture of or spill from the pipeline would have on Reservation lands, wetlands, and waterways. Enbridge does acknowledge the Band's regulatory authority under the Clean Water Act, but denies that Clean Water Act jurisdiction exists with respect to the gully channel where the pipeline is now exposed and undermined.

138. Enbridge continues to pump up to 540,000 barrels (approximately twenty-three million gallons) of crude oil and natural gas liquids through the Reservation on a daily basis.

COUNT 1: Public Nuisance – Federal Law

139. The Band incorporates herein all of the above allegations.

140. As a result of bank erosion accelerated by the river's frequent high flows and its local geomorphology, the Bad River is encroaching on and will soon reach the Line 5 pipeline to the east of where the pipeline is presently buried under the river. When this happens, the river will strip the pipeline of its supporting soils and expose it to river flows and an array of other stresses that it was never designed to withstand. The river is also threatening to cut a new channel such that it would flow directly across the pipeline, again exposing the pipeline to the Bad River's flows and other significant stresses.

141. These circumstances are well known and documented to present a high risk of pipeline rupture.

142. The pipeline exposure and undermining in the vicinity of the Denomie Creek tributary, and the potential for further exposure and undermining, likewise present a significant risk of pipeline rupture.

143. Enbridge's continued use of Line 5 to transmit crude oil and other hazardous liquids across the Bad River Reservation under these circumstances presents a grave threat of a rupture, which would unreasonably interfere with the treaty-protected rights of the Band and its members to fish, hunt, and gather wild rice and to control the use of their lands in order to protect the public health, safety, and welfare.

144. Enbridge is accordingly engaged in a public nuisance on the Band's Reservation that threatens uniquely federal interests.

145. The sole remedy of legal damages is inadequate and the Band has no adequate remedy at law.

COUNT 2: Public Nuisance – Wisconsin Law

146. The Band incorporates herein all of the above allegations.

147. As a result of bank erosion accelerated by the river's frequent high flows and its local geomorphology, the Bad River is encroaching on and will soon reach the Line 5 pipeline to the east of where the pipeline is presently buried under the river. When this happens the river will strip the pipeline of its supporting soils and expose it to the river flows and an array of other stresses that it was never designed to withstand. The river is also threatening to cut a new channel such that it would flow directly across the pipeline, again exposing the pipeline to the Bad River's flows and to other significant stresses.

148. These circumstances are well known and documented to present a high risk of pipeline rupture.

149. The pipeline exposure and undermining in the vicinity of the Denomie Creek tributary, and the potential for further exposure and undermining, likewise present a significant risk of pipeline rupture.

150. Enbridge's continued use of Line 5 to transmit crude oil and other hazardous liquids across the Bad River Reservation under these circumstances presents a grave threat of a rupture, which would unreasonably interfere with the treaty-protected rights of the Band and its members to fish, hunt, and gather wild rice and to control the use of their lands in order to protect the public health, safety, and welfare.

151. Enbridge is accordingly engaged in a public nuisance on the Band's Reservation.

COUNT 3: Trespass – Federal Law

152. The Band incorporates herein all of the above allegations.

153. Enbridge continues to transmit crude oil and other hazardous liquids across parcels (identified above) on the Bad River Reservation for which no valid easement exists and in which the Band has ownership interests.

154. Enbridge has failed to remove the pipeline from the aforementioned parcels despite having a lawful duty to do so under the 1993 easements and pursuant to federal statutes and regulations governing rights-of-way on Indian lands.

155. The Band has expressly disclaimed any consent to Enbridge's actions and omissions and has instead insisted that the company cease the flow of oil and remove the pipeline from the Reservation.

156. No other lawful basis exists for Enbridge's continued use of the aforementioned parcels to transmit crude oil and other hazardous liquids across the Reservation.

157. Enbridge is accordingly committing an intentional, ongoing trespass on the Band's Reservation under federal law.

158. The sole remedy of legal damages is inadequate and the Band has no adequate remedy at law.

COUNT 4: Ejectment – Federal Law

159. The Band incorporates herein all of the above allegations.

160. The Band holds valid and lawful ownership interest in eleven parcels (identified above) on the Bad River Reservation for which pipeline easements granted to Enbridge in 1993 have expired, and across and through which Enbridge continues to maintain the presence of the

pipeline and transport up to twenty-three million gallons of crude oil and natural gas liquids per day.

161. By virtue of its valid and lawful ownership interests, the Band is entitled under law to physical possession of the parcels, including those portions presently occupied by the pipeline and by the crude oil and natural gas liquids that pass through it.

162. Enbridge lacks any and all lawful right to maintain and operate its pipeline on those parcels or otherwise to possess those parcels in any way.

163. Enbridge's maintenance and operation of the pipeline on those parcels constitutes the wrongful use and possession of them and operates to withhold rightful possession from the Band. Enbridge continues to use and possess the expired parcels despite notice and knowledge that it has no permission or legal right to be there, and despite a demand from the Band that it leave.

COUNT 5: Band Regulatory Authority – Federal Law

164. The Band incorporates herein all of the above allegations.

165. The Band has the sovereign power to exclude nonmembers from lands on the Bad River Reservation held in trust by the United States for the benefit of the Band and its members, and as an incident of its sovereign authority can regulate nonmember activities on those lands.

166. Enbridge has entered consensual contractual relationships with the Band and its members to operate Line 5 on Reservation lands, some of which agreements have expired. The Band possesses regulatory authority over activities with a nexus to those agreements.

167. The circumstances surrounding the present location and routing of Line 5 across the Bad River Reservation directly affect and threaten the political integrity, the economic security, and the health and welfare of the Band and its members. In treaties entered with the United States

between 1836 and 1854, the Band reserved the right to fish, hunt, and gather both within the Reservation and in and on the waters and lands ceded to the United States. The Band has stewarded the natural resources within the Bad River watershed for centuries, and those resources, including the fisheries in the watershed rivers and Lake Superior, the wild rice stands in the Kakagon and Bad River sloughs, and numerous additional species of flora and fauna, continue to lie at the heart of tribal subsistence, culture, and economy today.

168. A release of crude oil or natural gas liquids from Line 5 on the Reservation, and specifically at the Bad River meander or in the vicinity of the Denomie Creek tributary, would threaten catastrophic harm to the resources that underpin the Band's exercise of its treaty rights and its very way of life. This would in turn imperil the subsistence and the economic security of the Band and its members, as the Tribal Community depends heavily on the responsible use of the fisheries, wild rice, mammals, and other natural resources found on the Reservation.

169. A release of crude oil or natural gas liquids from Line 5 on the Reservation, and specifically at the Bad River meander or in the vicinity of the Denomie Creek tributary, would likewise imperil the political integrity of the Band, which has made it a paramount governmental priority to safeguard the natural resources that are central to the Band's political existence and its members' way of life.

170. Under federal law, the Band's inherent sovereign authority accordingly extends to the siting and operation of the pipeline across Reservation lands, including specifically to its siting and operation in areas of acute geographic sensitivity including the Bad River meander and in the vicinity of the Denomie Creek tributary. The Band's regulatory authority applies to the question whether the pipeline can appropriately and safely continue to be sited at those locations. It likewise applies to proposals to alter the geology and hydrology at those locations in order to allow for the

pipeline to continue to be sited there, both because such alterations in hydrology and geology implicate the core interests of the Band and its members in Reservation lands and in the responsible stewardship of Reservation resources, and because the implementation of flawed or inadequate measures could result in pipeline spills or ruptures likewise threatening catastrophic harm to the rights of the Band and its members.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that this Court:

- A. Enter a declaratory judgment in favor of Plaintiff that Defendants' actions and omissions as set forth in this First Amended Complaint constitute a public nuisance under federal law;
- B. Enter a declaratory judgment in favor of Plaintiff that Defendants' actions and omissions as set forth in this First Amended Complaint constitute a public nuisance under Wisconsin law;
- C. Enter a declaratory judgment in favor of Plaintiff that Defendants' actions and omissions as set forth in this First Amended Complaint constitute a continuing trespass under federal law;
- D. Enter an order ejecting Defendants' pipeline and the crude oil and natural gas liquids that flow through it from the Reservation parcels with expired easements;
- E. Enter an order enjoining Defendants from further use of Line 5 for the transmission of crude oil and natural gas liquids across the Reservation;
- F. Enter an order enjoining Defendants to remove Line 5 from the Reservation in a manner both prompt and protective of the lands and waters of the Reservation and of the ownership, possessory, and use rights of Plaintiff and its members in those lands and waters;
- G. Enter a declaratory judgment in favor of Plaintiff that the continued siting and operation of the pipeline across the Reservation, as well as proposals to alter the geology and hydrology of the Reservation in order to allow for that continued siting and operation, are subject to the Band's regulatory authority;
- H. Enter an order granting Plaintiff its costs and actual attorneys' fees; and
- I. Grant such other relief as the Court deems just under the circumstances.

Dated this 15th Day of October, 2019

Respectfully Submitted,

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