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Iron County
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STATE OF WISCONSIN CIRCUIT COURT IRON COUNTY

CLEAN WISCONSIN
634 W. Main Street, Suite 300
Madison, Wisconsin 53703,

SIERRA CLUB
2101 Webster Street, Suite 1300
Oakland, CA 94612,

350 WISCONSIN
2921 Landmark Place, Suite 215
Madison, WI 53713,

LEAGUE OF WOMEN VOTERS OF WISCONSIN
612 W. Main Street, Suite 200
Madison, WI 53703,

Case No. _____

Case Code: 30607
Administrative Agency Review

Petitioners,

vs.

WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
101 South Webster Street
Madison, Wisconsin 53707

Respondent.

PETITION FOR JUDICIAL REVIEW

Clean Wisconsin, Sierra Club, 350 Wisconsin, and League of Women Voters of Wisconsin (“Petitioners”) file this petition, pursuant to Wis. Stat. §§ 30.209(3)(a), 227.52, and 281.36(3q)(h)1, for review of the Wisconsin Department of Natural Resources’ (“DNR” or “the Department”) decision to issue Wetland and Waterways Individual Permit No. IP-NO-2020-2-NOO471 (“the Permit”), the corresponding water quality certification (“WQC”), and the grant of

coverage under Wisconsin Pollutant Discharge Elimination System (“WPDES”) General Permit No. WI-S067831-06 (“Stormwater GP”) (actions collectively, “Permit Decisions”) to Enbridge Energy, LP (“Enbridge”) for construction of the Line 5 Wisconsin Segment Relocation Project (“the Reroute”). **A true and accurate copy of the Permit is attached to this Petition as Exhibit A. A true and accurate copy of the WQC is attached to this Petition as Exhibit B. A true and accurate copy of the grant of coverage under the Stormwater GP is attached to this Petition as Exhibit C.**

The Permit Decisions were subject to a contested case hearing pursuant to Wis. Stat. §§ 30.208, 227.42, and 281.36, (DHA Case No. DNR-25-0002; DNR Case Nos. 24-048 and 24-049), in which Petitioners took part. The contested case hearing concluded on February 13, 2026, with the issuance of the Division of Hearings and Appeals (“DHA”) decision in the matter (“DHA Decision”).

By law, the DHA decision at the conclusion of the contested case hearing *is* DNR’s final decision in the matter “[u]nless [DNR] petitions for judicial review as provided in s. 227.46(8), Stats.” Wis. Admin. Code NR § 2.155(1). As of this filing, DNR has not sought review of the DHA Decision. Thus, Petitioners seek review of the Permit Decisions as erroneously affirmed and modified by the DHA Decision. **A true and accurate copy of the DHA Decision is attached to this Petition as Exhibit D.**

For the reasons provided below, DNR’s issuance of the Permit Decisions violates Wis. Stat. §§ 1.11, 30.12, 30.20, 281.36, and 283.33, and Wis. Admin. Code NR chs. 102, 103, 150, 205, 216, 299, 345, 350.

PARTIES

1. Clean Wisconsin is a nonprofit corporation organized under the laws of Wisconsin and headquartered at 634 W. Main Street, Suite 300, Madison, Wisconsin 53703.

2. Clean Wisconsin is a nonprofit corporation within the meaning of Wis. Stat. § 181.0103(17).

3. Sierra Club is a nonprofit corporation organized under the laws of California and headquartered at 2101 Webster Street, Suite 1300, Oakland, CA 94612.

4. Sierra Club is a “foreign corporation” within the meaning of Wis. Stat. § 181.0103(13).

5. 350 Wisconsin is a nonprofit corporation organized under the laws of Wisconsin and headquartered at 2921 Landmark Place, Suite 215, Madison, WI 53713.

6. 350 Wisconsin is a nonprofit corporation within the meaning of Wis. Stat. § 181.0103(17).

7. The League of Women Voters of Wisconsin (“the League”) is a nonprofit corporation organized under the laws of Wisconsin and headquartered at 612 W. Main Street, Suite 200, Madison, WI 53703.

8. League of Women Voters of Wisconsin is a nonprofit corporation within the meaning of Wis. Stat. § 181.0103(17).

9. Respondent DNR is an independent agency of the State of Wisconsin, created under Wis. Stat. § 15.34, whose principal office is located at 101 South Webster Street, Madison, Dane County, Wisconsin 53703.

JURISDICTION AND VENUE

10. The DNR decision at issue is an administrative decision that is reviewable under Wis. Stat. §§ 30.209(3)(b), 227.52, and 281.36(3q)(h)2.

11. Venue is proper in this Court pursuant to Wis. Stat. § 227.53(1)(a)3 because Petitioner Sierra Club, as a “foreign corporation” under Wis. Stat. § 181.0103(13), is a nonresident of Wisconsin and property in Iron County will be affected by the decision. *See also* Wis. Stat. § 801.50(3)(a).

12. This petition is timely filed. Wis. Stat. §§ 227.53(1)(a)2.

INTERESTS OF THE PETITIONERS

13. Petitioners’ substantial interests are affected by the Permit Decisions within the meaning of Wis. Stat. § 227.52.

14. Petitioners were parties to the contested case hearing underlying this matter and are aggrieved by DHA’s decision within the meaning of Wis. Stat. §§ 30.209(3)(b) and 281.36(3q)(h)2.

15. Clean Wisconsin is a nonprofit membership organization dedicated to environmental education, advocacy, and legal action to ensure a safe, healthy future for every Wisconsin community by fighting climate change and pollution.

16. Clean Wisconsin has an active membership and advocacy base totaling more than 20,000 individuals, including over 125 members in Ashland and Iron Counties.

17. Clean Wisconsin and its members have a direct interest in protecting the wetlands and waterways at issue from the adverse impacts the Reroute would cause. Members of Clean Wisconsin live, work, and recreate in and around the proposed Reroute, and will be harmed by the degradation of the environment in this area.

18. Sierra Club is a national, grassroots organization that defends the right to a safe, livable climate for future generations, and promotes energy conservation and clean energy alternatives to fossil fuel infrastructure projects that endanger environmental and public health.

19. Sierra Club-Wisconsin is Sierra Club's Wisconsin chapter, with approximately 12,000 members throughout the state, many of whom live, work, and recreate near the proposed Reroute and other Line 5 segments.

20. Sierra Club and its members have a direct interest in protecting the wetlands and waterways at issue from the adverse impacts the Reroute would cause. Members of Sierra Club-Wisconsin live, work, and recreate in and around the proposed Reroute, and will be harmed by the degradation of the environment in this area. The Reroute is contrary to the goals of Sierra Club and its members because the Reroute would endanger Wisconsin's waters, entrench fossil fuel infrastructure in northern Wisconsin for generations to come, and promote continued reliance on fossil fuels rather than energy conservation and clean energy alternatives.

21. 350 Wisconsin is a statewide organization that mobilizes grassroots power to oppose fossil fuel infrastructure due to the significant environmental impacts resulting from its construction and operation, and promote sustainable practices and clean renewable energy in Wisconsin communities.

22. 350 Wisconsin has roughly 300 active members who reside across Wisconsin, including in Ashland and Iron Counties, where the Reroute would be constructed.

23. 350 Wisconsin and its members have a direct interest in protecting the wetlands and waterways at issue from the adverse impacts the Reroute would cause. The Reroute would directly undermine the goals and efforts of 350 Wisconsin and its members and would impact 350

Wisconsin's members who rely on and use water resources impacted by construction of the Reroute.

24. The League of Women Voters of Wisconsin is a statewide organization that advocates for water quality improvements throughout the Great Lakes Basin with an emphasis on water pollution prevention, and promotes sustainable, efficient, and environmentally conscious methods for energy use to dramatically lower greenhouse gas emissions.

25. The League operates at the state level with grassroots support from 21 local leagues, including the League of Women Voters of Ashland and Bayfield Counties ("LWV-ABC"), whose members live, work, and recreate along and near the path of the proposed Reroute.

26. The League and its members have a direct interest in protecting the wetlands and waterways at issue from the adverse impacts the Reroute would cause. The Reroute is inconsistent with the League's positions regarding water quality protection, reducing greenhouse gas emissions, and advancing renewable energy. Members of the League and LWV-ABC who live, work, and recreate near the path of the proposed Reroute, including affected and abutting landowners, would experience physical and economic damage to properties, drinking water contamination, the prevention of quiet enjoyment of property, and impaired ability to recreate.

LEGAL BACKGROUND

Wetland Individual Permit

27. DNR has authority to issue wetland permits for discharges into wetlands in Wisconsin. *See Wis. Stat. § 281.36.*

28. Unless the discharge is covered by a wetland general permit or an exemption, any person wishing to proceed with a discharge into any wetland must apply for a wetland individual permit. *See Wis. Stat. § 281.36(3m)(a).*

29. DNR may only issue a wetland individual permit if it finds that:
- A. The proposed project represents the least environmentally damaging practicable alternative taking into consideration practicable alternatives that avoid wetland impacts;
 - B. All practicable measures to minimize the adverse impacts to wetland functional values will be taken; and
 - C. The proposed project will not result in significant adverse impact to wetland functional values, significant adverse impact to water quality, or other significant adverse environmental consequences.

See Wis. Stat. 281.36(3n)(c).

30. DNR must consider the direct, cumulative, and secondary impacts of the proposed project to wetland functional values, the impact of the applicant's mitigation plan on wetland functional values, and the net positive or negative environmental impact of the proposed project when assessing impacts to wetland functional values. *See* Wis. Stat. § 281.36(3n)(b).

31. DNR must require a mitigation plan for any wetland individual permit it issues; however, applicants for wetland individual permits are not entitled to a “. . . permit or any other approval in exchange for conducting mitigation.” Wis. Stat. § 281.36(3n)(d).

32. DNR must have sufficient information to consider the standards in sub. (3n)(b)-(c) at the time of permit issuance. *Meteor Timber v. DHA*, 2022 WI App 5, ¶¶63-64, 400 Wis. 2d 451, 969 N.W.2d 746. Further, DNR must assess the impacts of the “proposed project” as a whole and not just the physical footprint of wetlands within a proposed project. *Kohler v. DNR*, 2024 WI App 2, ¶3, 410 Wis. 2d 433, 3 N.W.3d 172.

33. Mitigation required under a permit must comply with rules promulgated by DNR, including rules requiring plans to restore wetlands to contain baseline information, monitoring provisions, and performance standards that define successful restoration. Wis. Stat. § 281.36(3n),(r); Wis. Admin Code NR ch. 350.

Waterways Individual Permit

34. DNR has authority to issue permits for activities and projects affecting navigable waters under Wis. Stat. ch. 30, including but not limited to Wis. Stat. §§ 30.12 and 30.20, both of which generally require DNR to find that the project and activities are in the “public interest.”

35. Wis. Stat. § 30.12 regulates the placement of structures and materials in Wisconsin’s navigable waters.

36. The placement of structures and materials in Wisconsin’s navigable waters is prohibited “[u]nless an individual or a general permit has been issued under this section or authorization has been granted by the legislature.” Wis. Stat. § 30.12(1).

37. Only “riparian owners” are eligible to apply for an individual permit under Wis. Stat. § 30.12. Wis. Stat. § 30.12(3m)(a).

38. In addition, the placement of structures and materials by a riparian owner must be “for the owner’s use.” *Id.*

39. Applicants for Wis. Stat. ch. 30 permits cannot become or remain “riparian owners” through easements. *See, e.g., Abka P’Ship v. DNR*, 2002 WI 106, 225 Wis. 2d 486, 648 N.W.2d 854; *Berkos v. Shipwreck Bay Condo. Ass’n*, 2008 WI App 122, 313 Wis. 2d 609, 758 N.W.2d 215. *See also* Wis. Stat. § 30.133(1) (prohibiting the conveyance of riparian rights through easements, including “the right to place any structure or material.”).

40. To issue an individual permit under Wis. Stat. § 30.12, DNR must find, among other things, that the structure or deposit “will not be detrimental to the public interest.” Wis. Stat. § 30.12(3m)(c)2.

41. Wis. Stat. § 30.20 regulates the removal of material from the beds of navigable waters.

42. The removal of material from the beds of navigable waters is prohibited unless a person enters a contract with DNR or is issued a general or individual permit by DNR. Wis. Stat. § 30.20(1).

43. To issue a permit under Wis. Stat. § 30.20(1), DNR must find “that the issuance of the permit will be consistent with the public interest in the lake or stream.” Wis. Stat. § 30.20(2)(c).

44. Riparian rights, much less the rights of non-riparians, are subordinate to public rights in navigable waters. *See id.*

45. Dredging is defined in DNR regulations to include “any part of the process of the removal or disturbance of material from the bed of navigable waterways” Wis. Admin. Code NR § 345.03(5).

46. Dredging includes but is not limited to blasting in the beds of navigable waterways. *See id.*

Water Quality Certification

47. Under Section 401 of the Clean Water Act, any applicant for a federal license or permit to conduct any activity which may result in a discharge to navigable waters shall obtain certification from the state in which the discharge will originate that any such activity will comply with applicable water quality standards. 33 U.S.C. § 1341(a)(1).

48. DNR is authorized under Wis. Stat. § 281.12(1) to certify compliance with state water quality standards for any activity requiring a federal license or permit that may result in a discharge to waters of the state. *See* Wis. Admin. Code NR ch. 299.

49. When DNR receives a request for WQC, DNR shall determine whether it has reasonable assurance that the proposed activity will:

- A. Result in a discharge to waters of the state; and
- B. Comply with state water quality standards.

Wis. Admin. Code NR § 299.04.

50. DNR shall, in accordance with its review:

- A. Waive WQC for any activity that will not result in a discharge to waters of the state, will result in wastewater discharges regulated under Wis. Stat. ch. 283, or does not fall within DNR's jurisdiction;
- B. Grant or conditionally grant WQC for any activity that DNR has reasonable assurance will, if conducted in conformity with any applicable conditions, comply with state water quality standards enumerated in Wis. Admin. Code NR § 299.04(1)(b); or
- C. Deny WQC for any project that DNR does not have reasonable assurance will comply with state water quality standards enumerated in Wis. Admin. Code NR § 299.04(1)(b).

Wis. Admin. Code NR § 299.05(3)(c)-(e).

51. No person may conduct any activity which may result in any discharge to waters of the state unless DNR has granted or waived WQC pursuant to Wis. Admin. Code NR ch. 299. *See* Wis. Admin. Code NR § 299.03(1).

52. No federal license or permit shall be granted for any activity which may result in a discharge to navigable waters if the state in which the discharge originates denies WQC, or until the state waives or grants WQC. 33 U.S.C. § 1341(a)(1).

WPDES Construction Site Stormwater General Permit

53. No person may discharge any pollutant to any waters of the state without a WPDES permit issued by DNR pursuant to Wis. Stat. §§ 283.31 or 283.33. *See* Wis. Stat. § 283.31(1).

54. An owner or operator shall obtain a stormwater discharge permit under Wis. Stat. § 283.33 for any “discharge from a discernible, confined, and discrete conveyance of storm water associated with a construction site” *See* Wis. Stat. § 283.33(1)(am).

55. In lieu of an individual permit for a point source discharge into waters of the state, DNR may issue a general permit authorizing discharges from specific categories or classes of point sources located in the applicable, designated area. Wis. Stat. § 283.35(1).

56. DNR may grant applicants coverage under stormwater general permits for eligible discharges. Wis. Admin. Code NR § 216.43-.44.

57. Applicants seeking coverage under the Stormwater GP must develop and implement a site-specific erosion control and stormwater management plan. *See* Wis. Admin. Code NR §§ 216.44, 216.46; *see also* WPDES Permit No. WI-S067831-6 § 3.¹ DNR may withhold GP coverage if the erosion control and stormwater management plans do not comply with the requirements of subchapter III of NR 216. Wis. Admin. Code NR § 216.44(2).

58. DNR may deny or revoke coverage under a stormwater general permit and require an applicant to obtain an individual WPDES permit based on the Department’s review of the notice of intent for coverage or other relevant information. Wis. Admin. Code NR § 216.51(4).

¹ Available online at https://dnr.wisconsin.gov/sites/default/files/topic/Stormwater/FINAL_CSGP_WI-S067831-6_for_reissuance_September_2021_signed.pdf.

59. DNR may withdraw coverage under a general permit and require a point source to obtain an individual permit if, *inter alia*, the source is a significant contributor of pollution or is not in compliance with the terms and conditions of the general permit. Wis. Stat. § 283.35(3)(a)-(b); Wis. Admin. Code NR § 216.51(5)(a)-(b).

60. “Significant contributor” is defined as dischargers who “contribute to or have the reasonable potential to contribute to an exceedance of a water quality standard.” Wis. Admin. Code NR § 216.002(29).

61. Land disturbing construction activity and associated stormwater discharges that affect wetlands but do not comply with wetland water quality standards are not eligible for coverage under the Stormwater GP. WPDES Permit No. WI-S067831-6 § 1.2.2.

62. Stormwater discharges that “will cause or have reasonable potential to cause or contribute to” exceedances of applicable water quality standards are not eligible for coverage under the Stormwater GP. WPDES Permit No. WI-S067831-6 § 1.2.5.

Wisconsin Environmental Policy Act

63. The Wisconsin Environmental Policy Act (“WEPA”) requires DNR, before undertaking any “major action[] significantly affecting the quality of the human environment,” to prepare an Environmental Impact Statement (“EIS”) that evaluates, among other considerations, the environmental impacts of and alternatives to the proposed action. Wis. Stat. § 1.11(2)(c).

64. The EIS must also include “[a] description of the human environment that will likely be affected by the proposed project and alternatives[,]” and “[a]n evaluation of the probable positive and negative direct, secondary and cumulative effects of the proposed project, and alternatives to the proposed project, on the human environment” Wis. Admin. Code NR § 150.30(2)(f) and (g).

65. If information relevant to any content required to be included in an EIS is “incomplete or unavailable,” DNR must identify that information and include a description of its relevance. Wis. Admin. Code NR § 150.30(2)(h).

STATEMENT OF FACTS

66. Enbridge proposes to construct a new, 41.1-mile segment of pipeline through Ashland and Iron Counties to effectuate the Reroute.

67. Construction of the Reroute would require discharge and fill of wetlands and would affect navigable waters, including through placement of deposits and structures in navigable waters. The Reroute would be constructed within the Bad River watershed through complex and ecologically sensitive hydrogeology, crossing nearly 200 waterways and impacting hundreds of acres of wetlands, upstream of the Bad River Reservation, Lake Superior, and the Kakagon-Bad River Sloughs.

68. On December 16, 2021, DNR publicly released a Draft EIS for the Reroute and held a public comment period through April 15, 2022.

69. Petitioners submitted comments on the Draft EIS before the April 15, 2022, deadline, raising concerns about the scope of the EIS, DNR’s consideration of alternatives to the Reroute, lack of baseline data, and analyses of environmental impacts, among other issues.

70. On September 6, 2024, DNR released a Final EIS for the Reroute.

71. On November 14, 2024, DNR issued the Permit, granted WQC with conditions, and granted coverage under the Stormwater GP to Enbridge for the Reroute. DNR also concluded as a matter of law that it had complied with WEPA.

72. On December 12, 2024, Petitioners filed a petition for a contested case hearing pursuant to Wis. Stat. §§ 30.209, 227.42, and 281.36(3q), as well as Wis. Admin. Code NR § 299.05(5)-(7), challenging the Permit Decisions with 16 different objections.

73. As part of the petition for a contested case hearing, Petitioners requested a stay of the Permit Decisions pursuant to Wis. Stat. §§ 30.209 and 281.36(3q)(d)1, alleging that a stay is necessary to prevent significant adverse impacts and irreversible harm to the environment.

74. In making the stay request, Petitioners argued that “[t]he sheer scale of the Reroute and the number of wetlands and waterways to be crossed, dredged, blasted with explosives, and otherwise disturbed by construction makes it exceedingly unlikely that the Reroute would be constructed without significant impacts to the environment, even beyond those acknowledged by DNR ...”.

75. Enbridge responded to the petition on December 23, 2024, opposing the stay of the Permit Decisions and requesting that DNR add the issue of whether DHA can and should modify the Permit Decisions.

76. On January 2, 2025, DNR granted Petitioners’ petition for a contested case hearing on nine issues, which subsumed Petitioners’ 16 objections, but did not include modification of the Permit Decisions as an issue.

77. On January 17, 2025, Enbridge sent a letter to DNR regarding DNR’s January 2, 2025 decision to grant the petition, requesting that DNR include modification of the Permit Decisions as an issue before the case was transmitted to DHA.

78. On January 24, 2025, DNR transmitted the case to DHA and requested a contested case hearing. The transmission included Enbridge’s petition response and follow up letter but did not include modification of the Permit Decisions as an issue.

79. On February 28, 2025, DHA issued an order continuing the stay of the Permit Decisions pending the outcome of the contested case hearing. In continuing the stay, DHA found that “[t]he Petitioners have made compelling arguments that support the continuation of the stays. It is necessary to avoid the likelihood of significant adverse impacts to the environment should the permitted project and/or discharge be allowed to proceed during the pendency of the proceeding.” **A true and accurate copy of Order on Continuing Statutory Stays of the Permitted Activities is attached hereto as Exhibit E.**

80. On March 28, 2025, Enbridge submitted a motion to DHA, requesting that modification of the Permit Decisions be included as an issue for hearing.

81. Petitioners filed a brief opposing the motion on April 4, 2025, arguing that DHA lacked authority to add issues and or to amend invalidly granted permits.

82. On April 15, 2025, DHA issued an order declining to add modification of the Permit Decisions as a separate issue but amending seven of the nine issues to add “whether additional or modified conditions are required.”

83. On April 25, 2025, DHA issued an *Amended* Prehearing Conference Report, Scheduling Order, Order for Publication and Notice of Hearing, which, *inter alia*, established the schedule for the hearing agreed upon by the parties despite applicable statutory deadlines.

84. The contested case hearing began with public testimony on August 12 and September 5, 2025, followed by the parties’ presentation of evidence from September 3 to October 3, 2025.

85. The parties filed simultaneous opening and closing briefs on November 10 and November 24, 2025, respectively.

86. DHA issued a decision in the contested case hearing on February 13, 2026.

Wetland Individual Permit

87. The Permit requires Enbridge to follow various conditions targeted at minimizing impacts to wetland functional values. Exh. A, Conditions 205-238. DNR determined that, if all permit conditions are met, all practicable measures to minimize adverse impacts to wetland functional values will be taken. Exh. A, Finding of Fact 49.

88. DNR found that the Reroute would result in impacts to wetland functional values, some of which would be permanent while others would be temporary impacts caused by construction practices. DNR found the Reroute would cause 0.023 acres of permanent fill, 101.1 acres of temporary impacts, 33.9 acres to be permanently converted to another wetland type (with lower functional value), and 39.1 acres to be temporarily converted. Exh. A, Findings of Fact, 34-40.

89. DNR found these just-mentioned impacts to be “temporary” even though they could persist for decades. Exh. A, Finding of Fact 39.

90. DNR found that, based on Enbridge assessments, the wetlands that would be impacted by the Reroute include many wetlands with “high” or “exceptional” functional values, including for wildlife habitat, flood and stormwater storage, water quality protection, and ground water processes. Exh. A, Findings of Fact 28-32.

91. DNR identified that direct impacts to wetland functional values would be caused by excavation, blasting, vehicle operation, and various other construction activities. Exh. A, Finding of Fact 44(a).

92. DNR identified that cumulative impacts attributable to the Reroute that may occur based on past impacts or reasonably anticipated impacts caused by this or similar projects in the area include other linear utility projects. Exh. A, Finding of Fact 44(b).

93. DNR identified that potential secondary impacts to wetland functional values include inadvertent sediment releases, recurring vegetation management for right of way maintenance, disturbances caused by pipeline maintenance, risk of oil spills, aquifer breachers, and others. DNR further found that permanent wetland conversion will create secondary impacts to ecosystem hydrology, decrease habitat and biodiversity, and increase opportunities for the spread of invasive species. Exh. A, Finding of Fact 44(c).

94. DNR identified that the net environmental impact of the Reroute would be negative. Exh. A, Finding of Fact 44(e).

95. The Reroute would discharge to wetlands in an Area of Special Natural Resource Interest. Exh. A, Findings of Fact 40; Wis. Admin. Code § NR 103.04.

96. The Permit requires Enbridge to follow various conditions targeted at restoring construction areas to their pre-construction condition and functioning. Exh. A, Conditions 239-250.

97. DNR determined that, if constructed in accordance with the permit, the Reroute would not result in significant adverse impacts to wetland functional values. Exh. A, Finding of Fact 59.

98. DNR determined that, if constructed in accordance with the permit, the Reroute would not result in significant adverse impacts to water quality. Exh. A, Finding of Fact 60.

99. DNR determined that, if constructed in accordance with the permit, the Reroute would not result in other significant adverse environmental consequences. Exh. A., Finding of Fact 62.

100. Among the permit conditions DNR relied on was one requiring Enbridge to submit the “actual” acreage and location of impacted wetlands after construction is complete. Exh. A, Condition 234.

101. DNR acknowledged that “[i]mproper wetland restoration” would result in long-term impacts to wetland functional values. Exh. A, Finding of Fact 46.

102. The Permit requires Enbridge to implement a compensatory mitigation strategy to compensate for impacts to wetland functional values. Exh. A, Condition 206. DNR determined that the proposed mitigation would compensate for the wetland functional values lost due to permanent fill, permanent conversion, and temporal loss of wetland functional values. Exh. A, Finding of Fact 58.

103. In the contested case hearing below, Petitioners provided documentary and testimonial evidence to demonstrate that DNR’s decision to issue a wetland individual permit was not supported by sufficient evidence, and that the available evidence shows that the project does not meet permitting standards

104. Among other contentions, Petitioners demonstrated that DNR lacked sufficient information about the location, acreage, and quality of wetlands the project would impact.

105. Petitioners further demonstrated that the direct, cumulative, and potential secondary impacts on wetland functional values from construction activities such as vegetative clearing, use of heavy equipment causing compaction of sensitive wetland soils, trenching, blasting, sheet piling, and horizontal direction drilling would be extensive, and indeed more extensive than DNR acknowledged in the permitting decision.

106. Petitioners further demonstrated that events like aquifer breaches and oil spills would cause catastrophic environmental effects to wetlands and other environmental resources.

107. Lastly, Petitioners demonstrated that given the insufficient information regarding the acreage, location, and quality of wetlands the project would impact, the proposed mitigation strategy will not compensate for impacts to wetland functional values and thus does not meet permitting standards relating to mitigation.

108. Following the hearing, DHA found that “significant portions of the Project’s route have been largely undisturbed by human impact in the last century. The proposed route intersects numerous wetlands. . . . Many wetlands within the Project route are high-quality and exhibit high functional values and high floristic integrity. They are sensitive to disturbances of soils, hydrology, and vegetation.” Exh. D at 6, Finding of Fact 10.

109. The DHA Decision concludes that the evidence in the record is sufficient to establish that permitting standards were met. *Id.* at 15.

Waterway Individual Permit

110. DNR issued the Permit under Wis. Stat. § 30.12 and concluded as a matter of law that “[t]he proposed placement of structures on the bed of navigable waters . . . meets the standards in s. 30.12, Wis. Stats. . . .” Exh. A, Conclusion of Law 3.

111. DNR found in the Permit that the placement of temporary and permanent structures “will not be detrimental to the public interest.” Exh. A, Findings of Fact 71(b) and 72(b).

112. DNR made no finding in the Permit on the property interests Enbridge has in riparian properties along the proposed Reroute nor any finding that Enbridge has the necessary property interests to deposit material and place structures on the beds of navigable waters under Wis. Stat. § 30.12(3m)(a). *See generally* Exh. A.

113. The Permit indirectly acknowledges that Enbridge has only obtained easements in riparian properties. *See, e.g.,* Exh. A, Condition 29.

114. In the contested case hearing below, Petitioners demonstrated that DNR issued the Permit without information sufficient to establish that Enbridge had the necessary property interests to be eligible under Wis. Stat. § 30.12, and did not make the requisite finding of fact in the Permit that Enbridge has the necessary property interests.

115. Petitioners further demonstrated that Enbridge has only obtained temporary and permanent easements from the vast majority of riparian owners along the Reroute, and that Enbridge is not a riparian owner at those properties.

116. Following the hearing, DHA found that Enbridge is only eligible for permits under Wis. Stat. § 30.12 to place permanent structures in navigable waters if the riparian owner is a co-permittee. Exh. D at 29. Since the riparian owners had not applied for the Permit, DHA ordered both the Permit and the WQC modified to prohibit Enbridge from installing permanent structures in navigable waters until a separate permit has been issued. Exh. D at 28-29.

117. The DHA Decision found that this modification was supported by a preponderance of evidence in the record. Exh. D at 29.

118. As of this filing, the applications for separate permits to place permanent structures in navigable waters under Wis. Stat. § 30.12 are pending.

119. DHA also found, following hearing, that a separate permit with the riparian owners as co-permittees was not required to place temporary structures in navigable waters as a matter of law. Exh. D. at 29.

120. DNR issued the Permit under Wis. Stat. § 30.20 and concluded as a matter of law that “[t]he proposed dredging activities in navigable waters, if conducted in accordance with the conditions of this permit, meet the standards in s. 30.20, Wis. Stats., and NR ch. 345, Wis. Adm. Code.” Exh. A, Conclusion of Law 2.

121. DNR issued the Permit under Wis. Stat. § 30.20 with conditions. Exh. A, Conditions 123-127 (blasting), 193-204 (dredging). *See also* Exh. A, Conditions 128-146 (general conditions).

122. DNR found in the Permit that “the dredging of waterways is consistent with the public interest in navigable waters” Exh. A, Finding of Fact 74.

123. In the contested case hearing below, Petitioners demonstrated that dredging includes material removal activities such as trenching and blasting.

124. Petitioners further demonstrated that DNR does not know each blasting location nor had sufficient geotechnical, hydrological, water quality, and other information to determine the impacts on the public interest from blasting in those navigable waters that have been identified.

125. Petitioners further demonstrated that the relevant conditions contained in the Permit would not sufficiently minimize impacts to the public interest from blasting.

126. Following hearing, DHA found that Petitioners had not established that the permitted blasting failed to meet state requirements and waterway permitting standards. Exh. D at 31.

Water Quality Certification

127. DNR granted, with conditions, WQC under Wis. Admin. Code NR ch. 299 and concluded as a matter of law that there is reasonable assurance the Reroute will comply with state water quality standards if conducted in accordance with conditions imposed. Exh. B, Conclusion of Law 1.

128. DNR granted WQC with various conditions targeted at minimizing impacts to water quality. Exh. B, Conditions 1-3, 143 (monitoring for compliance with water quality

standards), 16-41 (erosion and siltation), 47-79 (wetlands), 80-107 (invasives), 144-157 (restoration), 159-231 (surface waters).

129. DNR determined that the Reroute, if constructed as permitted with conditions, will not result in significant adverse impacts to surface or groundwater water quality. Exh. B, Finding of Fact 60.

130. DNR determined that the Reroute, if constructed as permitted with conditions, will protect surface water resources for all designated uses. Exh. B, Finding of Fact 61.

131. DNR determined that the Reroute, if constructed as permitted with conditions, will take all practicable measures to minimize adverse impacts to wetland functional values. Exh. B, Finding of Fact 49.

132. In the contested case hearing below, Petitioners demonstrated that construction activities associated with the Reroute, including but not limited to, vegetation clearing, grading, trenching, blasting, HDD, placement of construction matting, and operation of vehicles and equipment, would have irreversible, adverse impacts to wetland water quality by altering wetland hydrology and substrate, increasing sedimentation and decreasing filtration capabilities, and contributing to habitat destruction.

133. Petitioners further demonstrated that Reroute construction activities, including but not limited to blasting in the bedrock of navigable waterways, would, among other harms, increase erosion and sedimentation, and impede public rights to navigability, recreation, and scenic beauty.

134. Finally, Petitioners demonstrated that WQC conditions intended to monitor for compliance with Wisconsin water quality standards and minimize impacts to wetland and surface water quality erroneously rely on construction, monitoring, and restoration plans that are

conclusory, vague, not supported by sufficient evidence, and lacking adequate baseline information.

135. Following the hearing, DHA found that the Petitioners “failed to establish that the information the Department reviewed was so incomplete or inaccurate that reasonable assurance could not be reached.” Exh. D at 38.

WPDES Construction Site Stormwater General Permit

136. DNR determined that stormwater runoff associated with the Reroute is to be regulated under Wis. Stat. ch. 283 and Wis. Admin. Code ch. NR 216 with coverage under the Stormwater GP. Exh. C.

137. In the contested case hearing below, Petitioners demonstrated that the Reroute would be a “significant contributor” of pollution to waters of the state due to the reasonable potential for exceedances of surface and wetland water quality standards, including but not limited to, sedimentation, turbidity, changes to water flow, releases of drilling fluid, other objectionable deposits resulting from blasting of bedrock in navigable waters that would interfere with public rights in waters of the state, and significant adverse impacts to wetland functional values.

138. Following the hearing, DHA found that the Petitioners “failed to . . . establish[], by a preponderance of the evidence, that the authorized construction activities do not meet the terms and conditions for coverage under the general permit.” Exh. D at 45.

WEPA

139. In the contested case hearing below, Petitioners demonstrated that DNR had insufficient information, such as the failure to identify impacted wetlands and blasting locations, to adequately describe the environment the Reroute will impacts or the impacts to the human environment.

140. Petitioners further demonstrated that DNR failed to identify the relevance of this missing and incomplete information.

141. Following hearing, the DHA Decision found that Petitioners did not show that DNR failed to “provide a genuine analysis of the proposed activities and their environmental consequences, based on hard data.” Exh. D at 41 (citing *Wis. Env’t Decade, Inc. v. Pub. Serv. Comm’n*, 105 Wis. 2d 457, 313 N.W.2d 863 (Ct. App. 1981)).

ISSUES FOR REVIEW

142. DNR’s final agency actions issuing the Permit, WQC, Stormwater GP coverage, and WEPA compliance determination, as affirmed by the DHA Decision, are based on erroneous interpretations of law, findings of fact not supported by substantial record evidence, and determinations made outside the range of delegated discretion. *See* Wis. Stat. § 227.57 (5)-(6), (8).

ISSUE 1: The Permit’s authorization of wetland impacts violates Wis. Stat. § 281.36(3n).

143. Petitioners reallege and incorporate herein each preceding paragraph of this Petition.

144. DHA affirmed DNR’s decision to issue the wetland permit under subsection 281.36(3n) despite concrete evidence that Enbridge’s wetland delineations failed to identify the location and acreage of wetlands within the project corridor and Enbridge’s wetland quality assessments also significantly undervalued wetland functional values. As a result, DNR did not have sufficient information to adequately review the factors in Wis. Stat. § 281.36(3n)(b), nor conclude, as a matter of law, that the standards in Wis. Stat. § 281.36(3n)(c)1-3 have been met.

145. Further, despite construction activities causing significant direct, cumulative, and potential secondary impacts to wetland functional values, Enbridge’s insufficient wetland restoration planning, and inadequate mitigation efforts, the DHA nonetheless determined

Petitioners failed to establish the project did not meet wetland permitting standards. That determination is not supported by substantial evidence in the record. It is also premised on a misinterpretation of the applicable permitting standards and case law applying those standards.

146. The DHA Decision's permit modifications do not cure these problems and are not legally authorized, in any event.

147. DHA's decision to affirm DNR's issuance of the wetland individual permit is thus based on a misinterpretation of law, is outside the discretion granted by law, and not supported by substantial evidence in the record. Wis. Stat. § 227.57(5)-(6), (8).

ISSUE 2: The wetland compensatory mitigation required by the Permit does not meet state standards under Wis. Stat. § 281.36(3r) and Wis. Admin. Code Ch. NR 350.

148. Petitioners reallege and incorporate herein each preceding paragraph of this Petition.

149. Since the amount of mitigation required by the Permit is premised on inaccurate assessments of the extent and duration of wetland impacts, the proposed mitigation strategy will not compensate for impacts to wetland functional values and thus does not meet permitting standards. The DHA Decision is thus based on a misinterpretation of law and not supported by substantial evidence in the record. Wis. Stat. § 227.57(5)-(6).

ISSUE 3: The Permit's authorization to place structures and materials in navigable waters violates Wis. Stat. § 30.12.

150. Petitioners reallege and incorporate herein each preceding paragraph of this Petition.

151. DNR's decision to issue the Permit under sections 30.12, as affirmed by the DHA Decision, is based on the erroneous interpretation of law that the prohibition on placing any structure in navigable waters without a permit only applies to permanent shoreline stabilization

structures, and not to other permanent and temporary structures placed and materials deposited below the ordinary high water mark.

152. The ordered modification authorizing permanent structures to be placed in navigable waters if separate permits with the riparian owner as co-permittee are obtained is also based on the erroneous interpretations of law that:

- A. DHA has the discretion to order such a modification rather than reversing DNR's decision;
- B. Enbridge can exercise rights reserved to riparians by obtaining an easement and nominally adding the actual riparian owner as a co-applicant; and
- C. The proposed permanent structures, which have only been proposed as a part of the Reroute, are for the actual riparian owners' use. *See Wis. Stat. § 30.12(3m)(a).*

153. Authorizing Enbridge, a non-riparian owner with no riparian rights at many proposed navigable water-crossing locations, to place structures in Wisconsin's navigable waters violates the public interest standard in Wis. Stat. § 30.12(3m)(c)2.

ISSUE 4: The Permit's authorization to remove materials from the beds of navigable waters violates Wis. Stat. § 30.20.

154. Petitioners reallege and incorporate herein each preceding paragraph of this Petition.

155. DNR's decision to issue the Permit under sections 30.20, as affirmed by the DHA Decision, is based on the unsupported finding that issuing the permit for blasting "will be consistent with the public interest in the lake or stream." *See Wis. Stat. § 30.20(2)(c).* Undisputed record evidence establishes that whether and where blasting will occur in Wisconsin's navigable waterways to construct the Reroute will not be determined until after permit issuance and that

blasting in as-of-yet unidentified locations is likely. DNR necessarily did not have sufficient evidence to make a public interest finding for each navigable waterway where blasting will occur, which violates Wis. Stat. § 30.20(2)(c).

ISSUE 5: DNR's WQC violates Wis. Admin. Code NR § 299.04(1)(b).

156. Petitioners reallege and incorporate herein each preceding paragraph of this Petition.

157. DNR's certification that the Reroute will comply with Wisconsin's water quality standards, as affirmed by the DHA Decision, is based on the erroneous determinations that DNR has reasonable assurance the Reroute will comply with (1) water quality standards adopted under Wis. Stat. § 281.15; (2) "public interest and public rights standards" under sections 30.12 and 30.20; and (3) the requirements of section 281.36. *See* Wis. Admin. Code NR § 299.04(1)(b)3, 6-7. As established, DNR permit issuance violates the public interest standards in sections 30.12 and 30.20 and the requirements of 281.36, which necessarily means DNR does not have reasonable assurance of compliance with those provisions. *See supra* ¶¶ 153, 155.

ISSUE 6: DNR's grant of coverage under the Stormwater GP violates Wis. Stat. §§ 283.33 and 283.35, and Wis. Admin. Code NR ch. 216.

158. Petitioners reallege and incorporate herein each preceding paragraph of this Petition.

159. DNR's grant of coverage under the Stormwater GP, as affirmed by the DHA Decision, is outside the range of discretion delegated to DNR and is therefore arbitrary and capricious because eligibility for that grant of coverage is subject to compliance with the permit's terms and conditions, which in turn require DNR to determine, *inter alia*, whether the permit will comply with applicable water quality standards. As established, DNR did not have sufficient information to make determinations regarding compliance with wetland water quality standards or

adequately assess adverse impacts to wetland functional values and water quality as required under Wis. Stat. § 281.36(3n)(c). *See supra* ¶ 144. DNR similarly lacked reasonable assurance that the Reroute would comply with surface water quality standards related to the public interest set forth in Wis. Stat. §§ 30.12 and 30.20. *See supra* ¶ 157.

160. Stormwater GP coverage is also predicated on Enbridge's ability to implement the required erosion control plan. *See* Wis. Admin. Code NR §§ 216.44, 216.46; *see also* WPDES Permit No. WI-S067831-6 § 3. Since Enbridge's erosion control plan for the Reroute includes shore stabilization structures designed to prevent sedimentation and since Enbridge does not have authority to install those structures under Wis. Stat. § 30.20, the Reroute is ineligible for coverage under the Stormwater GP.

161. Accordingly, DNR's grant of coverage under the Stormwater GP violates Wis. Stat. §§ 283.33 and 283.35, and Wis. Admin. Code NR ch. 216.

ISSUE 7: DNR's determination that it complied with WEPA violates Wis. Stat. § 1.11 and Wis. Admin. Code NR ch. 150.

162. Petitioners reallege and incorporate herein each preceding paragraph of this Petition.

163. DNR's WEPA compliance determination, as affirmed by the DHA Decision, is erroneous because the EIS does not adequately describe the human environment that will likely be affected, does not evaluate the direct, secondary, and cumulative impacts of the Reroute on the human environment, and fails to identify and describe the relevance of incomplete and unavailable information. Wis. Admin. Code NR § 150.30(2)(f)-(h). These environmental review deficiencies are inextricable linked to the Permit Decisions, which are based on the erroneous interpretations of law and unsupported factual findings discussed above. For example, DNR cannot adequately

describe the environment or the probable impacts thereto without a complete wetland inventory or without knowing all the water resources where blasting will occur.

RELIEF REQUESTED

WHEREFORE, Petitioners request that this Court grant the following relief pursuant to Wis. Stat. §§ 227.52, 227.54, 227.57, 30.209(3), and 281.36(3q):

1. Stay the effectiveness of the Permit Decisions pending resolution of this Petition for Judicial Review;
2. Declare that DNR's Permit Decisions are reversed, set aside, or vacated;
3. Such interlocutory or final relief as is necessary to preserve the interests of Petitioners and other members of the public; and
4. Such other relief as the Court may deem just and equitable.

Dated this 23rd day of February, 2026

Electronically Signed by

Electronically signed by Robert D. Lee

Robert D. Lee (State Bar No. 1116468)

Anya T. Janssen (State Bar No. 1132419)

Skylar U. Harris (State Bar No. 1141131)

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EXHIBIT LIST

Exhibit A Wetland and Waterways Individual Permit No. IP-NO-2020-2-N00471
(Nov. 14, 2024)1-47

Exhibit B Water Quality Certification (Nov. 14, 2024).....48-97

Exhibit C Stormwater General Permit Coverage No. GP-WI-S067831-06
(Nov. 14, 2024)98-101

Exhibit D Division of Hearings and Appeals Decision (Feb.13, 2026)102-154

Exhibit E Division of Hearings and Appeals Stay Order (Feb. 28, 2025)155-158

EXHIBIT A

State of Wisconsin
DEPARTMENT OF NATURAL
RESOURCES
101 S. Webster Street
Box 7921
Madison WI 53707-7921

Tony Evers, Governor

Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



November 14, 2024

Docket # IP-NO-2020-2-N00471

Joe McGaver
Enbridge Energy, LP
11 E. Superior Street, Suite 125
Duluth, MN 55802

Subject: Enbridge Line 5 Wisconsin Segment Relocation Project

Dear Mr. McGaver:

The Department of Natural Resources (Department) has completed its review of your application to place temporary and permanent structures in navigable waterways, temporarily bridge navigable waterways, dredge navigable waterways, drive on the bed of navigable waterways, and to discharge fill in wetlands for the purpose of relocating approximately 41.1 miles of 30-inch diameter crude petroleum pipeline (known as Line 5), collectively referred to as the Line 5 Wisconsin Segment Relocation Project (Project).

Your application is approved. I am attaching a copy of your permit decision. The Section 401 Water Quality Certification decision is being sent under separate cover. This permit decision document lists the conditions that must be followed to protect water quality and habitat. A copy of the permit decision document must be posted on Enbridge's project web page and at various locations of the project site. Please read your permit decision conditions carefully so you are fully aware of what is expected for this Project.

You are responsible for obtaining all other applicable permits or approvals that are required before starting your Project. Your next steps will be to notify the department of any pre-construction meetings, the date you plan to start construction, and again when the Project is complete. Please contact the Department's Office of Energy if you have any questions regarding this permit decision at DNROfficeofEnergy@wisconsin.gov.

Sincerely,

Benjamin Callan
Director, Waterways Program

cc: Tim Drake, ERM
Bad River Band of Lake Superior Chippewa NRD
Red Cliff Band of Lake Superior Chippewa
William Sande, U.S. Army Corps of Engineers
Melissa Blankenship, U.S. Environmental Protection Agency
Kate Angel, DOA
Ashland County Zoning Administrator
Bayfield County Zoning Administrator
Douglas County Zoning Administrator
Iron County Zoning Administrator

Enbridge Line 5 Wisconsin Segment Relocation Project

IP-NO-2020-2-N00471

Enbridge Energy, LP (Enbridge) is hereby granted under Section 30.12, 30.123, 30.20, 30.29, and 281.36, Wisconsin Statutes, a permit to place temporary and permanent structures in navigable waterways, temporarily bridge navigable waterways, dredge navigable waterways, drive on the bed of navigable waterways, and to discharge fill in wetlands as specified in this permit for the purpose of relocating approximately 41.1 miles of 30-inch diameter crude petroleum pipeline (known as Line 5) and installing mainline valves, collectively referred to as the Line 5 Wisconsin Segment Relocation Project (Project) in Ashland, Bayfield, and Iron Counties, subject to the following conditions:

General Conditions

1. Your acceptance of this permit and efforts to begin work on this Project signify that you have read, understood, and agreed to follow all conditions of this permit.
2. Changes to the prescribed crossing techniques may occur only if approved in writing by the Department.
3. References to “you” and “your” include Enbridge and its contractors.
4. In coordination with the Department, you shall hire Independent Environmental Monitors (IEMs) for the purpose of ensuring adherence to the requirements of the Department’s regulatory approvals for this Project. IEMs shall be approved by the Department and shall report directly to, and be under the exclusive direction of, the Department. You shall organize at least one meeting between the Department, IEMs, and Enbridge prior to beginning clearing and construction. You shall provide a minimum of three IEMs for the Project. IEMs shall be staffed at all times Enbridge is actively working on the Project. IEMs shall be equipped the same as Enbridge’s Environmental Inspectors and have access to data collection, management, reporting, and sharing software systems.
5. You shall post an electronic copy of this permit on Enbridge’s project web page and hardcopies at conspicuous locations (including any staging and laydown areas) prior to construction and remaining at least five days after construction, including stabilization. You shall also have a copy of the permit and approved plans available at all times until the Project is complete, including site stabilization, at all field offices and construction sites.
6. All employees, consultants, and contractors who are working on the Project shall be made aware of the permit and how to access it. You shall supply a copy of this permit to every contractor associated with this Project.
7. You shall provide financial assurance mechanism(s) in a form satisfactory to the Department and in an amount sufficient to assure performance of restoration and monitoring requirements of this permit prior to the commencement of construction.
8. You shall post an electronic version of all final plans and Environmental Construction Plan (ECP, dated October 2024) on Enbridge’s Project web page prior to beginning construction. These plans shall be organized, include a table of contents, and remain on the website until (at minimum) the project is completed, including site stabilization.
9. This permit does not authorize any work other than what is specifically described in your application materials, ECP, and as modified by the conditions of this permit. Final Department-approved plans and accompanying documents, as well as plans developed and approved pursuant to the conditions of this permit, are a part of,

Enbridge Line 5 Wisconsin Segment Relocation Project

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and are conditions of, this permit. If you wish to alter the Project or permit conditions, you shall first obtain written approval from the Department.

10. You shall allow access to your Project site(s) during reasonable hours to any Department employee or state-authorized monitor who is investigating the Project's construction, operation, maintenance, or permit compliance.
11. The Department may modify or revoke this permit for good cause, including if the Project is not completed according to the terms of the permit.
12. You, your agent, and any involved contractors or consultants may be considered a party to the violation pursuant to Section 30.292 and 281.36(13), Wis. Stats., for any violations of Chapters 30 and 281.36, Wisconsin Statutes, or this permit.
13. You shall complete the Project, including site stabilization, as described in the approved application plans and in this permit, **on or before November 14, 2027**. If you will not complete the Project by this date, you shall submit a written request for an extension prior to expiration of the initial time limit specified in the permit. Your request shall identify the requested extension date and the reason for the extension. The Department shall extend the time limit for permit or contract for no longer than an additional 5 years if you request the extension before the initial time limit expires. You may not begin or continue construction after the original permit expiration date unless the Department extends the permit in writing or grants a new permit.
14. You shall notify the Department via email at DNROfficeofEnergy@wisconsin.gov before starting construction and again not more than five days after the Project is complete.
15. You shall notify the Department via email at DNROfficeofEnergy@wisconsin.gov within 24 hours of any violations of this permit that you become aware of. At a minimum, this notification shall include the following: when the violation occurred, what the violation was, where the violation occurred, how the violation was corrected, and steps that will be taken to ensure the violation does not reoccur.
16. You shall notify the Department via email at DNROfficeofEnergy@wisconsin.gov within 24 hours of any spills of any hazardous materials affecting wetlands and/or waterways. Spills of hazardous or toxic materials that pose a threat to human health, safety, or the environment shall be cleaned up to the greatest extent practicable. All reportable spills shall also be reported immediately to the Department using the 24-hour toll free hot line, 1-800-943-0003. For more information, please visit the spills program web page: <https://dnr.wisconsin.gov/topic/Spills>.
17. This permit does not authorize any work within the permanent right-of-way (ROW) corridor, temporary workspaces (TWSs), additional temporary workspaces (ATWSs), access roads, or staging areas after completion of the Project and restoration.
18. You shall follow field protocols for activities in proximity to known landfills, and any solid waste encountered shall be disposed of in accordance with chs. NR 500-599, Wis. Adm. Code, solid waste regulations.
19. Electrical, fueling, and waste handling facilities shall comply with applicable safety and environmental protection regulations.
20. You shall maintain the pipeline in a manner that ensures it does not cause deleterious impacts to waterways, wetlands, and/or groundwater.

Enbridge Line 5 Wisconsin Segment Relocation Project

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21. You shall use tarps or similar material underneath areas of pipeline field coating to capture and contain drips/overspray during application on the pipeline.
22. All construction equipment used for the Project shall be the right size to do the job and shall be brought to and removed from the Project site without unreasonable harm to vegetative cover and/or fish and wildlife habitat as specified in the ECP.
23. Prior to beginning construction, you shall flag or stake the boundaries of the authorized construction area limits in a manner that ensures all individuals can readily identify the boundaries of the authorized construction area limits and ensures the construction activities will only occur in areas authorized by the permitting/certifying agencies.
24. You shall ensure that all aquatic resources (e.g. wetlands, waterways) in the vicinity of the construction area that are not authorized to be impacted by the Project are clearly identified in the field as specified in the ECP.
25. You shall provide sufficient oversight of all contractors and subcontractors working on the Project on Enbridge's behalf to ensure the work is performed in full compliance with permit conditions, submitted and Department-approved plans and application materials, and Section 401 Water Quality Certification.
26. Herbicide used within or adjacent to wetlands, waterways, and sensitive resources shall follow manufacturer's directions and comply with state and federal regulations.
27. Temporary access roads necessary to inspect and repair erosion and sediment control practices pursuant to your Department Construction Site Storm Water Permit coverage shall remain in place until the area disturbed is documented as meeting final stabilization, as defined in your Department Construction Site Storm Water Permit coverage, unless otherwise approved in writing by the Department.
28. Any springs encountered in the ROW that cannot be avoided by construction must be characterized (i.e., location and flow rate) and documented prior to disturbance. These springs shall be restored to pre-existing flow regimes and conditions as required by the Department.
29. Pipeline easements shall not include language that prevents waterway and wetland restoration and management activities as required by this permit.
30. You must notify the IEM within 2 hours of identifying any Department permit compliance issues.
31. The construction of the new, drivable path for Bay City Creek (WBIC 2891100, near milepost 0.631) shall not result in the placement of gravel, fill, structures, or other material within wetlands or below the ordinary high water mark (OHWM).
32. Vegetation clearing in the areas of trenchless installation shall be limited to what is required by the Pipeline and Hazardous Materials Safety Administration (PHMSA) or as necessary for drill path inspection.
33. Within uplands, you shall use upland seed mixes that contain $\geq 99\%$ native species (use of *Lolium perenne* is acceptable). Recommended native seed grasses can be found in WisDOT Standard Specification for Highway and Structure Construction, Section 630 – Seeding, Table 630-2, Native Seed Mixtures

Enbridge Line 5 Wisconsin Segment Relocation Project

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(<https://wisconsindot.gov/rdwy/stnds/spec/ss-06-30.pdf>). If native forb species will be used, the species shall be suited appropriately for the habitat.

34. Prior to beginning construction within the FERC-regulated White River Hydroelectric Dam boundary (FERC License #2444), you shall coordinate with the FERC-regulated White River Hydroelectric Dam licensee and any other applicable regulatory authorities regarding work proposed within and adjacent to the FERC project boundary.

Environmental Construction Plan (ECP) Conditions

35. You shall implement the approved ECP, dated October 2024.

Horizontal Directional Drilling (HDD) Conditions

36. You shall only use drilling mud and drilling mud additives that have been approved for use by the Department as specified in the ECP.
37. No grading or trenching shall occur in waterways or wetlands along the bore drill path, unless required to safely install a temporary bridge; required for the sole purpose of containing an inadvertent release (IR) of drilling mud from reaching wetlands, waterways, and/or sensitive resources; or to facilitate the immediate removal of any such drilling mud. Grading or trenching within wetlands or waterways along the bore drill path shall only occur when the Department determines it is not practicable to use alternative containment methods that do not require grading and trenching. Erosion and sediment control practices shall be used to reduce impacts to adjacent portions of wetlands and waterways.
38. You shall not discharge drilling mud into wetlands, waterways, or sensitive areas.
39. You shall monitor returns continuously during drilling operations. If a rig operator identifies a sustained loss in drilling fluid pressure or a loss of circulation during HDD or direct bore operations, you shall immediately cease drilling operations, shut the drilling mud pump down, and dispatch experienced observers to monitor the area in and around the drill path for signs of an IR of drilling fluid to the ground surface, wetland, or waterbody. You shall notify the IEM that an IR may have occurred and follow the procedures in the ECP's Site-Specific IR Plans for that crossing.
40. If an IR of drilling mud to uplands occurs during the Project's HDD or direct bore construction activities, you shall immediately contain the drilling mud to prevent discharge to waterways or wetlands and report the discharge to the IEM. You shall remove the discharge as thoroughly as possible and dispose of the discharged drilling mud at an authorized location before demobilizing the drill rig.
41. If an IR of drilling mud to waterways or wetlands occurs during the Project's HDD or direct bore construction activities, you shall immediately cease the drilling operations, including pump shut down, report the discharge to the IEM and regulatory agencies, and contain the discharge. You shall remove the discharge as thoroughly as possible and dispose of the discharged drilling mud at an authorized location before demobilizing the drill rig.
42. For all of the Project's HDD or direct bore stream and wetland crossings, within 30 days of completion of each HDD crossing, you shall provide a written summary report to the Department describing the success of that

Enbridge Line 5 Wisconsin Segment Relocation Project

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HDD crossing; the degree to which there were any IRs of drilling mud; the efforts employed to report, contain, and recover any IR of drilling mud; and information related to where the drilling mud was disposed.

43. You shall not clear a width of more than 30-feet of vegetation along the permanent corridor in wetlands and waterways as part of the boring drill path, unless approved in writing by the Department. This excludes the Tyler Forks waterway crossing (WBIC 2923100) near MP 34.04, which shall be limited to 50-feet of vegetation clearing within the permanent corridor as part of the boring drill path.
44. You shall hold HDD Pre-Construction meetings prior to beginning drilling operations. The meeting shall include, at minimum, representatives from the Project owner, general contractor, drill contractor, the owner's environmental staff or consultant, and the IEM(s) assigned to the HDD crew for each drill path. Each meeting may address one or more drill paths, but for each proposed drill path addressed by the meeting the following information shall be discussed:
 - a. Location and required protections for Area of Special Natural Resource Interest (ASNRI) waters and wetlands in ASNRI;
 - b. Workspace boundaries and restricted areas;
 - c. Mapped floodways and 100-year flood boundaries;
 - d. Timing restrictions;
 - e. Seasonal considerations;
 - f. Permit compliance;
 - g. Erosion and sediment control practices;
 - h. HDD Summary, Spill Plan, and IR Plan;
 - i. Monitoring, recordkeeping and reporting;
 - j. Chain of command protocol; and
 - k. Restoration and final stabilization
45. For each drill path, the HDD operator, HDD locator, an Enbridge representative, and the IEM(s) assigned to the HDD crew shall physically walk or observe the HDD site prior to starting the drill. Any remote sensing equipment used to monitor for IRs in less accessible portions of the drill path shall be tested as part of the observation. During the observation, you shall identify potential obstacles and note the location of site-specific risk factors, environmental conditions, and water resources within the HDD site. For projects with only small drill paths, you shall discuss the IR Plan with the IEM. If erosion and sediment control practices have been installed prior to the observation, you shall confirm that practices are in operational condition. You shall identify situations where a boat and/or drone is necessary to monitor for and respond to IRs. You shall modify the IR Plan to include additional equipment and supplies needed for monitoring and response as needed based on site conditions.
46. You shall conduct visual inspections of the drilling path at least every 4 hours. During pilot hole drilling, only the portion of the drilling path between the entry and the estimated location of the drill head is required to be inspected visually. At least once per day the inspection shall be conducted by Enbridge's construction or environmental inspector. You shall maintain a record of monitoring and inspections that includes the name of the inspector, the date, the time, the stage of installation (pilot hole, reaming, or pullback), and any observations that were made along with the location of the observation. You shall maintain documentation for the duration of the Project and provide it to regulatory authorities upon request.
47. You shall document and report to the IEMs and Department Spills Hotline (1-800-943-0003) within 24-hours of any drilling fluid losses or gains that are estimated to exceed the lesser of 50% of the drill path volume or 500 gallons. If fluid loss is recovered within a few hours due to adjustments to drilling operations, only the unrecoverable amount is considered when assessing if a substantial fluid reduction has occurred.

Enbridge Line 5 Wisconsin Segment Relocation Project

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48. You shall notify the Department Spills Hotline (1-800-943-0003) and IEMs immediately if drilling fluid enters a designated ASNRI waterway.
49. You shall keep the Written Plans (HDD Summary, Spill Plan, and Inadvertent Release Plan) described in the Department's HDD Technical Standard 1072 HDD (https://dnr.wisconsin.gov/sites/default/files/topic/Stormwater/1072_HorizDirectionalDrilling_10-2022.pdf) on-site or accessible from the site during construction.
50. You shall have vacuum trucks readily available on site at all times during boring operations. If more than one HDD or direct bore is occurring simultaneously, there shall be at least one vacuum truck available per drill path.
51. You shall have spill and IR response materials as specified in the ECP at the entry and exit workspaces prior to beginning HDD or direct bore installation.
52. You shall replenish materials used for spill and IR response before proceeding with HDD installation.
53. If used, you shall provide drill fluid containment pits with sufficient capacity to avoid overflowing during rain events.
54. You shall dispose of drilling fluid and cuttings in compliance with state and local requirements in locations identified in advance and provided to the Department.
55. You shall submit drilling fluid additive information, if required under a Department WPDES permit, for HDD fluid that is disposed of in locations other than a licensed landfill. HDD fluid shall be solidified prior to disposal in a licensed landfill.

Invasive Species Conditions

56. You shall implement the Invasive and Noxious Species Management Plan included in the ECP and as prescribed in this permit.
57. All Project activities, including clearing and post-construction monitoring, shall be in compliance with the ECP's Invasive and Noxious Species Management Plan and NR 40, Wis. Adm. Code.
58. You shall ensure that all machinery and equipment used for all phases of the Project, including during post-construction monitoring events, has been de-contaminated as specified in the ECP's Invasive and Noxious Species Management Plan for invasive species prior to use and after use within wetlands and waterways. Best management practices for invasive species can be found at: <http://dnr.wi.gov/topic/Invasives/bmp.html>.
59. Prior to beginning the Project and each annual post-construction monitoring event in accordance with the ECP, all Project personnel shall receive training and informational materials on invasive species identification, prevention strategies, personnel and equipment/vehicle cleaning, and locations of known invasive species within the Project Area.

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60. Prior to vegetation clearing, you shall install flags and/or signage notifying crews of the boundaries (or the presence of, for aquatic invasive species) of known state restricted and/or prohibited terrestrial and aquatic invasive species populations, in addition to reed canary grass, that overlap with the Project area.
61. Prior to beginning the Project, you shall pre-treat (e.g., targeted spraying, manual, mechanical) known locations of terrestrial plant invasive species, including reed canary grass, located within the Project pipeyards, staging areas, and laydown yards. You shall install visible barriers and signage notifying crews to avoid the invasive species areas within the pipeyards, staging areas, laydown yards. Areas of pre-treatment shall be recorded, including the location of treatment, species treated, type of treatment, and treatment amount. You shall maintain these treatment records until the completion of restoration requirements and provide to the Department upon request.
62. Prior to beginning the Project, you shall pre-treat (e.g., targeted spraying, manual, mechanical) known locations of terrestrial plant invasive species, in addition to reed canary grass, in the construction corridor, TWSs, ATWSs, and access roads, as specified in the ECP's Invasive and Noxious Species Management Plan, considering species-specific treatment methods, timing of implementation, quality of the surrounding vegetation, proximity to water resources, and agency or land management authorizations/specifications. Areas of pre-treatment shall be recorded, including the location of treatment, species treated, type of treatment, and treatment amount. You shall maintain these treatment records until the completion of restoration and provide to the Department upon request.
63. Prior to beginning the Project, and prior to each annual post-construction monitoring event in accordance with the ECP, personnel cleaning stations shall be set up and used by all site personnel in entry/exit locations (or along the construction corridor, depending on the site and construction sequencing) for areas with known populations of reed canary grass, areas of known state restricted and/or prohibited invasive species, areas where gear is unloaded and loaded, and as directed by the IEMs. You shall provide and maintain personnel cleaning tools (e.g., stiff brushes, boot brushes), invasive identification information, and directions on how to inspect and clean personnel items at each personnel cleaning station. Cleaning stations shall utilize secondary containment structures and shall be managed in a way that prevents debris from entering wetlands, waterways, and sensitive resources. Prior to construction, and prior to each annual post-construction monitoring event in accordance with the ECP, crews shall be notified of the locations of personnel cleaning stations.
64. Prior to beginning the Project, and prior to each annual post-construction monitoring event in accordance with the ECP, vehicle and equipment cleaning stations shall be set up, used by all site personnel, and maintained at entry/exit locations (or along the construction corridor, depending on the site and construction sequencing) for Project areas located within areas of large reed canary grass populations, areas of known state restricted and/or prohibited invasive species, and as directed by the IEMs. You shall provide and maintain cleaning tools and equipment, invasive identification information, and directions on how to inspect and clean vehicles and equipment at each cleaning station. Cleaning stations shall utilize secondary containment structures and be managed in a way that prevents debris from entering wetlands, waterways, and sensitive resources. Prior to construction, and prior to each annual post-construction monitoring event in accordance with the ECP, crews shall be notified of the locations of vehicle/equipment cleaning stations.
65. You shall perform visual inspections on all tools, vehicles, and equipment entering and leaving the Project during all phases of the Project, including post-construction monitoring events, to ensure no vegetation, soil, or debris are present. If visible vegetation, soil, debris is present, you shall clean the tools, vehicles, and equipment using scraping, brushing, compressed air, water, or similar method. The vegetation, soil, and

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debris shall be properly contained upon cleaning and prevented from entering wetlands, waterways, and sensitive resources.

66. Construction mats shall be free of invasive species prior to arriving on site.
67. You shall utilize matting for construction and vehicle access in known areas of reed canary grass, based on information collected during Enbridge's invasive species surveys, wetland delineations, and on-site observations pre-construction and during construction. In areas of woody vegetation, matting shall be installed upon clearing. The matting used in areas of reed canary grass populations shall not be re-used as part of the Project, even if decontamination protocols are implemented.
68. All construction matting shall be inspected following removal and cleaned with compressed air, water, scraping, and/or brushing to remove soil and vegetation debris prior to leaving the site.
69. Equipment and machinery exposed to invasive species shall be properly decontaminated as specified in the ECP's Invasive and Noxious Species Management Plan prior to moving from one area of the Project that contains an invasive species to another area of the Project that does not contain those invasive species, including during post-construction monitoring events.
70. You shall not clean equipment, vehicles, or trailers in or near wetlands, unless within a designated cleaning station/area with secondary containment. You shall not clean equipment, vehicles, or trailers in or near waterways.
71. You shall minimize soil disturbance as specified in the ECP to reduce the potential for invasive plant introduction and colonization.
72. You shall stabilize disturbed soil in a timely manner as specified in the ECP to reduce the potential for the establishment of invasive species.
73. You shall manage stockpiles of materials to limit the spread of invasive species (e.g., covering exposed piles of soil or construction materials with plastic sheeting, planting cover crops to prevent the establishment of invasive species). You shall treat any infestations of invasive species promptly before the plants set seed.
74. You shall properly dispose of any construction debris that contains or harbors invasive species.
75. You shall avoid the off-site transport of invasives and materials that may contain invasives. If you must transport material that may contain invasive species or materials containing invasives, you shall manage the load to limit the spread of invasive species and bring it to a designated area for appropriate disposal.
76. If moving timber products to or from sites, you shall comply with Department's Forestry Division restrictions for invasive insects and diseases. Best Management Practices for Invasive Species can be found here: <https://councilonforestry.wi.gov/Pages/InvasiveSpecies/Forestry.aspx>.
77. You shall prevent and reduce the spread of Emerald Ash Borer from Project activities by complying with best management practices found here: https://dnr.wisconsin.gov/sites/default/files/topic/Invasives/bmp_EAB.pdf.

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78. To prevent the spread of non-native plant species, you shall utilize seed providers who can guarantee their seed is free of invasives.
79. You shall monitor for the introduction, spread, and increase in invasive plant species as a result of Project activities for each wetland within the Project's permanent ROW, TWSs, ATWSs, and the access roads needed to access those sites. You shall monitor annually for a minimum of six consecutive years post-construction and until performance standards are met.
80. You shall monitor for the introduction, spread, and increase in invasive plant species as a result of Project activities for each wetland within the Project's valve sites, pipeyards, and access roads that will not be used to access permanent ROW, TWSs, or ATWSs during post-construction monitoring. You shall monitor annually for a minimum of three consecutive years post-construction and until performance standards are met.
81. If invasive plant species are newly observed in wetlands as a result of the Project, you shall manage, monitor, treat, and/or control the invasive species to eradicate the species and prevent its spread.
82. If an increase of invasive plant species is observed in wetlands as a result of the Project, you shall manage, monitor, treat, and/or control the invasive species to restore the presence to pre-construction conditions or better, depending on site conditions and as approved by the Department.
83. You shall provide invasive species reports annually to the Department that include the following:
 - a. Narrative summary of post-construction invasive species monitoring from that year.
 - b. Updated table(s) that documents invasive species data from post-construction monitoring (e.g. species, abundance, cover, observations), including any treatment measures that were conducted by Enbridge. Pre-construction invasive data should also be included in the table(s).
 - c. Descriptions, locations, and photos of any newly observed invasive species that were not identified pre-construction.
 - d. Updates to the Documented Invasive Species Location Maps (see Attachment C of the Invasive and Noxious Species Management Plan) incorporating invasive species data from post-construction monitoring.
 - e. Site-specific plans proposing treatment and/or control measures that will be implemented by Enbridge in order to meet the performance standards identified in the ECP's Invasive and Noxious Species Management Plan, Wetland and Waterway Restoration and Post-Construction Monitoring Plan, and this permit. Site-specific proposals shall be reviewed and approved by the Department prior to beginning post-construction monitoring activities for the following year.

Endangered Species Conditions

84. All construction activities shall be conducted in accordance with the avoidance and minimization measures for rare species as stated in Enbridge's Incidental Take Permit/Authorization that will be required as part of the Project.
85. You shall comply with the required actions as stated in the Endangered Resources Review (ER Log #20-034).

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86. You shall update and submit the Endangered Resources Review (ER Log #20-034) for this project annually until completion of construction, restoration, and post-construction monitoring and comply with any required actions.
87. You shall implement the required actions found in the Endangered Resources Review (ER Log #20-034) for Braun's holly-fern in areas where actions were recommended.

Dewatering Conditions

88. Unless specified and approved by the Department, dewatering of excavated work areas shall be conducted in accordance with the standards of the applicable general permit under Wisconsin's Pollutant Discharge Elimination System (WPDES) and Department-approved Technical Standards.
89. Where dewatering eventually discharges to wetlands or waterways, if the discharge is cloudy or has field turbidity conditions exceeding 12 nephelometric turbidity units (NTU) or 40 mg/L, you shall immediately stop dewatering and contact the IEM to determine an adequate dewatering method. At no time shall the dewatering discharge cause a violation of Bad River Band of Lake Superior Chippewa water quality standards at the point that the discharge enters the Reservation of the Bad River Band of Lake Superior Chippewa. You shall monitor dewatering discharge at a rate that is sufficient to meet the turbidity standards at all times.
90. You shall not discharge at a rate or volume that will increase erosion in the receiving water.
91. You shall identify effective water applied additives, as described in Technical Standard 1051, prior to initiating dewatering activities in areas where the dewatering discharge may reach surface water after treatment. Jar testing of onsite water samples shall be used to identify an additive that may be used in combination with dewatering bags or sediment basins to meet the discharge standards described in Condition 89. You shall use additives for which the Department has established maximum usage rates. A list of previously reviewed additives with maximum usage rates is available at <https://apps.dnr.wi.gov/swims/Documents/DownloadDocument?id=326415944>. You shall use additives per manufacturer recommendations but shall not exceed maximum usage rates. You shall conduct additional jar testing in areas with differing soil types. You shall maintain a log of the applied additives, including product name, date and time, location, and concentration. This shall be made available to any Department personnel upon request.
92. To the greatest extent practicable, dewatering structures shall be placed in uplands. Dewatering structures shall only be placed in wetlands when the IEM has determined it is not practicable to place dewatering structures in upland areas.
93. If dewatering structures are placed in wetlands, the IEM shall first approve the dewatering location. You shall monitor all dewatering activities in wetlands throughout the duration of dewatering. Following the completion of dewatering activities, you shall ensure no deposited or accumulated sediment from dewatering remains in wetlands.
94. Dewatering structures within and adjacent to wetlands or adjacent to waterways shall utilize secondary containment measures.

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95. You shall have portable treatment systems (e.g., sand or carbon) available at the dewatering site that shall be used if the other proposed BMPs fail to adequately treat the discharge. The portable treatment systems must be sufficiently sized to treat all dewatering volume if other proposed BMPs fail.
96. Dewatering structures shall not be located on or discharge over bare or disturbed soil. Dewatering structures shall be located in either graveled areas or vegetated areas and shall discharge over densely vegetated areas.

Erosion and Sediment Control Conditions

97. You shall follow the final Erosion Control Plans from the ECP including information shown on maps and described in the narrative used to obtain Department Construction Site Storm Water Permit coverage along with any amendments approved by the Department.
98. Construction shall be accomplished in such a manner as to minimize erosion and siltation into surface waters, including wetlands, and as specified in the ECP or approved pursuant to this permit. The Project shall also be conducted in a manner that minimizes dispersal of sediment away from the Project site.
99. Sediment and erosion control best management practices (BMPs) for Wisconsin Pollutant Discharge Elimination System (WPDES) Construction Site Stormwater General Permit compliance that meet or exceed Technical Standards under subch. V of s. NR 151, Wis. Adm. Code shall be installed prior to any land disturbing activities. The technical standards are found at: http://dnr.wi.gov/topic/stormwater/standards/const_standards.html.
100. Temporary sediment and erosion control BMPs shall be installed prior to beginning in-water work, including the installation of temporary clear span bridges (TCSBs) where grading will occur prior to installation. BMPs shall be inspected and maintained throughout construction and restoration activities and shall be removed once final stabilization is achieved.
101. Erosion control measures shall be inspected, and necessary repairs or maintenance performed, prior to every forecasted rainfall event that may exceed ½ inch, after every rainfall event that exceeds ½ inch, and at least once per week until final site stabilization is achieved. You shall maintain a log of the erosion control inspections, repairs made, and rain events. The log shall be made available to any Department personnel upon request.
102. Erosion control measures as required by this permit shall be in place and effective during every phase of the Project and at the end of each working day.
103. Access roads that cross wetlands and waterways, and are in active use, shall be inspected regularly throughout the day to ensure appropriate BMPs are in place and effective in preventing sediment, debris, fluids, etc., from entering wetlands and waterways. Damaged or defective erosion and sediment control devices along access roads that cross wetlands or waterways shall be repaired or replaced immediately.
104. During active construction, sediment control devices shall be inspected daily and at regular intervals throughout the working day within and adjacent to wetlands, waterways, and sensitive resources.
105. Damaged or defective erosion and sediment control devices shall be repaired or replaced immediately.

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106. You shall have spill kits readily available at each location where fueling, equipment maintenance, or other activities are taking place that could result in a spill. Spill kits shall be in close proximity to the operations and staff shall be notified of their location. Material within the spill kits shall be replenished after use. Any spills that occur in waterways or wetlands shall be immediately reported to the Independent Environmental Monitor (IEM) and cleaned up, as specified in the ECP.
107. You shall limit the storage of vehicles and equipment within wetlands. All vehicles and equipment stored overnight in wetlands shall use secondary containment measures as specified in the ECP to prevent any inadvertent fluid or oil spills.
108. When more than ½ inch of rain is forecasted within 24 hours and unvegetated wetland spoils are located on slopes exceeding 5%, you shall place tarp or similar materials over the unvegetated wetland spoil piles where there is any potential for sediment discharge to wetlands, waterways, or sensitive resources.
109. Measures specified in the ECP shall be implemented to prevent fluid leaks (e.g., fuel, oil, hydraulic, coolant, etc.) from vehicles and equipment into wetlands or waterways. Prior to entering wetlands and waterways, vehicles and equipment shall be inspected for fluid leaks. If fluid leaks are observed, the leaks shall be corrected, and the equipment shall be cleaned prior to entering the wetland or waterway. During active construction within wetlands and waterways, vehicles and equipment shall be regularly inspected for oil/fluid leaks. If oil/fluid leaks are observed, the leaks shall be contained, properly cleaned up, and corrected prior to continuing work within the wetland or waterway.
110. Erosion control matting, blankets, and/or netting used in and adjacent to waterways and wetlands to prevent erosion during the establishment of vegetation shall be made from natural fiber only, without any synthetic mesh or netting, and contain biodegradable thread with the “leno” or “gauze” weave (contains strands that are able to move independently).
111. No portion of the waterway banks, wetland, or upland that is altered or disturbed and, as a result, unstable, shall remain unprotected for more than seven days as specified in the WPDES Construction Site Stormwater General Permit and the ECP.
112. Any area where topsoil is exposed during construction shall be stabilized as specified in the WPDES Construction Site Stormwater General Permit and the ECP to prevent soil from being eroded and washed into wetlands, waterways, and sensitive resources.
113. The removal of vegetative cover and exposure of bare ground shall be restricted to the minimum necessary for construction. Areas where soil is exposed shall be protected from erosion as soon as possible after removal of the original ground cover, as specified in the WPDES Construction Site Stormwater General Permit and the ECP.
114. Where the remaining work within a section of the Project is limited to maintaining access needed to construct adjacent segments or inspect and maintain restoration practices, the portion of the work area not needed for access shall be stabilized as soon as possible, but not to exceed seven days, as specified in the WPDES Construction Site Stormwater General Permit and the ECP.
115. Land applied additives such as tackifiers, shall not be applied to wetlands, waterways, or waterway banks.
116. If hydroseeding/hydromulching is utilized on the banks of waterways, it shall not be applied during rain events and shall be applied per manufactures guidelines on cure time before rain events.

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117. Fertilizer shall not be applied to wetlands or adjacent to waterways unless approved by the Department.
118. All stockpiled spoils, supplies, or materials shall be isolated from wetlands and waterways as specified in the ECP to prevent impacts to those resources.
119. After any part of the site reaches final stabilization, or at the direction of the Department, all temporary erosion control measures in that part of the site shall be removed and disposed of properly. "Final stabilization" means that all land disturbing construction activities at the construction site have been completed and that a uniform perennial vegetative cover has been established with a density of at least 70% of the cover for the unpaved areas and areas not covered by permanent structures or that employ equivalent permanent stabilization measures.
120. You shall remove all construction debris and waste immediately after construction is completed or as directed by the Department.
121. Permanent berms or slope breakers shall not be installed in wetlands.
122. If permanent berms or slope breakers will be installed adjacent to wetlands, you shall place the permanent berms upslope of the wetlands. The length of permanent berms or slope breakers perpendicular to the slope within the corridor shall be minimized to the extent practicable with sufficient energy dissipation provided at discharge points to avoid creating erosion in or draining to wetlands.

Blasting Conditions

123. You shall limit the extent of blasting in wetlands, waterways, and sensitive resources to the greatest extent practicable.
124. You shall follow the blasting plan that was submitted as part of your ECP.
125. You shall restore areas of blasting in wetlands and waterways to preconstruction hydrology and elevations immediately after installation of the pipe.
126. You shall conduct wetland hydrological monitoring as described in the ECP's Wetland and Waterbody Restoration and Post-Construction Monitoring Plan and as proposed by Enbridge to the U.S. Army Corps of Engineers (USACE). Monitoring shall be conducted until USACE has determined performance standards are met.
127. You shall install trench breakers capable of restricting the horizontal movement of water as shown on the erosion control plan used to obtain Department Construction Site Storm Water Permit coverage to minimize the potential for subsurface drainage along the backfilled trench in bedrock areas. You shall install trench breakers to minimize the potential for subsurface drainage along the backfilled trench.

Waterway Conditions- General

128. You shall not straighten or change the course of any navigable waterway.

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129. To minimize adverse impacts on fish movement, fish spawning, and egg incubation periods, the placement and removal of TCSBs and any in-water work shall not occur during the time periods listed in Permit Table 1 (attached), unless waived or modified in writing by the Department's regional Fisheries Biologist. The timing restrictions only apply to waterways that have standing or flowing water at the time that the regulated activity occurs.
130. Prior to commencing in-water activities, you shall monitor for changes to water levels and/or flows to avoid working during high flows. You shall not begin in-water work within 24 hours of forecasted rain events exceeding ½ inch and all in-water work and restoration shall be completed prior to any such event.
131. You shall not install temporary bridges or conduct in-water work during periods of high water levels or flooding if the water level or flooding could overwhelm the proposed crossing or construction techniques.
132. For each waterway crossing, you shall have appropriate equipment available to handle anticipated flow conditions.
133. You shall allow safe portage around restricted areas of the Project area within navigable waters to anyone legally navigating the waterway. You shall install navigational warning signs for the waterways identified in the ECP.
134. Work below the OHWM shall be completed as quickly as possible as specified in the ECP to minimize waterway disruption.
135. Activity below the OHWM shall be minimized as specified in the ECP to complete the work.
136. You shall not deposit or store any of the graded or excavated materials below the OHWM of any waterway.
137. Disturbance to the waterway banks from use of equipment and/or vehicles shall be minimized as specified in the ECP. All waterway banks shall be protected from the bank collapsing and from erosion due to equipment operation.
138. Removal of trees, shrubs, and bank vegetation shall be minimized as specified in the ECP. If woody vegetation is cleared outside of the trench line, the stumps and root structures shall remain intact.
139. Large woody debris or brush piles resulting from clearing activities shall not be deposited in waterways or floodways.
140. In-water work shall be conducted in a manner that minimizes the re-suspension of sediment as specified in the ECP.
141. Upon completion of pipeline installation, all streambed elevations shall be restored to pre-existing conditions as specified in the ECP. Preconstruction waterway bed elevations shall be determined, and data shall be utilized to ensure post-construction waterway elevations are properly restored.
142. Waterway banks shall be restored to pre-existing conditions as specified in the ECP, if pre-existing bank conditions are determined to be unstable, the banks shall be restored to stable slopes.
143. Pools, riffles, and runs shall be restored to pre-existing locations and conditions as specified in the ECP.

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144. No more than 30 days after the Project is completed, you shall submit to the Department clear and labeled photographs of all restored waterway crossings. Photos shall be taken from the same general location and direction as pre-construction photos submitted with your application.

145. You shall perform water quality monitoring in accordance with the ECP's Water Quality Monitoring Plan.

146. You shall perform macroinvertebrate sampling in accordance with the ECP's Water Quality Monitoring Plan unless modified in coordination with U.S. Environmental Protection Agency.

Waterway Conditions – Beaver Dams

147. If needed to facilitate safe construction, you shall breach beaver dams in a manner that results in a slow draining of impounded water to minimize silt flushing and channel erosion downstream. Dams shall not be breached using explosives, unless approved in writing by the Department.

148. Prior to dam removal, you shall have a contingency plan in place to manage any uncontrollable flow from beaver dam removal.

149. You shall not dredge, drive on the bed, or place structures or fill below the OHWM or within wetlands as part of beaver dam removal activities, unless approved in writing by the Department.

Waterway Conditions – Driving on the Bed

150. Except for the existing ford crossing at Tyler Forks near access road AR-085, you shall not drive any vehicles on the bed of any navigable waterway to cross the waterway unless approved in writing by the Department.

151. Except during dry stream bed conditions within the boundaries of the trenchline, equipment and vehicles shall not drive or operate on the bed of the waterway during pipeline installation, including bank restoration and stabilization, unless approved in writing by the Department.

Waterway Conditions – Temporary Clear Span Bridges (TCSB)

152. This permit does not authorize the placement of permanent bridges across waterways.

153. Waterways within the Project area that do not have an existing waterway crossing (existing ford, existing culvert, TCSB) shall have signs installed on both banks alerting crews that the waterway cannot be traversed. These signs shall be installed prior to clearing activities and shall remain in place throughout all phases of construction, including restoration.

154. All TCSBs across navigable waterways shall comply with requirements of s. NR 320.04, Wis. Adm. Code.

155. TCSBs shall be removed within 30 days after the TCSB is no longer needed to complete construction or site stabilization monitoring. If TCSB removal conflicts with a required fish timing restriction, the TCSB shall be removed within 30 days after fish timing restrictions cease. If TCSBs are requested to remain post-construction to conduct inspections or final site stabilization, pursuant to your Department Construction Site Storm Water Permit, you shall provide a list of proposed TCSB locations for Department approval. The TCSBs

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shall not remain in place past the expiration date of this permit, unless approved in writing by the Department.

156. Installation and removal of the TCSB shall be conducted in a manner that minimizes the removal of trees, shrubs, and other shoreline vegetation, as specified in the ECP.
157. Installation, removal, and use of the TCSB shall be conducted in a manner that prevents sediment and debris from entering the waterway, as specified in the ECP.
158. Appropriate barriers, as specified in the ECP, such as geotextile fabric and silt sock, shall be installed and anchored to the TCSB to prevent sediment and materials from entering the waterway during the installation, use, and removal of the TCSB.
159. Bridge approaches shall not consist of earthen material or debris. No bridge approach fill shall be placed below the OHWM of any waterway.
160. Bridge supports and headers shall be located at least three feet landward from the top of the bank.
161. The TCSB shall completely span the waterway from top of channel to top of channel with no support pilings in the waterway. This permit does not authorize any in-stream supports for TCSBs.
162. Equipment used to install and remove TCSBs shall not enter or operate on the bed of the waterway. The equipment to install and remove TCSBs shall not disturb the bed of the waterway.
163. Grading of banks to install the TCSBs shall be minimized as specified in the ECP.
164. This permit does not authorize temporary placement of bridges across waterways that are more than 35 feet wide measured from OHWM to OHWM, except for two Tyler Forks River crossings at milepost (MP) 33.43 and MP 34.04.
165. TCSBs shall be securely anchored to prevent them from being transported downstream during high flow conditions.
166. You shall inspect TCSB openings for debris and obstructions weekly and within three days following any rainfall exceeding ½ inch. You shall remove any restriction of flow, and any debris shall be deposited in an upland site and out of any floodplain, wetland, or waterway.
167. TCSBs shall be monitored and maintained regularly and shall be cleaned of mud and/or debris immediately, if observed. The removal of mud and/or debris from the TCSB shall not result in a discharge into a waterway.
168. All vehicles and equipment traversing the TCSB shall be checked prior to crossing the TCSB for fluid (e.g. fuel, oil, hydraulic, coolant) leaks. If fluid leaks are observed, the leaks shall be corrected, and the equipment shall be cleaned prior to crossing the TCSB.
169. Upon removal of the TCSBs, waterway banks shall be restored to pre-existing conditions as specified in the ECP. If pre-existing bank conditions are not stable, you shall restore waterway banks to stable slopes.

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Waterway Conditions – Temporary Structures (Work Zone Isolation Systems and Flow Bypass Systems)

170. Prior to conducting any open-cut trenching of waterways, you shall follow the high flow contingency as specified in the ECP in the event the flow bypass system would be overwhelmed by incoming flows. You shall implement the high flow contingency as specified in the event the flow bypass system is overwhelmed by incoming flows.
171. Pump intakes and discharges shall be placed to prevent the disturbance, removal, and scour of bed material.
172. Pump discharges shall utilize energy dissipation devices to prevent disturbance and scour of bed material.
173. Pump intakes and discharges shall be used in a manner that prevents impacts to aquatic organisms, wildlife, and their habitat.
174. You shall remove all work zone isolation systems and flow bypass systems gradually, in such a way that minimizes the downstream sediment impacts, as specified in the ECP.
175. You shall inspect and maintain the work zone isolation systems and flow bypass systems regularly each day they are in place.
176. Upon isolation of the waterway and/or prior to dredging, you shall visually survey the workspace for aquatic organisms (e.g., fish, mussels, turtles, crayfish). If aquatic organisms are observed, you shall immediately and safely relocate them.
177. There shall be no long-term impacts to the bed of the waterways from the placement, operation, and/or removal of the work zone isolation system and flow bypass system structures.
178. All temporary work zone isolation system and flow bypass system structures placed on the bed of the waterway shall be clean and free of debris.
179. All temporary structures placed below the OHWM shall be removed immediately upon completion of the pipeline installation.
180. No concrete, grout, or other sealants shall be used to seal temporary cofferdams or similar structures.
181. Sheet pilings shall not be installed to a depth that would intersect known artesian aquifers based on available geotechnical information and well drilling logs. If new, discernable ground water flow is observed during or after installation of sheet piling at the existing ground level outside of the trench, it shall be reported immediately to the IEM and reported within 24 hours to the Department. You shall notify IEMs at least 24 hours in advance of sheet pile driving between MP 10 to MP 18 and MP 37 to MP 40. In these areas, the contractor shall have additional erosion and sediment control materials as specified in the ECP at the site sufficient to limit impacts from any unanticipated ground water flows.

Waterway Conditions – Permanent Bank Stabilization Structures

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182. Bank stabilization structures shall be installed following the design plans in the Wetland and Waterway Restoration and Post-Construction Monitoring Plan in the ECP, as conditioned in this permit, and as approved by the Department.
183. Installation of permanent bank stabilization structures shall be completed immediately after pipe installation to minimize waterway disruption. Installation shall be completed in a way that minimizes impacts to the resource.
184. The bank stabilization installation shall follow the natural contour of the shoreline. No waterward extension of the shoreline is permitted other than what is reasonably necessary to conduct the Project and protect the existing bank.
185. The placement of soil below the OHWM shall be limited to the material required to establish biological materials.
186. All bank stabilization materials shall be clean and free of debris prior to installation.
187. The amount of dredging to install structures shall be limited to the maximum extent practicable, and the dredging shall be completed immediately after pipe installation to minimize waterway disruption.
188. For riprap installation, you shall use clean field or quarry riprap rock/stone. Rock fill shall not include concrete or reused materials. Riprap materials shall be appropriately sized.
189. All riprap placed above the OHWM shall be top dressed with a minimum of six inches of topsoil.
190. For biostabilization installation, native vegetation shall be seeded/planted above the OHWM. Vegetation, such as seeding, plant plugs, and dormant plantings shall be plant species native to the area of Wisconsin where the Project is located.
191. Except for placement of biostabilization materials, no soil or similar fill material may be placed in a wetland or below the OHWM.
192. For biostabilization and integrated stabilization installation, bank stabilization structures (such as tree limbs, branches, etc.) shall not be sourced from waterways.

Waterway Conditions – Dredging

193. Unless the waterway is completely dry (no standing water, no flowing water) for the entire duration of the activity below the OHWM, including accounting for rain events during construction, trenching in the waterway shall be completed using a work zone isolation system or flow bypass system, such as a dam and pump or dam and flume technique, to isolate the in-water work zone from the waterway.
194. If a waterway is completely dry (no standing water, no flowing water) at the time of construction for work below the OHWM, you shall have work zone isolation or flow bypass system materials (such as dam and pump or dam and flume materials) on site and ready to install if conditions change during construction and standing or flowing water becomes present in the waterway.
195. Bypass flows shall be maintained in the waterway during all phases of construction.

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196. You shall minimize the width of the trench through waterways as specified in the ECP. Where support is needed in the trench due to depth, soil type, or soil saturation, use of trench boxes shall be considered first. Sheet piling shall only be used where necessary for personnel safety.
197. The amount of dredging shall be limited as specified in the ECP, and the dredging shall be completed in the timeframe specified in the ECP.
198. Bed materials shall be removed by equipment that is designed to minimize the amount of sediment that can escape into the water. Equipment shall be properly sized so that excavation complies with the ECP and allows the work to be done from the banks rather than in the waterway.
199. You shall segregate the upper foot of streambed material during excavation to properly restore the bed substrate and profile.
200. Unless the pre-construction substrate is silt, backfill material of the trench shall consist of the originally removed bed material and the substrate features shall be returned to pre-construction conditions. If the existing substrate is silt, you shall backfill with clean, washed gravel, crushed stone, or clean river stone to replace the excavated material. If the stream bed in the crossing location has a unique substrate feature (i.e. cobbles, boulders, riffles), it shall be returned to preconstruction conditions.
201. Any remaining native fill that will not be used as backfill (surplus excavated material that has been displaced by the new pipeline, pipeline bedding, and pipeline installation materials) shall not be re-dispersed in the waterway or in wetlands. Any remaining native fill shall be removed from the waterway and disposed in an upland area or at an authorized facility.
202. The trench shall be backfilled no later than 48 hours after completion of pipeline installation, unless approved in writing by the Department.
203. You shall visit each waterway crossing where pipeline installation occurred via open-cut trenching (dredging) for a minimum of six consecutive years, and until performance standards are met, to confirm the successful stabilization of streambanks during high and low flow regimes and to document the physical waterbody parameters. This includes confirming general bed and bank elevations match adjacent, undisturbed areas and bed composition is restored.
204. For all dredged waterways, as part of your annual wetland and waterway post-construction monitoring report, you shall provide the Department with documentation demonstrating streambed and banks have been restored to pre-construction conditions and elevations and slopes have not materially changed due to the construction of this Project.

Wetland Conditions - General

205. No wetlands may be disturbed beyond the area specifically described in Permit Table 1 (attached).
206. You shall implement the Compensatory Mitigation Strategy in the ECP (October 2024). Prior to beginning land disturbing activities within the wetland areas, you shall purchase mitigation credits for the Project from approved wetland mitigation banks in the Lake Superior Bank Service Area. If in-kind credits are available, they must be purchased first for a total of 35.14 credits. After all available in-kind credits are purchased, you

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shall purchase any additional mitigation credits through out-of-kind mitigation in the Lake Superior Bank Service Area. Required mitigation ratios are detailed in the ECP and Findings of Fact. In the event that no mitigation bank credits are available in the Lake Superior Bank Service Area, you shall purchase mitigation credits from the Wisconsin Wetland Conservation Trust in-lieu fee program.

207. A copy of the affidavit of credit purchase from the mitigation bank(s) (or from the Wisconsin Wetland Conservation Trust in-lieu fee program), for the full amount of credits specified in the Compensatory Mitigation Strategy, shall be provided to the Department. Land disturbing activities shall not occur within the wetland areas until the full amount of wetland mitigation credits have been purchased and the affidavit of credit purchase is submitted to the Department.
208. The permanently cleared and maintained pipeline corridor in wetlands shall be limited to 50 feet wide in areas of trenching installation and 30 feet wide in areas of trenchless installation.
209. TWSs in wetlands shall be limited to 95-feet wide. TWSs and ATWSs shall be limited to those approved in this permit.
210. All wetland boundaries shall be marked with signs in the field prior to clearing activities and shall remain in place throughout all phases of construction, including restoration. Signs shall be installed so they are not obscured by vegetation growth and/or snow cover.
211. IEMs shall confirm that all wetland boundaries have been accurately marked in accordance with the Project's wetland delineation data prior to clearing and/or any construction activities.
212. You shall notify the Department of any additional wetlands identified that were not part of the wetland delineation reports.
213. You shall not place soil or gravel, including on top of construction matting, for the construction of temporary access roads or staging areas in wetlands, unless approved in writing by the Department.
214. You shall not place gravel or stone in wetlands as part of tracking pads, unless approved in writing by the Department. If stone tracking pads cannot be located in uplands, other trackout control practices may be used as described in Technical Standard 1057. Manufactured trackout control practices must be able to prevent sediment from entering the wetland below.
215. This permit does not authorize the construction of permanent access roads within wetlands, except for permanent access roads to mainline valve sites 1, 4, and 5.
216. Large woody debris and brush piles resulting from clearing activities shall not be deposited in wetlands.
217. To the extent practicable, chipped, woody debris shall be removed from wetlands. If chipped, woody debris cannot be removed from wetlands, you shall thinly scatter wood chips evenly at a depth no greater than 2 inches. Chipped, woody debris remaining in wetlands shall not impede revegetation, alter surface elevations, and/or obstruct the natural flow of water.
218. Access through wetlands, including equipment travel, shall be minimized as specified in the ECP.

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219. All equipment used in wetlands shall be designed, properly sized, and operated to avoid disturbance to wetlands, including soil rutting and compaction.
220. You shall minimize the size of the construction workspaces in wetlands as specified in the ECP.
221. You shall minimize the width of the trench through wetlands as specified in the ECP. Where support is needed in the trench due to depth, soil type, or soil saturation, use of trench boxes shall be considered first. Sheet piling shall only be used where necessary for personnel safety.
222. You shall not remove roots or stumps in wetlands within the corridor if the pipeline will be installed via trenchless methods, unless required for safety reasons.
223. Grading in wetlands, including topsoil stripping, shall be limited to the trench line.
224. Stump and root removal of woody vegetation in wetlands shall be limited to the trench line, unless required for safety reasons.
225. The Project shall not result in adverse changes to wetland hydrology, as specified in the ECP.
226. When constructing in wetland areas without standing water, you shall segregate the topsoil from the subsoil. If topsoil layers are observed to be shallower or deeper within different locations of the Project, you shall adjust accordingly to properly segregate topsoil from subsoil.
227. In wetlands with standing water, you shall segregate as much of the organic layer as possible based on site and saturation conditions. Where there may be standing water over more cohesive layers, you shall take the first excavated bucket of material and separate it from subsoil material based on the limitations of the soil characteristics and the limits of the workspace.
228. You shall segregate confining layers from topsoil and subsoil and return confining layers to their pre-construction conditions. This does not apply to areas of bedrock that would be blasted and removed from the trench.
229. You shall segregate the uppermost layers of peaty soil, sphagnum mosses, and other native bryophytes from the remaining topsoil and return the uppermost layers as they were removed. Excavated peaty soil, sphagnum mosses, and/or other native bryophyte spoils shall be maintained to prevent desiccation and degradation of the matrix. Excavated peaty soil, sphagnum mosses, and other native bryophytes shall be returned to their original layer as quickly as possible to minimize disruption.
230. Topsoil and confining layers shall be replaced to its original stratum. Subsoil shall be removed or replaced to its original stratum.
231. The remaining native fill that will not be used as backfill or for crowning above the pipeline (surplus excavated material that has been displaced by new pipeline, pipeline bedding, pipeline installation materials) shall not be re-dispersed in wetlands. Any of the remaining native fill shall be disposed of in an upland area or at an authorized facility.
232. Trenches shall be backfilled (including topsoil placement) within 72 hours of pipeline installation, unless approved in writing by the Department or IEM.

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233. Seeding and site stabilization activities shall occur within 20 days of backfilling the trench line, as specified in the ECP.

234. You shall submit the final acreage of actual wetland impacts associated with this Project within 30 days of Project completion. This information shall be submitted in a new column added to Permit Table 1.

Wetland Conditions – Construction Matting

235. Construction mats shall be unused or decontaminated prior to placement and use. The matting used over reed canary grass populations shall not be re-used as part of the Project, even if decontamination protocols are implemented.

236. You shall operate vehicles and equipment in wetland on construction matting or during stable ground conditions where operation will not result in soil rutting, mixing, or compaction.

237. Construction mats placed in wetlands shall be removed as soon as possible but shall not be removed until final cleanup of a pipeline installation segment is complete and heavy equipment will no longer be working within that particular segment. Construction matting shall not be left in wetlands during the growing season for longer than necessary.

238. Excavated wetland soils shall be stockpiled on construction matting, a thin layer (no more than 2 inches) of weed-free straw or a similar biodegradable material, an adequate layer of snow, or an adequate layer of ice to serve as a physical and visual barrier between spoils and the undisturbed wetland underneath.

Wetland Conditions – Restoration and Post-Construction Monitoring

239. All construction waste materials shall be removed from wetlands immediately at the completion of construction.

240. Except where permanent wetland fill material is authorized, all wetlands shall be restored to pre-existing elevations and hydrology as specified in the ECP. Preconstruction wetland elevation data shall be utilized to ensure post-construction wetland elevations are properly restored.

241. Where permanent wetland fill material is authorized, the Project shall be constructed in a manner that will maintain wetland hydrology in the remaining portions of the wetland complexes.

242. You shall implement the ECP's Wetland and Waterbody Restoration and Post-Construction Monitoring Plan. This plan incorporates native seed mix as well as bare root stock to reestablish wetland vegetation.

243. You shall conduct post-construction monitoring for each wetland within the Project's permanent ROW, TWSs, ATWSs, and the access roads needed to access those sites for a minimum of six consecutive years following construction and until performance standards are met as specified in the ECP, unless otherwise determined by the Department.

244. You shall conduct post-construction monitoring for each wetland within the Project's valve sites, pipeyards, and access roads that will not be used to access permanent ROW, TWS, or ATWS during post-construction

monitoring for a minimum of three consecutive years post-construction and until performance standards are met as specified in the ECP, unless otherwise determined by the Department.

245. You shall conduct post-construction monitoring for each PFO and PSS wetland within the Project area that was cleared outside of the permanent corridor as part of the Project in Years 9, 12, and 15 post-construction to evaluate the success of the reestablishment of woody species, as specified in the ECP's Wetland and Waterbody Restoration and Post-Construction Monitoring Plan.
246. In addition to the performance standards specified in the ECP, you shall achieve performance standards for PFO wetlands in the TWS and ATWS that include:
- a. >70% survival of planted woody stock OR >300 live woody species per acre for ≥ 2 consecutive growing seasons;
 - b. By year 9, >250 live woody species per acre ≥ 4.0 feet in height for ≥ 3 consecutive growing seasons after step a is met;
 - c. By year 15, PFO wetlands shall have at least 30% non-invasive forestry canopy cover (crown cover)

If the TWSs and ATWSs of PFO wetlands are not meeting the performance standard criteria for step b or step c, you shall provide a management plan to the Department addressing how performance standards will be met, which may include additional plantings. The plan shall be provided to the Department for review and approval prior to implementing the plan.

247. For wetlands that had standing water at the time of initial restoration, if standing water is not observed during site stabilization monitoring, you shall seed that portion of wetland with wetland seed mix. You shall utilize the wetland seed mix described in the ECP's Wetland and Waterbody Restoration and Post-Construction Monitoring Plan.
248. A qualified wetland professional shall confirm post-construction monitoring plot locations are representative of the wetland during the initial post-construction monitoring event.
249. During post-construction monitoring and site stabilization within wetlands and adjacent to waterways, you shall implement corrective actions as soon as practicable to support the restoration of wetlands. This may include minor grading, supplemental seeding or plantings, treatment/control of invasive species, removal of debris, etc., as specified in the ECP.
250. You shall use locally sourced seed mixes. If locally sourced seed mixes are not used, you shall utilize seed sources from Wisconsin, Minnesota, and/or Michigan that source the genotypes found within the Project area or the local nurseries near the Project area, unless otherwise approved by the Department.

FINDINGS OF FACT

1. On February 11, 2020, Enbridge Energy, Limited Partnership (Enbridge Energy or Enbridge) applied to the Department of Natural Resources (Department) for permits to place temporary structures in navigable waterways, temporarily bridge navigable waterways, dredge navigable waterways, drive on the bed of navigable waterways, and to discharge fill in wetlands listed in Permit Table 1 for the purpose of relocating

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41.1 miles of 30-inch diameter crude petroleum and natural gas liquids (NGLs) pipeline (known as “Line 5”), collectively referred to as the “Line 5 Wisconsin Segment Relocation Project,” or the “Project.”

2. The Project is located in Township 45 North, Range 1 West, Sections 5, 6, 8, 18; Township 45 North, Range 2 West, Sections 1, 2, 13, 14, 22, 23, 27, 28, 29, 30, 31, 32, and 33; Township 45 North, Range 3 West, Sections 6, 7, 8, 9, 14, 15, 16, 22, 23, 24, 25, and 36; Township 45 North, Range 4 West, Sections 1, 2; Township 46 North, Range 1 West, Sections 3, 4, 10, 15, 16, 17, 20, 21, 22, 27, 28, 29, 32, and 33; Township 46 North, Range 4 West, Sections 5, 6, 7, 8, 17, 18, 20, 27, 28, 29, 34, and 35; Township 47 North, Range 1 West, Sections 33, 34, and 35; Township 47 North, Range 4 West, Sections 3, 8, 17, 20, 29, and 32; Township 47 North, Range 5 West, Sections 8 and 10; Township 48 North, Range 4 West, Section 34.
3. The Project will cross the City of Ashland, City of Mellen, Town of Ashland, Town of Gingles, Town of Marengo, Town of Morse, and Town of White River in Ashland County; Town of Anderson, Town of Gurney, and Town of Saxon in Iron County; and Town of Eileen in Bayfield County.
4. Enbridge owns and operates the 645-mile-long Line 5 pipeline, which became operational in 1953. Line 5 traverses northern Wisconsin and the Upper and Lower Peninsulas of Michigan before reaching its terminus at Sarnia, Ontario in Canada. Line 5 currently crosses approximately 12 miles of Bad River Band of Lake Superior Chippewa Reservation land.
5. The Project involves the relocation of approximately 20 miles of existing Line 5 pipeline with 41.1 miles of new 30-inch diameter pipeline and 10 new mainline block valves outside of the Bad River Band of Lake Superior Chippewa Reservation. Enbridge proposes to continue transporting crude oil and NGLs through its Line 5 pipeline, while decommissioning the portion of pipeline that crosses the Bad River Band of Lake Superior Chippewa Reservation.
6. The Department considers the basic purpose of the Project to be continuing the transport of crude oil and natural gas liquids (NGLs) through Line 5 to Enbridge’s existing delivery locations in approximately the same capacity as the existing line.
7. The proposed location of the Project is located within the Fish Creek-Frontal Chequamegon Bay (HUC 0401030111), White River (HUC 0401030206), Marengo River (HUC 0401030204), Headwaters Bad River (HUC 0401030203), Tyler Forks (HUC 0401030202), Potato River (HUC 0401030205), and Bad River-Frontal Lake Superior (HUC 0401030207) watersheds.
8. The Department had numerous pre-application and post-application meetings and discussions with Enbridge to address waterway, wetland, and listed species regulations and standards.
9. The Department provided Enbridge with information relative to Department authorities, the need to complete an Environmental Impact Statement, the need to avoid and minimize wetland impacts, appropriately limit waterway impacts, comply with protections for endangered and threatened species and habitats, and other areas of concern as part of a pre-application meeting on December 17, 2019.
10. The Department received an Environmental Impact Report (EIR) from Enbridge with their permit application materials in February 2020 providing a description of the proposed Project and Enbridge’s analysis of the potential environmental effects of the proposals. In August 2020, Enbridge submitted a Revised Environmental Impact Report, as part of its application for Department waterway and wetland permits for the Project.

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11. Section NR 150.20, Wis. Admin. Code, establishes procedures to fulfill the requirements of s. 1.11(2)(c), Wis. Stats., setting minimum requirements for Wisconsin Environmental Policy Act (WEPA) compliance. The Department followed the EIS process as outlined under s. NR 150.30, Wis. Admin. Code, pursuant to s. NR 150.20 (4)(b), Wis. Admin. Code.
12. The Department issued a notice of pending application/public hearing (NOPA), dated June 8, 2020. The NOPA indicated the Project's application for waterway and wetland permits was considered complete. The NOPA also indicated the Department scheduled a virtual, public informational hearing and Environmental Impact Statement (EIS) scoping meeting on July 1, 2020.
13. By requirement of the Department, Enbridge published the notice as a Class 1 Notice in the Ashland Daily Press, Glidden Enterprise, Mellen Weekly Record, Iron County Miner. Enbridge was also required to mail the notice to all affected and abutting landowners and interested parties.
14. On July 1, 2020, the Department held a virtual public informational hearing and EIS scoping meeting. During the public hearing, the Department received comments on the Project waterway and wetland permit application and comments on the draft EIS for the Project. In addition to oral testimony received at the meeting, the Department received over 2,100 written comments between June 8 and July 11, 2020. Many of the comments received during the public hearing and comment period concerned the completeness of Enbridge's pending waterway and wetland permit application and required language in the public notice regarding the tentative determination to approve with modifications.
15. The scope of the EIS analysis was determined based on comments received during Public Scoping and in consultation with tribal governments and federal agencies.
16. Between August 2020 and January 2021, the Department held a series of technical meetings with staff from the Bad River Band of Lake Superior Chippewa, Red Cliff Band of Lake Superior Chippewa, Lac du Flambeau Band of Lake Superior Chippewa, and the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) to share information and address tribal comments on the Draft EIS.
17. Between August 2020 and October 2020, the Department and Bad River Band of Lake Superior Chippewa held three government to government consultation meetings. In September 2020, the Department and Red Cliff Band of Lake Superior Chippewa held one government to government consultation meeting.
18. The Department made Information Requests to Enbridge to provide additional information on November 3, 2020, February 1, 2021, September 1, 2021, and October 29, 2021.
19. On Dec. 16, 2021, the Department posted the Draft EIS on the Department's internet site and initiated a public comment period.
20. On Feb. 2, 2022, the DNR held a virtual Public Hearing on the Draft EIS. Over 160 individuals testified during the hearing. Public statements made during the hearing were recorded. In addition, written comments were received at the hearing, via US Mail, and via email. The public comment period concluded on April 15, 2022. The Department received more than 32,000 written comments on the Draft EIS during the public comment period. Comments received were both in support and opposition to the proposed project. Comments concerned the completeness and accuracy of the Draft EIS, impacts to the Bad River watershed, long-term

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impacts to wetlands, the potential impacts from a petroleum release or spill, impacts to wildlife, and impacts to groundwater, among other topics. As a component of this permit decision, the Department has considered public comments relevant to the Department's waterway and wetland jurisdiction and standards.

21. The Department reviewed information from Enbridge's waterway and wetland permit application, subsequent data request responses, scoping comments, comments on the Draft EIS, comments from technical meetings with government and tribal representatives, maps, GIS data, aerial imagery, field visits, and information received from Department program staff to develop a Final EIS. The Final EIS considered a broad range of ecological and socioeconomic impacts that could occur as a result of the construction and operation of the Project, including impacts to natural resource areas, cultural resources, archaeological resources, aesthetics, recreation, endangered resources, as well as impacts from invasive species, oil spills, and cumulative impacts. The Final EIS was issued September 6, 2024, and is available, along with the Department's WEPA Compliance Determination, on the Department's website at: <https://dnr.wisconsin.gov/topic/EIA/Enbridge.html>.
22. Enbridge filed an application with the Department for a Wisconsin Pollution Discharge Elimination System (WPDES) Permit for Construction Site Storm Water. The WPDES Construction Site Storm Water permitting decision can be found under Docket # SW-GP-NO-2020-2-X09-23T11-31-30.
23. The U.S. Department of Transportation's Petroleum Hazardous Material Safety Administration (PHMSA) regulates pipeline operations and safety. No state or federal agency has general approval authority over the need for, or the siting of, liquid petroleum pipelines, with the exception of pipelines crossing state or federal lands. The Department does not have the authority to regulate the amount of material flowing in a pipeline. The Department does not have general regulatory authority over the operation of liquid petroleum pipelines.
24. Private pipeline companies determine possible routes for new or relocated pipelines; acquire the rights-of-way (ROWs) to build, operate and maintain the lines; engineer the actual system designs; and construct the lines.
25. Enbridge identified and evaluated several alternatives as part of its proposed pipeline relocation project. Enbridge evaluated and presented its proposed Project and four route alternatives (RA-01, RA-02, RA-03, No Action) to the Department. Enbridge's evaluations were based on its stated approach of minimizing the length of the pipeline to the extent practicable, while also minimizing the environmental impacts to natural and cultural resources. The Department analyzed the effects of four alternative Line 5 relocation routes considered by Enbridge and No-Build alternatives:
 - RA-01
 - (a) RA-01 crosses the same watersheds as proposed Project but does not extend into the Fish Creek watershed. RA-01 is approximately 9.7 miles shorter than the proposed Project. RA-01 crosses approximately 0.5 miles of state-owned Copper Falls State Park (CFSP), including a portion listed on the National Register of Historic Places and the Wisconsin Register of Historic Places and a portion designated by the Department as Area of Special Natural Resource Interest (ASNRI) and State Natural Area (SNA). RA-01 has the potential to impact approximately 141.5 fewer acres for construction, requiring approximately 74.8 fewer acres of forest clearing, would cross approximately 13 fewer waterways, and would cross approximately 12.6 more acres of wetland than the proposed Project.

- (b)** RA-01 meets the project objectives and need and is a technically and economically feasible alternative. Even though less expensive, route RA-01 is more environmentally damaging than the proposed route. Additionally, RA-01 introduces additional environmental impacts to state owned lands that the proposed route avoids and is in closer proximity to the Bad River Band of Lake Superior Chippewa Reservation.
- (c)** During its review of Enbridge's CWA permit application, the USACE requested Enbridge evaluate minor variants of RA-01 route (RA-01A and RA-01B) that would reduce the effects on public lands and potentially reduce the overall project length and associated environmental disturbance.
- RA-01A would be approximately 4.3 miles shorter than the proposed Project. RA-01A crosses approximately 13 fewer waterways and crosses approximately 15.3 acres more of wetland than the proposed Project.
 - RA-01B would be approximately 3.1 miles shorter than the proposed Project. RA-01B crosses approximately 8 fewer waterways and crosses approximately 27.9 acres more of wetland than the proposed Project.

The USACE and Department evaluated the additional information and concluded that the variants would be closer to the Bad River Band of Lake Superior Chippewa Reservation, result in greater impacts to wetlands, increase forest clearing, and did not convey an environmental advantage over the proposed Project.

○ RA-02

- (a)** RA-02 crosses the same watersheds as the selected route. RA-02 is approximately 16.9 miles longer than the proposed Project but does not cross DNR-owned Copper Falls State Park. RA-02 has the potential to impact approximately 245.7 additional acres for construction, requiring approximately 207.6 additional acres of forest clearing, would cross approximately 19 more waterways, and would cross approximately 33.7 more acres of wetland than the proposed Project.
- (b)** RA-02 would meet the project objectives and need and would be a technically feasible alternative. The RA-02 route would be more expensive and is more environmentally damaging than the proposed Project.

○ RA-03

- (a)** RA-03 is outside of the Bad River watershed, but would be located within the Montreal River, Bois Brule River, and Iron River watersheds of the Lake Superior Basin, the East Fork Chippewa River and West Fork Chippewa River watersheds of the Upper Chippewa River Basin, and the Upper Namekagon River, Totagatic River, Upper St. Croix and Eau Claire Rivers watersheds of the St. Croix River Basin. RA-03 is approximately 60.5 miles longer than the proposed Project. RA-03 crosses the Island Lake Hemlocks SNA and the Namekagon River, which is a Wild and Scenic River. RA-03 has the potential to impact approximately 878.9 additional acres for construction, requiring approximately 711.2 additional acres of forest clearing, would cross approximately 8 fewer waterways, and would cross approximately 319.7 more acres of wetland than the proposed Project.

- (b)** RA-03 meets the project objectives and need and is a technically feasible alternative. The RA-03 route would be more expensive due to the longer route length and RA-03 is more environmentally damaging than the selected route.
- No-Build Alternatives
- (a)** The continued operation of the existing Line 5 segment that crosses the Bad River Band of Lake Superior Chippewa Reservation land would not result in regulated wetland or waterway activities. However, this alternative is not reasonably available and capable of being implemented, as Enbridge's easements within the Bad River Band of Lake Superior Chippewa Reservation have expired and Enbridge was not granted authorization to continue to site the line through the reservation.
- (b)** Constructing an all-Canadian pipeline or using existing Canadian pipelines to replace Line 5 would not result in regulated wetland or waterway impacts within Wisconsin. Enbridge determined this alternative infeasible. This alternative is not in proximity to the Project and would not be consistent with the scope of the Project or its purpose of continuing to transport crude oil and NGLs through Enbridge's Line 5 pipeline.
- (c)** Switching to other existing pipelines to carry Line 5 products may avoid regulated wetland and waterway impacts, except where needed to upgrade or alter existing pipelines. This alternative presents logistical and technological challenges and would not be located in proximity to the Project. This alternative is considered infeasible because there are no other existing Enbridge pipelines that are geographically situated to serve all the receipt and delivery points that are served by Line 5's existing routing from Superior, through the Upper and Lower Peninsulas of Michigan, to Sarnia. There are also capacity constraints on existing pipelines. Existing Enbridge pipelines are limited to transporting either NGLs or crude oil, but not both; Line 5 is unique in that the pipeline has been installed with equipment to allow the transport of both crude oil and NGLs. The use of existing pipelines to transport Line 5 product would interrupt or otherwise deter the transportation of the original product in order to instead transport Line 5 product. This alternative would not be consistent with the scope of the Project or its purpose of continuing to transport crude oil and NGLs through Enbridge's Line 5 pipeline. This alternative is also impracticable when considering cost, logistics, and available technology.
- (d)** Transporting Line 5 products by other methods, such as rail cars, tanker trucks, or barges may avoid regulated wetland and waterway impacts. At present, there are no existing railroad routes that connect Enbridge's Superior Terminal to delivery locations; the use of barges would be dependent on seasonal and weather conditions; and the cost, logistics, and capacities utilizing alternative methods of transport would not be practicable. This alternative would not be consistent with the scope of the Project or its purpose of continuing to transport crude oil and NGLs through Enbridge's Line 5 pipeline.
- (e)** Entirely replacing Line 5 products with alternative energies or entirely offsetting the demand for Line 5 products through conservation and efficiency may avoid regulated wetland and waterway impacts. This alternative would not be consistent with the scope of the Project or its purpose of continuing to transport crude oil and NGLs through Enbridge's Line 5 pipeline to existing delivery points.

- (f) A No-Build alternative which would discontinue the transport of oil and NGLs through Line 5 would avoid regulated wetland and waterway impacts. This alternative would not be consistent with the scope of the Project or its purpose of continuing to transport crude oil and NGLs through its Line 5 pipeline to existing delivery points.
26. The Project includes a new, permanent pipeline corridor that will parallel an existing overhead, electrical transmission corridor for the first approximate 3.6 miles. Most of the remaining new, permanent pipeline corridor will not be co-located or adjacent to existing utility corridors. There are no discernable linear utility corridors that the pipeline could follow along the eastern portion of the route.
27. Enbridge conducted wetland delineations during the growing seasons in 2019 and 2020. During the wetland delineations, Enbridge also conducted WDNR Wetland Rapid Assessment Methodologies (WRAMs). This evaluation is a standardized approach to characterize wetland condition and functional value that relies on observable characteristics by trained professionals. Approximately 50 percent of the wetlands Enbridge delineated in 2019 were completed between October 1 and October 19. In the northern part of the state where the Project is located, vegetation may be senesced or dead at this time of year and floristic conditions can be difficult to fully assess during this period.
28. The Department reviewed a subset of randomly selected wetland WRAMs in greater detail. Enbridge assigned an overall functional value to each wetland based on a compilation of the ratings from the individual functional value categories. The Department's standard WRAM process does not recommend a single, overall WRAM rating approach, but instead assigns individual ratings to each distinct functional value category. Enbridge assessed approximately 26.0 acres of wetland as high functional value, approximately 57.1 acres of medium functional value, approximately 10.1 acres as low functional value, and approximately 8.0 acres of low-invasive functional value.
29. In between August 2022 and September 2022, Enbridge performed timed meander surveys for the subset of wetlands determined to be of medium to high overall functional value from the delineations completed in 2019-2020. During the timed meander surveys, Enbridge applied cover classes instead of absolute cover levels, as described in the Department's Timed Meander Survey protocol. Enbridge also used the midpoint of each cover class to assign coverage values in the Floristic Quality Assessment Calculators.
30. The Department completed field investigations throughout the proposed Project area in September 2020, August 2021, March 2023, June 2023, July 2023, and October 2023, to independently evaluate wetland boundaries, wetland quality and functions, waterway characteristics, potential geohazards, and potential environmental impacts from the proposed Project. Department fisheries staff completed field surveys within portions of the Project area in July 2023 and August 2023.
31. Enbridge delineated and identified approximately 101.1 acres of wetlands within the Project Area. Of the 101.1 acres of wetlands, approximately 28.1 acres were identified as palustrine emergent (PEM), 10.2 acres were palustrine scrub-shrub (PSS), and 62.8 acres were palustrine forested (PFO). The most common wetland plant communities were hardwood swamp (58.9 acres), fresh (wet) meadow (native subtype, 24.7 acres), and shrub-carr (7.0 acres).
32. Based on WRAM assessments conducted by Enbridge, almost half of the PFO and PSS wetlands that will be permanently cleared provide a "High" wildlife habitat functional value and "High" floristic quality. Almost one quarter of the wetlands provide "High" or "Exceptional" flood and stormwater storage, water quality

protection, and ground water processes functional values. Based on Enbridge's timed-meander survey, approximately two-thirds of the PFO wetlands that will be permanently cleared by the proposed project will have a known Floristic Quality Index rating of "High" or "Exceptional." Of the wetlands surveyed during the timed meander surveys, 55% indicated an "Exceptional" Coefficient of Conservatism (mean C-value) rating and 27% indicated a "High" mean C-value rating.

33. Different methodologies used to evaluate wetland condition and functional value can and do produce differing characterization for the same wetlands. To avoid underestimating the functional value of wetlands when reviewing results from these methodologies, the Department selected the highest documented functional value assessment or floristic value calculation as representative of the accurate wetland conditions.
34. The Project will result in approximately 0.023 acres (998.2 square feet) of permanent wetland fill from the construction of new, permanent access roads to mainline valve sites (MLVs) 1, 4, and 5. The wetland at MLV 1 is described as a lower quality Fresh (Wet) Meadow located within actively pastured farmland. The wetland at MLV 4 is described as a lower quality Fresh (Wet) Meadow located within a roadside ditch surrounded by a road and agricultural land; the wetland is dominated by native vegetation. The wetlands at MLV5 are described as medium quality Fresh (Wet) Meadow and Shrub-Carr located within a depression of a hay field that is regularly maintained and adjacent to a gravel road; the wetlands are dominated by native vegetation, with little invasive plant species.
35. The construction area for the Project includes the permanent ROW, temporary workspace (TWS), and additional temporary workspaces (ATWS). The permanent ROW will be used for pipeline installation and maintained after construction for inspection and maintenance. The TWS is immediately adjacent to the permanent ROW and is needed to facilitate construction of the pipeline, such as spoil storage and equipment operation. The ATWS are near or adjacent to the permanent ROW and TWS and are needed at discreet locations for additional project components, such as equipment staging and material fabrication.
36. The Project will result in 101.1 acres of direct, temporary wetland impact from clearing and pipeline installation. Direct Project-related disturbance within wetlands will occur throughout the construction area, along access roads, and at valve sites. Project activities that will result in direct impacts to wetlands during construction include wetland conversion from forested and scrub-shrub wetlands to emergent wetlands, grading, trenching, blasting, placement of construction matting, placement and storage of temporary spoils, and equipment/vehicle access.
37. Of the 101.1 acres of wetlands that will be temporarily impacted by the project, approximately 6.3 acres will be disturbed as a result of site preparation associated with trenchless installation (horizontal directional drill (HDD) or direct bore), 76.4 acres will be disturbed via open-cut trenching, and 2.6 acres will be blasted to accommodate pipeline installation. The remaining wetlands would be impacted from construction activities within the TWS and ATWS.
38. A permanent, 50-foot pipeline ROW corridor (30-foot corridor for HDD crossings) will be maintained in wetlands as part of the project along the pipeline. Approximately 30.0 acres of PFO wetland and 3.9 acres of PSS wetland will be permanently converted and maintained as PEM wetland. Enbridge proposes to mitigate for the permanent loss of wetland functional values through Wetland Compensatory Mitigation.
39. Outside of the permanent corridor, approximately 32.8 acres of PFO wetland and 6.3 acres of PSS wetland will be temporarily converted to PEM wetland in the TWS and ATWS as part of construction. These PFO and PSS wetlands will be restored by a combination of natural reforestation (i.e., stump sprouting, root sprouting, and natural recruitment) and supplemental bare root stock plantings. These restoration methods are designed to

restore shrub and forested wetlands in the temporary workspace to their pre-construction wetland types. Full restoration of these wetlands will likely require at least a decade, and in some circumstances multiple decades, depending on the age and establishment of the shrub and forested systems pre-construction. The time between conversion and restoration to pre-construction conditions will result in a temporal loss of wetland functional values. Enbridge proposes to mitigate for the temporal loss of wetland functions through Wetland Compensatory Mitigation.

40. There is an abundance of wetlands that are designated as wetlands in Areas of Special Natural Resource Interest (ASNRI) in the Project area that will be impacted by construction. These include wetlands in proximity to, or have a direct hydrologic connection to, cold water communities as defined in s. NR 102.04 (3) (a), including all trout streams and their tributaries and trout lakes; habitat used by state or federally designated threatened or endangered species, s. 29.604, Stat., ch. NR 27 and 16 USC 1531 to 1543; and other surface waters identified as outstanding or exceptional resource waters in ch. NR 102.
41. Based on Enbridge's Wetland Delineation Reports, WRAMs, and the Department's Final EIS, the Project will not cross or otherwise impact Great Lakes ridge and swale complexes, interdunal wetlands, coastal plain marshes, emergent marshes containing wild rice, southern sphagnum bogs, boreal rich fens, or calcareous fens.
42. Most of the Project will occur on private land, except for an approximately 7.5-mile segment on Iron County Forest land.
43. Enbridge captured civil survey and Light Detection and Ranging (LiDAR) elevation data along the Project ROW in 2020 and 2023. These data will be used as a baseline for restoration of preconstruction elevations.
44. Pursuant to 281.36, Wis. Stats., the Department considered all the following factors when it assessed the impacts to wetland functional values:
 - a) The direct impacts of excavation, blasting, placement of temporary matting, placement of temporary spoils, placement of permanent fill material, vehicle and equipment operation, and wetland conversion to wetland functional values.
 - b) The cumulative impacts attributable to the proposed project that may occur to wetland functional values based on past impacts or reasonably anticipated impacts caused by this or similar projects in the area affected by the project. Similar projects would primarily consist of other utility projects with long, linear construction areas, such as Xcel Energy's proposed Ashland to Ironwood electric transmission relocation project, natural gas pipelines, and telecommunication/fiber-optic projects. These (and similar transportation) projects are being constructed throughout the state, including within Ashland and Iron Counties, on a regular basis. Additionally, the state has seen an increase in broadband utility projects in recent years. As part of the construction of utility projects, regulated wetland and waterway impacts from construction can include vegetation clearing, trenching and backfill, placement of temporary bridges, and dredging, which are also the activities proposed by this project. Under s. 1.12(6), Wis. Stats., the new permanent ROW corridor could serve as a utility corridor for future utility projects in the region; the permanent corridor may serve as a priority for siting of other utility infrastructure and may be expanded or co-located with other utilities in the future. Although the Project corridor could serve as a siting priority for other utility projects in the future, the Project itself is not expected to promote new development in the area.

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- c) The potential secondary impacts to wetland functional values, including risk of inadvertent sediment releases during construction, recurring vegetation management for ROW maintenance, disturbance for pipeline maintenance, risk of oil spills, aquifer breaches, forest fragmentation and associated edge effect, and the temporal loss as a result of long-term PSS and PFO restoration. Permanent deforestation and conversion to non-forested vegetation can contribute to changes in the landscape's hydrology. Forested canopy intercepts rainfall, facilitates transpiration, and slows the rate of snow melt and runoff that moves across the landscape. Removal of forested canopy can increase the rate of runoff flowing over the land surface and into waterways and can impact groundwater recharge and discharge capabilities; this in turn can increase the risks of flooding and the erosion of soil, particularly the clayey soils. Permanent conversion of upland and wetland forests in the permanent ROW will impact ecosystem hydrology, decrease interior woodland habitat, biodiversity, connectivity, as well as expand invasive species opportunities. The openings created in the cleared linear corridor can also confine species that rely on open habitat. It is not anticipated the permanent wetland fill will result in alterations to the wetland hydrology within the remaining complexes.
- d) The mitigation that is required to compensate for impacts to wetland functional values under 281.36(3r). Compensatory mitigation is proposed for permanent wetland fill, conversion of PSS and PFO to PEM wetlands, and for temporal loss of wetland functions. Mitigation ratios include the following:

	Functional Value	Temporary Fill	Permanent Conversion	Permanent Fill	Ratio ¹	Ratio ²
PEM	Low-Medium	X			0.1	
	Low-Medium			X	1.2	
	High	X			0.1	
PSS	Low-Medium	X			0.06	
	Low-Medium		X		0.5	
	Low-Medium			X	1.5	
	High	X			0.25	
	High		X		0.6	
PFO	Low-Medium	X			0.25	0.5 / 0.75
	Low-Medium		X		0.6	0.85 / 1.1
	High	X			0.5	0.75 / 1
	High		X		0.7	0.95 / 1.2

¹ Ratio for in service area and in kind, ² Ratios for in service area and out of kind (PSS) / (PEM)

- e) The net positive or negative environmental impact of the Project. The Project will accommodate the relocation and operation of reliable, safe, and efficient energy infrastructure while minimizing new environmental impacts. The Project will also accommodate the continued extraction, transportation, and combustion of fossil fuels, land clearing, pipeline construction, ongoing ROW maintenance, and the potential for a pipeline release. Overall, the relationship between Enbridge's short-term use of Wisconsin's environment and the long-term productivity of Wisconsin's environment would be a net

negative. The number of net positive projects being conducted in the state may be limited to conservation and restoration projects. Almost any other land disturbing activities could be considered net negative.

45. Wetlands are common in the Superior Coastal Plain and North Central Forest Ecological Landscapes. Within the North Central Forest Ecological Landscape, wetlands are embedded within extensive forest cover and adjoin lakes, rivers, and streams. Wetlands account for approximately 30 percent of the landscape in Ashland and Iron Counties. Due to the considerable abundance and mosaic distribution of wetland networks traversing the region and the linear nature of the Project, wetlands cannot be practicably avoided in the construction of the Project. Enbridge encountered several constraints as part of their route alternative evaluation process.

- a) Lack of connected existing corridors that could be followed along the eastern portion of the route; while several roads and other corridors are present in the area, none of them travel in the direction required by the Project.
- b) Avoiding impacts to communities, including residences, schools, churches, commercial buildings, and traffic.
- c) Modifications in the route, workspace, and pipeline crossing method intended to avoid or minimize impacts on a specific resource area may shift those impacts to other resource areas, increase the overall length of the route, increase the amount of land disturbance, and/or increase the duration of construction within resources.
- d) Commercial pipeline construction typically favors a more linear design, limiting the distance and number of bends and curves.

46. Wetland functional values likely to be impacted by the Project include:

- a) Storm and flood water storage and retention and the moderation of water level fluctuation extremes. Construction disturbance associated with the Project may temporarily limit the ability for wetlands to slow and store runoff from rain and melting snow. It may also temporarily compromise flood storage capacity. Improper wetland restoration or sedimentation would result in long-term impacts.
- b) Hydrologic functions, including the maintenance of dry season streamflow, the discharge of groundwater to a wetland, the recharge of groundwater from a wetland to another area and the flow of groundwater through a wetland. Construction disturbance associated with the Project may temporarily interfere with normal surface water – groundwater interactions and limit the ability for wetlands to store and release water to streams or recharge groundwater. It may also temporarily compromise groundwater flows. Improper wetland restoration or sedimentation would result in long-term impacts.
- c) Filtration or storage of sediments, nutrients, or toxic substances that would otherwise adversely impact the quality of other waters of the state. Construction disturbance associated with the Project may temporarily inhibit wetlands from retaining and filtering compounds associated with runoff and snowmelt. Improper wetland restoration or sedimentation would result in long-term impacts.
- d) Shoreline protection against erosion through the dissipation of wave energy and water velocity and anchoring of sediments. Construction disturbance associated with the Project may temporarily prevent riparian wetlands from maintaining stable streambanks. It may also temporarily increase sediment loading. Improper wetland restoration or sedimentation would result in long-term impacts.

- e) Habitat for aquatic organisms in the food web including, but not limited to fish, crustaceans, mollusks, insects, annelids, planktonic organisms and the plants and animals upon which these aquatic organisms feed and depend upon for their needs in all life stages. Construction disturbance from the Project may temporarily disrupt aquatic organism lifecycles and habitat. Improper wetland restoration or sedimentation would result in long-term impacts.
 - f) Habitat for resident and transient wildlife species, including mammals, birds, reptiles and amphibians for breeding, resting, nesting, escape cover, travel corridors and food. Construction disturbance from the Project may temporarily disrupt the lifecycles of aquatic and terrestrial organisms and their habitat. Improper wetland restoration or sedimentation would result in long-term impacts.
 - g) Recreational, cultural, educational, scientific, and natural scenic beauty values and uses. Construction disturbance from the Project may temporarily prevent public use and enjoyment of these resources. Improper wetland restoration or sedimentation would result in long-term impacts.
47. The Department has determined that the Project represents the least environmentally damaging practicable alternative taking into consideration practicable alternatives that avoid wetland impacts.
- a) RA-01 is approximately 9.7 miles shorter than the proposed Project and crosses approximately 13 fewer waterways, but crosses approximately 12.6 more acres of wetland, specifically 2.2 more acres of forested wetland. A portion of RA-01 would cross CFSP, including an area of the state park that is designated as ASNRI and SNA. RA-01A would cross approximately 13 fewer waterways and 15.3 more acres of wetland than the proposed Project, including 4.6 additional acres of forested wetland. RA-01B would cross approximately 8 fewer waterways and 27.9 more acres of wetland than the proposed Project, including 16.7 additional acres of forested wetland. In addition, the consideration of RA-01, RA-01A, and RA-01B does not include any access roads that could be utilized, therefore the amount of resource crossings for RA-01, RA-01A, and RA-01B could be underestimated. Routes RA-01, RA-01A, and RA-01B are more environmentally damaging than the proposed route.
 - b) RA-02 is approximately 16.9 miles longer than the proposed Project and does not cross the CFSP property. RA-02 crosses approximately 19 more waterways and 33.7 more acres of wetland, including 18.1 additional acres of forested wetland. RA-02 would result in approximately 207.6 additional acres of forest clearing. In addition, the consideration of RA-02 does not include any access roads that could be utilized for RA-02, therefore the amount of resource crossings for RA-02 could be underestimated. Route RA-02 is more environmentally damaging than the proposed route.
 - c) RA-03 is approximately 60.5 miles longer than the proposed Project but would be outside of the Bad River Watershed and crosses 21 additional perennial waterways. RA-03 crosses approximately 319.7 more acres of wetland, including 272.3 additional acres of forested wetland, and would cross the Island Lake Hemlocks SNA and the Namekagon River, a Wild and Scenic River. RA-03 would result in approximately 711.2 additional acres of forest clearing. This does not consider any access roads that could be utilized for RA-03, therefore the amount of resource crossings for RA-03 could be underestimated. Route RA-03 is more environmentally damaging than the proposed route. Routes longer than RA-03 are also likely to result in greater environmental impacts.
 - d) The No-Build alternative of continued operation of the existing Line 5 is not reasonably available and capable of being implemented, as Enbridge's easements within the Bad River Band of Lake Superior

Chippewa Reservation have expired and the Band was not granted authorization to continue to site the line through the reservation.

- e) The No-Build alternatives which would result in the discontinuation of the transport of oil and NGLs and decommissioning of Line 5, including construction of an all-Canadian pipeline or using existing Canadian pipelines to replace Line 5; switching to other existing pipelines to carry Line 5 products; transporting Line 5 products via rail cars, tanker trucks, or barges; or entirely replacing the Line 5 products with alternative energies or offsetting the demand for Line 5 products would not be consistent with the scope of the Project or its purpose of continuing to transport crude oil and NGLs through its Line 5 pipeline. There is no existing pipeline designed to transport crude oil and NGLs from Enbridge's Superior Terminal to existing delivery points served by Line 5. There is currently no rail system which connects Enbridge's Superior Terminal to existing delivery points and construction of a new rail line is impracticable on account of cost and logistics. Transportation by truck or barge would additionally be impracticable on account of cost and logistics.
48. The amount of permanent wetland fill has been minimized to the extent practicable, taking into consideration the factors for valve siting and placement. Each mainline valve requires a permanent access road for operational, maintenance, and emergency access. Wetland impacts from access roads have been minimized to the extent practicable to maintain safe ingress/egress of operation equipment as well as emergency equipment (e.g., fire trucks).
49. The Department has determined that if all conditions of this permit are complied with that all practicable measures to minimize adverse impacts to wetland functional values will be taken.
50. As part of the Project application review process, Department staff collaborated with technical experts representing several government and tribal agencies. Department staff engaged in hundreds of interactions with Enbridge's team regarding the Project application, its alternatives, route modifications, impact minimization options, and the potential impacts. As a result, modifications have been made in the construction footprint, construction techniques, and/or restoration measures to avoid or further minimize wetland impacts.
51. Storage of excavated material in wetlands without adequate visual or physical barriers may prevent complete restoration. Placing excavated soils on construction matting, a thin layer of weed-free straw, a similar biodegradable material, a layer of snow, or a layer of ice during open-cut trenching in wetlands, as required by the conditions of this permit, can facilitate restoration.
52. Excavation, drilling, blasting, stockpiling, pipeline installation, and backfilling can alter groundwater discharge through seeps and springs. Enbridge is conducting hydrology monitoring in select high quality wetlands with shallow bedrock and high groundwater and seeps. Enbridge is required by the conditions of this permit to characterize existing seeps and springs and restore those features to pre-existing conditions.
53. Enbridge proposes and is required by the conditions of this permit to minimize direct impacts of the construction by minimizing the amount of permanent wetland fill, utilizing existing access roads where practicable, reducing the width of the construction workspace in wetlands from 120 feet to 95 feet, utilizing construction matting in travel areas of the corridor, segregating topsoil and subsoil, limiting stump grubbing, grinding, and grading to the trench line, locating staging and additional spoil areas at least 50 feet from wetlands where practicable, limiting the duration of an open trench, maintaining hydrology through the

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utilization of trench breakers, restoring seeps and springs, and implementing site-specific sediment and erosion control measures as required for compliance with WPDES Construction Site Storm Water permitting.

54. Enbridge proposes and is required by the conditions of this permit to minimize continuing impacts to wetland functional values by restoring wetlands to their pre-existing wetland soil profiles, elevations, and hydrology post-construction. Enbridge is required by the conditions of this permit to install monitoring wells prior to construction to collect baseline hydrologic data for high quality wetlands, wetlands within shallow bedrock and high groundwater and seeps, and wetlands proposed for blasting to ensure restoration of appropriate wetland hydrology. The Restoration and Post-Construction Monitoring plan in the Environmental Construction Plan (ECP) also includes active supplemental planting in disturbed wetlands. PEM wetlands will be seeded to provide temporary cover and supplemental perennial native revegetation. PFO wetlands in the temporary workspace will be seeded to provide temporary cover and planted with a combination of rootstock of balsam fir, black spruce, red maple, swamp white oak, tamarack, white pine, or yellow birch. Trees will be planted at a density of 100-300 stems per acre.
55. Enbridge is required by the conditions of this permit to operate vehicles and equipment in wetlands on construction matting or during stable ground conditions where operation will not result in soil rutting, mixing, or compaction; avoid placing excavated wetland soils directly on wetlands; minimize the width of the trench through wetlands to the extent practicable; plant supplemental bare root stocks in forested wetlands that are cleared for temporary workspaces; and conduct well monitoring at discrete locations along the trench line.
56. Enbridge is required by this permit to restore wetlands directly impacted by the Project to pre-existing elevations and hydrology; utilize a wetland seed mix that was developed in coordination with USEPA; perform post-construction monitoring, implement appropriate and effective BMPs in accordance with the Department's Construction Storm Water Permit; and plant bare root stocks in forested wetlands that are cleared for temporary workspaces.
57. Construction disturbance associated with the Project will impact floristic composition and integrity of wetlands, including fragmentation of forested areas; reduction in the size, integrity, and diversity of plant communities; temporal loss in the return of pre-construction condition and functions; and an increased risk of introducing or spreading invasive species. Enbridge has proposed, and the conditions in this permit require, wetland restoration to minimize long-term impacts to wetlands that are temporarily impacted by the pipeline construction.
58. Enbridge proposes to mitigate impacts to wetlands through a Compensatory Wetland Mitigation Strategy dated September 2021, revised in May and October 2024. Compensatory mitigation is proposed for permanent wetland fill, conversion of scrub-shrub and forested wetlands to emergent wetlands, and for temporal loss of wetland functions.

Type	Temporary Fill	Conversion	Permanent Fill	Credits ¹
Emergent	28.14	0	0.02	2.84
Scrub-Shrub	6.31	3.86	0	2.43
Forested	32.76	30.06	0	29.87

¹ Credits for in service area and in kind (credits for in service area and out of kind would differ)

Mitigation would include the purchase of a minimum of 35.14 mitigation credits for the Project from approved wetland mitigation banks in the Lake Superior Wetland Mitigation Service Area. If in-kind credits are available, Enbridge is required by the conditions of this permit to purchase these credits first, which would constitute 2.84 credits for wet meadow impacts, 2.43 credits for scrub-shrub impacts, and 29.87 credits for forested impacts. Additional mitigation credits would need to be acquired if out-of-kind mitigation is utilized in the Lake Superior Bank Service Area (or from the Wisconsin Wetland Conservation Trust in-lieu fee program). The Department has considered wetland mitigation under Chapter 281.36(3n)(d), Wis. Stats., and Chapter NR 350, Wis. Adm. Code. The Department has consulted with the U.S. Army Corps of Engineers (USACE) on its review of a wetland compensation mitigation plan. The Department requires compensatory mitigation for wetland losses associated with the Project and has determined that the proposed mitigation would compensate for the wetland functional values lost due to permanent fill, conversion of wetland types, and temporal impacts from construction. Enbridge is required by the conditions of this permit to obtain and provide proof of appropriate compensatory mitigation credits prior to starting any land-disturbing activities, including clearing.

59. The Department has determined the Project, if constructed in accordance with this permit, will not result in significant adverse impacts to wetland functional values, including, wildlife habitat, flood protection, shoreline protection, groundwater recharge and discharge, and recreation. The Project will avoid, minimize, restore, and mitigate wetland impacts. The restricted ROW width and temporary pipeline construction activities will diminish functional values in the temporary workspaces until the Project is complete and the wetlands are restored. PEM wetlands in the permanent ROW will be maintained and PSS and PFO wetlands in the temporary workspaces will be reestablished. Areas of temporary wetland excavation and fill will be restored, areas of temporary wetland conversion will naturally regenerate over time (supplemented with native bare root stock plantings), and wetland mitigation will be completed through the purchase of credits. Except for the habitat conversion associated with the permanently converted PSS and PFO, wetland functional value impacts are expected to be short in duration.
60. The Department has determined the Project, if conducted in accordance with the conditions of this permit, will not result in significant adverse impacts to water quality, including surface water and groundwater:
- a) Temperature – Stream temperatures are unlikely to increase greatly due to vegetation clearing and construction activities within waterways. Small, groundwater fed streams may experience localized thermal increases due to pipeline operation. These localized thermal increases may also occur where the pipeline is installed closer to the waterway bed (e.g., in areas of shallow bedrock).
 - b) Dissolved Oxygen - Major shifts in dissolved oxygen concentration would be unlikely to occur due to pipeline operation temperature increases or due to pipeline construction; dissolved oxygen would likely be affected in currently forested streams as a result of additional sunlight reaching the water, which would stimulate some growth (and therefore respiration) by algae, but the magnitude of this dissolved oxygen change would be unlikely to be large.
 - c) Conductivity – Stream conductivity may increase slightly during construction activities but is unlikely to cause biological impacts.
 - d) Total Phosphorus – Erosion from pipeline construction activities could contribute phosphorus to waterways. Additionally, soil amendments (e.g., fertilizer) containing phosphorus applied to riparian areas could contribute to loading. These impacts from the Project are expected to be low and short term.

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- e) Nitrates – Nitrate, a common nitrogen compound found in the environment, is lost from ecosystems in response to deforestation. The impact of those ecosystem nitrate losses on waterways are expected to be modest. Additionally, soil amendments (e.g., fertilizer) containing nitrogen applied to riparian areas could contribute to nitrate loading. Nitrates can also be introduced to the environment from bedrock blasting. Limiting the amount of ammonium nitrate fuel oil (ANFO) needed for blasting will minimize nitrate release impacts to water resources.
- f) BOD/COD – Neither biological oxygen demand nor chemical oxygen demand is expected to increase substantially due to the Project.
- g) PFAS – If PFAS are present in construction materials or equipment, there could be an increase in background levels after the Project. Standard construction equipment does not carry substantial loads of PFAS and would not likely contribute to PFAS loading in waterways.
- h) Sediment – Vegetation clearing and construction activities associated with the Project will expose soil and create opportunities for runoff and an increased sediment load in waterways. Implementation and proper maintenance of sediment and erosion control measures will limit impacts to receiving waters. Measures to minimize soil exposure associated with long-term vegetation management in the permanent ROW and pipeline maintenance activities will prevent runoff and increased sediment load in waterways. In-stream activities can disturb existing sediments causing turbidity and water quality impacts. Minimizing the extent and timing of in-stream disruption, avoiding sensitive habitat and life cycle periods for aquatic organisms, and restoring pre-existing geomorphology will minimize long-term impacts. Enbridge is required by the conditions of this permit to conduct water quality monitoring in accordance with the ECP. Enbridge filed an application with the Department for a WPDES Permit for Construction Site Storm Water. The WPDES permit requires Enbridge to implement best management practices to control storm water runoff in accordance with site-specific erosion control and storm water management plans to reduce sediment and other pollutants from entering waters of the state.
- i) Water Flow – Unless the waterways are completely dry for the entire duration of the activity below the ordinary high water mark (OHWM), trenching in the waterways is required to be completed using a work zone isolation system or bypass system to isolate the in-water work zone. Isolating the in-water work zone would minimize turbidity impacts to water quality. Enbridge is also required by this permit to restore streambed elevation to pre-existing conditions. Enbridge is required by this permit to restore waterway banks to stable conditions to prevent post-construction erosion and turbidity.
- j) HDD releases – It is likely that the Project will experience an inadvertent release (IR) during one or more of the proposed trenchless installations. Most IRs occur near entry and exit workspaces and the severity will be reduced by following the requirements in DNR Technical Standard 1072. Continuous monitoring and immediate cessation and containment during an IR in water resources, followed by comprehensive restoration, will reduce the water quality impact. Drilling fluid ingredients are not expected to affect groundwater water quality. Enbridge is required by this permit to only use drilling mud and drilling mud additives that have been approved for use by the Department.

61. The Department has determined the Project, if conducted in accordance with the conditions of this permit, will comply with water quality standards and protect surface water resources for all designated uses.

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- a) Unless the waterway is completely dry, trenching in waterways shall be completed using a work zone isolation system or bypass system, such as a dam and pump or dam and flume technique, to isolate the in-water work zone from the waterway. Temporary sediment and erosion control BMPs will be installed prior to beginning in-water work. Although in-water sediment concentrations (above background) may increase as a result of in-stream activities, those impacts are limited to the work zone and nearby downstream reach during construction. Those impacts can also be reduced by limiting the duration of the in-stream activities. BMPs will be inspected and maintained throughout construction and restoration activities and will be removed once final stabilization is achieved. In-water work conducted according to the conditions of this permit will not result in significant lowering of water quality of a waterway.
- b) Implementation and proper maintenance of sediment and erosion control measures as required by the conditions of this permit will reduce sediments and other pollutants from entering receiving waters. Measures to minimize soil exposure associated with long-term vegetation management in the permanent ROW and pipeline maintenance activities will prevent runoff and increased sediment load in surface water resources.
- c) The Project will not directly introduce effluent or new pollutants, including persistent, bioaccumulating toxic substances and pollutants listed in NR 102.12(12), Wis. Adm. Code, to surface water resources associated with construction or operation. In the event that the Project experiences an IR during one or more of the proposed trenchless installations, the severity will be reduced by following the requirements in DNR Technical Standard 1072 and the ECP. Drilling fluid ingredients are not expected to affect water quality.

62. The Department has determined that the proposed Project, if constructed in accordance with this permit, will not result in other significant adverse environmental consequences, including impacts to habitat, native species, recreation, and aesthetics:

- a) Although the Project will accommodate the continued extraction, transportation, and combustion of fossil fuels, the relocated infrastructure is expected to be a comparatively reliable and efficient method of energy transport that minimizes new environmental impacts. The Project will necessitate land clearing, pipeline construction, and ongoing ROW maintenance.
- b) The Department estimates the long-term probability of a spill occurring along the proposed Line 5 route to be low, .00317 spills of any size over 20 years. Safety protocols and operational standards have also greatly reduced the frequency of spills. Enbridge will construct 10 new mainline block valves as part of the project. In the event of a spill, the valve sites on either side of the spill would be turned off, limiting the amount of oil that would be released into the environment. Continuous monitoring and control of Line 5 is carried out by Enbridge personnel and systems housed in an existing Control Center that is staffed by pipeline operators 24 hours per day. Enbridge's Control Center would notify local emergency responders to respond to the site of a suspected spill and, depending on the location of a potential incident along the pipeline route, emergency response timing would typically be 60 minutes or less. Depending on location and response, a spill may present lower risk to certain sensitive receptors. Physical monitoring would also be conducted through line patrols, either by air or on foot, in accordance with federal requirements.
- c) Forest fragmentation is substantial within the Superior Coastal Plain, and the second-growth forest is broken up by agricultural lands and old fields in almost every part of the ecological landscape. Both

historically and presently, this region of the state has been impacted by logging practices and forestry business practices. Within the North Central Forest, logging practices resulted in removal of forest cover, physical damages to banks and shoreline vegetation, and a decrease in water quality. Historically, the Superior Coast Plain was almost entirely forested; presently, approximately one-third of this ecological landscape is now non-forested or sparsely forested due to past and present agricultural, logging, and residential development activities. Due to past logging practices, there are now fewer older forests in the northern part of the state and most are now less than 100 years old. Notwithstanding these environmental impacts from past logging practices, the landscape has been regenerating. It is anticipated areas of temporary impact from the Project will regenerate over time, similar to the regeneration that has occurred since historic logging impacts.

- d) Approximately 0.066% of the wetlands in the Project watersheds would be affected, including 0.022% that would include permanent conversion. Areas of temporary wetland excavation and fill will be restored, areas of temporary wetland conversion will naturally regenerate over time, supplemental bare root stock will be planted for enrichment, and wetland mitigation will be completed through the purchase of credits. The Project will avoid, minimize, restore, and mitigate wetland impacts.
- e) Permanent conversion of upland and wetland forests in the permanent ROW will impact ecosystem hydrology, decrease interior woodland habitat, biodiversity, connectivity, as well as expand invasive species opportunities. Restoration of upland and wetland forests in the temporary ROW will depend on a tailored plan that reflects the natural community characteristics. Proactively remedying anticipated declines in ash-dominated forests can offset the impacts from emerald ash borer. Supplementing natural regeneration with rootstock plantings from genotypes adapted to future climatic conditions, along with persistent monitoring and management will improve the likelihood of success in accordance with the conditions of this permit.
- f) Effects on wildlife during construction and operation could include disturbance from noise and human activities, displacement, stress, lower breeding success, direct mortality, and habitat alteration, loss, and fragmentation. Habitat-related disruptions would persist through construction until the temporary ROW is adequately restored while a subset of these disruptions would persist in the permanent ROW. Motile species will have more opportunities to avoid direct impacts than non-motile species, including flora, microflora, and microfauna. Although the Project will directly impact wildlife and their habitat, especially local populations, no state extirpations are expected.
- g) Vegetation clearing and construction activities associated with the Project will expose soil and create opportunities for runoff and an increased sediment load to water resources. Sedimentation can directly impact aquatic species, degrade water quality, and impair habitat. Sedimentation can also create opportunities for the introduction or establishment of invasive species. Implementation and proper maintenance of sediment and erosion control measures required by the conditions of this permit will reduce sediments and other pollutants from entering receiving waters. Measures to minimize soil exposure associated with long-term vegetation management in the permanent ROW and pipeline maintenance activities will prevent runoff and increased sediment load in waterways.

63. Approximately 200 navigable waterways are present within the Project area.

64. Approximately 30 navigable waterways will be crossed via trenchless methods (HDD or direct bore) and 70 navigable waterways will be crossed via open-cut trenching (dredging) in order to install the pipeline.

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Enbridge evaluated the suitability and impacts of crossing methods as part of its Pipeline Minimization Design. The Project will not cross Wild Rivers designated under s. 30.26, Wis. Stats, and ch. NR 302, Wis. Adm. Code.

65. The remaining 100 waterways will not be crossed by the pipeline installation directly, but will be located within the permanent ROW corridor, TWS, ATWS, access roads, pipeyards, and valve sites. These remaining 100 waterways may be crossed by temporary bridges, crossed by existing crossings (fords, bridges, culverts), or avoided during construction.
66. Approximately 61 navigable waterways will be crossed by temporary access roads. Enbridge will use existing crossings, modify existing crossing by adding temporary timber mats or gravel/rock, or place new temporary crossings.
67. Approximately 26 navigable waterways (7 perennial, 11 intermittent, 8 ephemeral) may require blasting to accommodate pipeline installation.
68. Construction activities will result in the installation of approximately 187 temporary clear span bridges (TCSBs) over navigable waterways. TCSBs facilitate equipment access but are expected to have less impact on water quality and stream flow than bridges with supports, culverts, or fords by eliminating direct disturbance in the stream or constricting flows. Based on field observations, all but two waterway crossings will be less than or equal to 35 feet wide. Of the 187 TCSBs, two will cross Tyler Forks (WBIC 2923100) near MP 33.43 and MP 34.04, where the waterway crossings are approximately 68-feet and 58-feet wide.
69. The Department determined 4 waterways (WDH-102_x1, WDH-102_x2, WDH-107_x1, WDH-107_x2) are non-navigable and therefore not within the Department's jurisdiction under Chapter 30, Wis. Stats.
70. Impacts to water quality and aquatic habitat from pipeline installation across waterways are minimized if the construction zone is isolated using a dam and pump or flume system or crossed via trenchless methods (boring). Adjacent to waterways, Enbridge is required by the conditions of this permit to maintain sediment control measures 20 feet from the stream prior to ground disturbing activities and to restore streambanks as near as practicable to preconstruction contours and elevations.
71. Pursuant to 30.12, Wis. Stats., the Department finds all of the following will be met by the placement of temporary structures on the bed of waterways, in the form of work zone isolation systems or flow bypass systems:
 - a) The structure or deposit will not materially obstruct navigation. Temporal disruption will be limited. Enbridge is required by the conditions of this permit to have pipeline segments assembled and ready for installation prior to excavation. In-stream waterway construction activities from open-cut trenching (coffer dams, bypass system, trenching, pipeline installation, backfilling, and stream restoration) will be completed in approximately 24 hours for waterways less than or equal to 10 feet wide and 48 hours for waterways between 10-100 feet wide. By conditions of this permit, Enbridge is required to allow safe portage around restricted areas of the ROW within navigable waters to anyone legally navigating the waterway. Enbridge is also required to provide navigational warning signs for approximately 17 waterway crossings, as specified in the ECP and Permit Table 1.
 - b) The structure or deposits will not be detrimental to the public interest. Temporal disruption to navigation and public recreation will be limited. Isolating the work zone by installing coffer dams and a streamflow bypass system of flumes or pumps will accommodate anticipated flows. The timing of in stream work will

be adjusted to avoid high flows that could overwhelm the bypass system. In-stream waterway construction is likely to result in short-term increases in sedimentation and turbidity. Isolating construction activities from the waterway as required by the conditions of this permit will minimize impacts to water quality, aquatic habitat, and anticipated flows. Pump intakes and discharges will limit impacts to fisheries, wildlife, and their habitat. Pump intakes or flume discharges will be placed and removed in a manner that prevents the disturbance, removal, and scour of bed material.

- c) The structure or deposits will not materially reduce the flood flow capacity of a stream. Temporal disruption to navigation and public recreation will be limited. In-stream waterway construction activities will isolate the work zone by installing coffer dams and a streamflow bypass system of flumes or pumps that accommodate anticipated flows. The timing of in stream work will be adjusted to avoid high flows that could overwhelm the bypass system or impede run-of-river flows.

72. Pursuant to 30.12, Wis. Stats., the Department finds all of the following will be met by the placement of permanent structures on the bed of waterways:

- a) The structure or deposit will not materially obstruct navigation. Existing physical conditions document bank instability due to erosion, undercutting, and sloughing at seven locations. Permanent riprap, biologs, and root wads placed along the sloped bank and toe of bank are intended to provide long term bank stability and prevent future erosion and scour. The structures will not obstruct flows or the stream channel. Any navigational uses will not be constrained.
- b) The structure or deposits will not be detrimental to the public interest. Existing physical conditions document bank instability due to erosion, undercutting, and sloughing at seven locations. Permanent riprap, biologs, and root wads are engineered to provide long term bank stability and prevent future erosion and scour. Establishing stable banks immediately after construction of the Project as required by the conditions of this permit will limit impacts to water quality, public recreation, and habitat from excess sediment loading.
- c) The structure or deposits will not materially reduce the flood flow capacity of a stream. Permanent riprap, biologs, and root wads placed along the sloped bank and toe of bank are intended to provide long term bank stability and prevent future erosion and scour. The structures will not obstruct flows or create a barrier from the floodplain.

73. Pursuant to 30.123, Wis. Stats., the Department finds all of the following will be met by the placement of temporary bridges across waterways:

- a) The bridges will not materially obstruct navigation. The TCSBs are temporary and will be removed once access is no longer needed. TCSBs will span the waterway from bank to bank and will not require in-stream supports. As required by the conditions of this permit, Enbridge will allow safe portage around restricted areas of the ROW to anyone legally navigating public waterways.
- b) The bridges will not materially reduce the effective flood flow capacity of any streams. The TCSBs are temporary and will be removed once access is no longer needed. Bridges will not be installed during high water levels or flooding if the water level or flooding could overwhelm the TCSB crossing. TCSB installation and removal will not result in dredging the waterway. TCSBs will be anchored to prevent them from being transported downstream during high flow conditions.

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- c) The bridges will not be detrimental to the public interest. Temporal disruption to navigation and recreation will be limited. Bridges installed for equipment access will span the waterway from bank to bank, will be placed perpendicular to the channel, and will not require instream supports. All TCSBs will be anchored to prevent them from becoming dislodged during high flows. Placement and removal of TCSBs will comply with timing restrictions approved by Department fisheries staff to avoid impacts to aquatic species movement. Use of TCSBs will minimize impacts to water quality, aquatic habitat, and anticipated flows. As required by the conditions of this permit, Enbridge will provide safe portage around restricted areas of the ROW to anyone legally navigating public waterways. Appropriate barriers, such as geotextile fabric and silt sock, are required by conditions of this permit and will be installed to prevent sediment and materials from entering the waterway during use of the TCSBs. The installation and removal of the TCSBs will be conducted in a manner that prevents sediment and debris from entering the waterway.

74. Pursuant to 30.20, Wis. Stats., the Department has determined the dredging of waterways is consistent with the public interest in navigable waters:

- a) If conducted in accordance with the conditions of this permit, dredging will not result in significant adverse impacts to the public rights and interests. Backfill material of the trench will consist of the originally removed bed material and the substrate features shall be returned to pre-construction conditions. If the stream bed in the crossing location has a unique substrate feature (i.e. cobbles, boulders, etc.), it will be returned to preconstruction conditions. Pools, riffles, and runs will be restored to pre-construction conditions. Banks will be restored to stable conditions. Downstream flow will be maintained in the waterway during all periods of open-trench construction. Dredging will comply with timing restrictions approved by Department fisheries staff to avoid impacts to aquatic species. Enbridge will provide safe portage around restricted areas of the ROW to anyone legally navigating public waterways.
- b) If conducted in accordance with the conditions of this permit, dredging will not result in environmental pollution, as defined in s. 299.01 (4). Unless the waterway is completely dry (no standing water, no flowing water) for the entire duration of the activity below the OHWM, including accounting for rain events during construction, trenching in the waterway shall be completed using a work zone isolation system or bypass system, such as a dam and pump or dam and flume technique, to isolate the in-water work zone from the waterway. Temporary sediment and erosion control BMPs will be installed prior to beginning in-water work. Enbridge assessed sediment dispersion associated with stream crossing activities. Although in-water sediment concentrations (above background) increase as a result of in-stream activities, those impacts are limited to the work zone and nearby downstream reach during construction. Those impacts can also be reduced by limiting the duration of the in-stream activities. BMPs will be inspected and maintained throughout construction and restoration activities and will be removed once final stabilization is achieved.

75. To avoid disruption to fish species and their habitat, through conditions of this permit, the Department is limiting construction timeframes or methods during specific time periods listed in Permit Table 1.

76. Permit conditions require Independent Environmental Monitors (IEMs) who are approved by the Department to oversee activities related to its authority, document permit compliance, and streamline communication with Enbridge and its contractor.

77. The Project, if constructed in accordance with this permit and protection measures required and recommended by the Department's Office of Energy Endangered Resources Energy Liaison, will avoid and minimize impacts to

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endangered resources. Enbridge is required by this permit to use upland seed mixes that contain $\geq 99\%$ native species (use of *Lolium perenne* is acceptable). Most recommended actions will be followed by Enbridge using a native seed mix as part of restoration as well as completing tree clearing during winter months. For those state-listed endangered resources that cannot be avoided, an Individual Incidental Take Permit will be issued or a Broad Incidental Take Permit that has already been issued will ensure take of those species is minimized pursuant to Wisconsin's Endangered Species Law (29.604, Wis. Stats.).

78. The proposed Project, if constructed in accordance with this permit, will comply with s. 44.40, Wis. Stats. Sites within USACE jurisdiction are subject to Section 106 of the National Historic Preservation Act review under the authority of USACE.

CONCLUSIONS OF LAW

1. The proposed project, if conducted in accordance with the conditions of this permit, meets the standards in s. 281.36, Wis. Stats., and Ch. NR 103, Wis. Adm. Code.
2. The proposed dredging activities in navigable waters, if conducted in accordance with the conditions of this permit, meet the standards in s. 30.20, Wis. Stats., and Ch. NR 345, Wis. Adm. Code.
3. The proposed placement of structures on the bed of navigable waters, if conducted in accordance with the conditions of this permit, meets the standards in s. 30.12, Wis. Stats., and Chs. NR 328 and 329, Wis. Adm. Code.
4. The proposed placement of temporary clean span bridges over navigable waters, if conducted in accordance with the conditions of this permit, meets the standards in s. 30.123, Wis. Stats., and Ch. NR 320, Wis. Adm. Code.
5. The Department has complied with the Wisconsin Environmental Policy Act, s. 1.11, Wis. Stats.

ORDER

IT IS THEREFORE ORDERED THAT the application of Enbridge Energy, LP, Docket # IP-NO-2020-2-N00471 is hereby approved with conditions.

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review department decisions shall be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

To request a contested case hearing of any individual permit decision pursuant to section 30.209 and/or 281.36 (3q), Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve

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a petition for hearing on the Secretary of the Department of Natural Resources, P.O. Box 7921, Madison, WI, 53707-7921. The petition shall be in writing, shall be dated and signed by the petitioner, and shall include as an attachment a copy of the decision for which administrative review is sought. If you are not the applicant, you must simultaneously provide a copy of the petition to the applicant. If you wish to request a stay of the project, you must provide information, as outlined below, to show that a stay is necessary to prevent significant adverse impacts or irreversible harm to the environment. If you are not the permit applicant, you must provide a copy of the petition to the permit applicant at the same time that you serve the petition on the Department.

The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30 day period for filing a petition for judicial review.

A request for contested case hearing must meet the requirements of section 30.209 and/or 281.36 (3q), Wis. Stats., and sections NR 2.03, 2.05, and 310.18, Wis. Admin. Code, and if the petitioner is not the applicant, the petition must include the following information:

1. A description of the objection that is sufficiently specific to allow the department to determine which provisions of this section(s) may be violated if the proposed permit is allowed to proceed.
2. A description of the facts supporting the petition that is sufficiently specific to determine how the petitioner believes the project, as proposed, may result in a violation of the provisions of this section(s).
3. A commitment by the petitioner to appear at the administrative hearing and present information supporting the petitioner's objection.

If the petition contains a request for a stay of the project, the petition must also include information showing that a stay is necessary to prevent significant adverse impacts or irreversible harm to the environment.

Dated at Madison, WI on November 14, 2024.

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

By 

Benjamin Callan

Director, Waterways Program

EXHIBIT B

State of Wisconsin

DEPARTMENT OF NATURAL RESOURCES

101 S. Webster St.

Madison, WI 53703

Tony Evers, Governor

Telephone 608-266-2621

Toll Free 1-888-936-7463

TTY Access via relay - 711



November 14, 2024

Docket # IP-NO-2020-2-N00471

Joe McGaver
Enbridge Energy, LP
11 E. Superior Street, Suite 125
Duluth, MN 55802

Subject: Enbridge Line 5 Wisconsin Segment Relocation Project

Dear Mr. McGaver:

Enbridge Energy, LP (Enbridge) has applied to the Department of Natural Resources (Department) for a water quality certification (WQC) pursuant to Section 401 of the Clean Water Act (33 U.S.C. 1341) and 40 CFR Part 121 applicable to a federal permit authorizing impacts to Waters of the United States in conjunction with the construction of approximately 41.1 miles of 30-inch diameter crude petroleum pipeline (known as Line 5), referred to as the Line 5 Wisconsin Segment Relocation Project (Project).

The Department has determined that there is reasonable assurance that the proposed activity will be conducted in a manner that will comply with state water quality standards enumerated in ss. NR 103.03, 103.08, and 299.04, Wis. Adm. Code, and grants water quality certification with conditions. The following conditions are required to ensure compliance with the Clean Water Act Section 401 and state water quality standards enumerated in ss. 103.03, 103.08, and NR 299.04, Wis. Adm. Code.

The Department will publish this notice on its internet website. The Department's waterway and wetland permit decision is being sent under separate cover. Please be aware that Section 401 Certification does not release the permittee from obtaining all other necessary federal, state, and local permits, licenses, certificates, approvals, registrations, charters, or similar forms of permission required by law. It does not limit any other state permit, license, certificate, approval, registration, charter, or similar form of permission required by law that imposes more restrictive requirements.

Please contact the Department's Office of Energy if you have any questions regarding this certification decision at DNROfficeofEnergy@wisconsin.gov.

Sincerely,

A handwritten signature in blue ink, appearing to be 'B. Callan'.

Benjamin Callan
Director, Waterways Program

cc: Tim Drake, ERM

Bad River Band of Lake Superior Chippewa NRD

Red Cliff Band of Lake Superior Chippewa

William Sande, U.S. Army Corps of Engineers

Melissa Blankenship, U.S. Environmental Protection Agency

Kate Angel, DOA

Ashland County Zoning Administrator

Bayfield County Zoning Administrator

Douglas County Zoning Administrator

Iron County Zoning Administrator

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401 WATER QUALITY CERTIFICATION

The Wisconsin Department of Natural Resources (Department) received a water quality certification (WQC) request pursuant to Section 401 of the Clean Water Act (33 U.S.C. 1341) and 40 CFR Part 121, requested by U.S. Army Corps of Engineers (USACE), for the Enbridge Energy Line 5 Relocation Project (Project) in Ashland County and Iron County, Wisconsin.

The Department has examined this application as it relates to Clean Water Act Section 401, Chs. 30, 281, and 283, Wis. Stats., and Chs. NR 102-105 and 299, Wis. Adm. Code. The Department has determined the following conditions are required to ensure compliance with the Clean Water Act Section 401 and state water quality standards enumerated in ss. NR 103.03, 103.08(4) and 299.04, Wis. Adm. Code.

Please be aware that Section 401 Certification does not release the permittee from obtaining all other applicable permits, licenses, certificates, approvals, registrations, charters, or similar forms of permission required by law. It does not limit any other state permit, license, certificate, approval, registration, charter, or similar form of permission required by law that imposes more restrictive requirements.

The Department anticipates that these water quality certification conditions will be incorporated into U.S. Army Corps of Engineers permitting decisions. Please reach out to DNROfficeofEnergy@wisconsin.gov if you have any questions or concerns about this certification.

CERTIFICATION CONDITIONS

I. Notification of Commencing Discharge.

1. You shall notify the Department via email at DNROfficeofEnergy@wisconsin.gov before starting construction and again not more than five days after the Project is complete.

Justification: Necessary to allow the Department to ensure compliance with state water quality standards in Chs. NR 102-105, Wis. Adm. Code, and to impose necessary monitoring requirements, pursuant to s. NR 299.05(3)(d)2.a., Wis. Adm. Code.

II. Notification of Completion Discharge.

2. You shall notify the Department via email at DNROfficeofEnergy@wisconsin.gov before starting construction and again not more than five days after the Project is complete.

Justification: Necessary to allow the Department to ensure compliance with state water quality standards in Chs. NR 102-105, Wis. Adm. Code, and to impose necessary monitoring requirements, pursuant to s. NR 299.05(3)(d)2.b., Wis. Adm. Code.

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III. Reasonable Entry and Access.

3. You shall allow access to your Project site(s) during reasonable hours to any Department employee or state-authorized monitor who is investigating the Project's construction, operation, maintenance, or WQC compliance.

Justification: Necessary to allow the Department to ensure compliance with state water quality standards in Chs. NR 102-105, Wis. Adm. Code, and to impose necessary monitoring requirements, pursuant to s. NR 299.05(3)(d)2.c., Wis. Adm. Code.

IV. Construction.

4. This WQC does not authorize any work other than what is specifically described in your application materials, Environmental Construction Plan (ECP, dated October 2024), and as modified by the conditions of this WQC. Final Department-approved plans and accompanying documents, as well as plans developed and approved pursuant to the conditions of this WQC, are a part of, and are conditions of, this WQC. If you wish to alter the Project or WQC conditions, you shall first obtain written approval from the Department.
5. Changes to the prescribed crossing techniques may occur only if approved in writing by the Department.
6. You shall implement the approved ECP, dated October 2024.
7. No wetlands may be disturbed beyond the area specifically described in Permit Table 1 of Department Permit IP-NO-2020-2-N00471.
8. This WQC does not authorize any work within the permanent right-of-way (ROW) corridor, temporary workspaces (TWSs), additional temporary workspaces (ATWSs), access roads, or staging areas after completion of the Project and restoration.
9. Prior to beginning construction, you shall flag or stake the boundaries of the authorized construction area limits in a manner that ensures all individuals can readily identify the boundaries of the authorized construction area limits and ensures the construction activities will only occur in areas authorized by the permitting/certifying agencies.
10. You shall ensure that all aquatic resources (e.g. wetlands, waterways) in the vicinity of the construction area that are not authorized to be impacted by the Project are clearly identified in the field as specified in the ECP.
11. Any springs encountered in the ROW that cannot be avoided by construction must be characterized (i.e., location and flow rate) and documented prior to disturbance. These springs shall be restored to pre-existing flow regimes and conditions as required by the Department.

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12. You shall maintain the pipeline in a manner that ensures it does not cause deleterious impacts to waterways, wetlands, and/or groundwater.
13. You shall provide sufficient oversight of all contractors and subcontractors working on the Project on Enbridge's behalf to ensure the work is performed in full compliance with permit conditions, submitted and Department-approved plans and application materials, and Section 401 WQC.
14. Temporary access roads necessary to inspect and repair erosion and sediment control practices pursuant to your Department Construction Site Storm Water Permit coverage shall remain in place until the area disturbed is documented as meeting final stabilization, as defined in your Department Construction Site Storm Water Permit coverage, unless otherwise approved in writing by the Department.
15. Vegetation clearing in the areas of trenchless installation shall be limited to what is required by the Pipeline and Hazardous Materials Safety Administration (PHMSA) or as necessary for drill path inspection.

Justification: Pursuant to s. NR 102.04(1), Wis. Adm. Code, substances that will cause objectionable deposits on the shore or in the bed of a body of water may not be present in amounts that interfere with public rights in water of the state. Pursuant to s. NR 103.03(2)(a), Wis. Adm. Code, liquids, fill, or other solids or gas may not be present in amounts that may cause significant adverse impacts to wetlands. Pursuant to ss. NR 103.03(2)(e) and (f), hydrological conditions necessary to support the biological and physical characteristics naturally present in wetlands shall be maintained, and existing habitats and the populations of wetland animals and vegetation shall be protected.

V. Erosion and Sediment Control Practices.

16. You shall follow the final Erosion Control Plans from the ECP including information shown on maps and described in the narrative used to obtain Department Construction Site Storm Water Permit coverage along with any amendments approved by the Department.
17. Construction shall be accomplished in such a manner as to minimize erosion and siltation into surface waters, including wetlands, and as specified in the ECP or approved pursuant to this WQC. The Project shall also be conducted in a manner that minimizes dispersal of sediment away from the Project site.
18. Sediment and erosion control best management practices (BMPs) for Wisconsin Pollutant Discharge Elimination System (WPDES) Construction Site Stormwater General Permit compliance that meet or exceed Technical Standards under subch. V of s. NR 151, Wis. Adm. Code shall be installed prior to any land disturbing activities. The technical standards are found at:
http://dnr.wi.gov/topic/stormwater/standards/const_standards.html.
19. Temporary sediment and erosion control BMPs shall be installed prior to beginning in-water work, including the installation of temporary clear span bridges (TCSBs) where grading will occur prior to installation. BMPs shall be inspected and maintained throughout construction and restoration activities and shall be removed once final stabilization is achieved.
20. Erosion control measures shall be inspected, and necessary repairs or maintenance performed prior to every forecasted rainfall event that may exceed ½ inch, after every rainfall event that exceeds ½ inch, and at least

once per week until final site stabilization is achieved. You shall maintain a log of the erosion control inspections, repairs made, and rain events. The log shall be made available to any Department personnel upon request.

21. Erosion control measures as required by this WQC shall be in-place and effective during every phase of the Project and at the end of each working day.
22. Access roads that cross wetlands and waterways, and are in active use, shall be inspected regularly throughout the day to ensure appropriate BMPs are in place and effective in preventing sediment, debris, fluids, etc. from entering wetlands and waterways. Damaged or defective erosion and sediment control devices along access roads that cross wetlands or waterways shall be repaired or replaced immediately.
23. During active construction, sediment control devices shall be inspected daily and at regular intervals throughout the working day within and adjacent to wetlands, waterways, and sensitive resources.
24. Damaged or defective erosion and sediment control devices shall be repaired or replaced immediately.
25. You shall have spill kits readily available at each location where fueling, equipment maintenance, or other activities are taking place that could result in a spill. Spill kits shall be in close proximity to the operations and staff shall be notified of their location. Material within the spill kits shall be replenished after use. Any spills that occur in waterways or wetlands shall be immediately reported to the Independent Environmental Monitor (IEM) and cleaned up, as specified in the ECP.
26. You shall limit the storage of vehicles and equipment within wetlands. All vehicles and equipment stored overnight in wetlands shall use secondary containment measures as specified in the ECP to prevent any inadvertent fluid or oil spills.
27. When more than ½ inch of rain is forecasted within 24 hours and unvegetated wetland spoils are located on slopes exceeding 5%, you shall place tarp or similar materials over the unvegetated wetland spoil piles where there is any potential for sediment discharge to wetlands, waterways, or sensitive resources.
28. Measures specified in the ECP shall be implemented to prevent fluid leaks (e.g., fuel, oil, hydraulic, coolant, etc.) from vehicles and equipment into wetlands or waterways. Prior to entering wetlands and waterways, vehicles and equipment shall be inspected for fluid leaks. If fluid leaks are observed, the leaks shall be corrected, and the equipment shall be cleaned prior to entering the wetland or waterway. During active construction within wetlands and waterways, vehicles and equipment shall be regularly inspected for oil/fluid leaks. If oil/fluid leaks are observed, the leaks shall be contained, properly cleaned up, and corrected prior to continuing work within the wetland or waterway.
29. Erosion control matting, blankets, and/or netting used in and adjacent to waterways and wetlands to prevent erosion during the establishment of vegetation shall be made from natural fiber only, without any synthetic mesh or netting, and contain biodegradable thread with the “leno” or “gauze” weave (contains strands that are able to move independently).

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30. No portion of the waterway banks, wetland, or upland that is altered or disturbed and, as a result, unstable, shall remain unprotected for more than seven days as specified in the WPDES Construction Site Stormwater General Permit and the ECP.
31. Any area where topsoil is exposed during construction shall be stabilized as specified in the WPDES Construction Site Stormwater General Permit and the ECP to prevent soil from being eroded and washed into wetlands, waterways, and sensitive resources.
32. The removal of vegetative cover and exposure of bare ground shall be restricted to the minimum necessary for construction. Areas where soil is exposed shall be protected from erosion as soon as possible after removal of the original ground cover, as specified in the WPDES Construction Site Stormwater General Permit and the ECP.
33. Where the remaining work within a section of the Project is limited to maintaining access needed to construct adjacent segments or inspect and maintain restoration practices, the portion of the work area not needed for access shall be stabilized as soon as possible, but not to exceed seven days, as specified in the WPDES Construction Site Stormwater General Permit and the ECP.
34. Land applied additives such as tackifiers, shall not be applied to wetlands, waterways, or waterway banks.
35. If hydroseeding/hydromulching is utilized on the banks of waterways, it shall not be applied during rain events and shall be applied per manufactures guidelines on cure time before rain events.
36. Fertilizer shall not be applied to wetlands or adjacent to waterways unless approved by the Department.
37. All stockpiled spoils, supplies, or materials shall be isolated from wetlands and waterways as specified in the ECP to prevent impacts to those resources.
38. After any part of the site reaches final stabilization, or at the direction of the Department, all temporary erosion control measures in that part of the site shall be removed and disposed of properly. "Final stabilization" means that all land disturbing construction activities at the construction site have been completed and that a uniform perennial vegetative cover has been established with a density of at least 70% of the cover for the unpaved areas and areas not covered by permanent structures or that employ equivalent permanent stabilization measures.
39. You shall remove all construction debris and waste immediately after construction.
40. Permanent berms or slope breakers shall not be installed in wetlands.
41. If permanent berms or slope breakers will be installed adjacent to wetlands, you shall place the permanent berms upslope of the wetlands. The length of permanent berms or slope breakers perpendicular to the slope within the corridor shall be minimized to the extent practicable with sufficient energy dissipation provided at discharge points to avoid creating erosion in or draining to wetlands.

Justification: Pursuant to s. NR 102.04(1), Wis. Adm. Code, substances that will cause objectionable deposits on the shore or in the bed of a body of water may not be present in amounts that interfere with public rights in water of the state. Pursuant to s. NR 103.03(2)(a), Wis. Adm. Code, liquids, fill, or

other solids or gas may not be present in amounts that may cause significant adverse impacts to wetlands. Pursuant to ss. NR 103.03(2)(e) and (f), hydrological conditions necessary to support the biological and physical characteristics naturally present in wetlands shall be maintained, and existing habitats and the populations of wetland animals and vegetation shall be protected. In-water and upland BMPs in alignment with NR 151, Wis. Adm. Code, help ensure excessive sedimentation, Total Suspended Solids (TSS), and nutrient loadings will not result in a violation of state water quality standards under ss. NR 103.03, 102.04 and 102.06, Wis. Adm. Code.

VI. Equipment Use.

42. All construction equipment used for the Project shall be the right size to do the job and shall be brought to and removed from the Project site without unreasonable harm to vegetative cover and/or fish and wildlife habitat as specified in the ECP.
43. All equipment used in wetlands shall be designed, properly sized, and operated to avoid disturbance to wetlands, including soil rutting and compaction.
44. You shall limit the extent of blasting in wetlands, waterways, and sensitive resources to the greatest extent practicable.
45. You shall follow the blasting plan that was submitted as part of your ECP.

Justification: Pursuant to ss. NR 102.04(1) and NR 102.06, Wis. Adm. Code, objectionable deposits and nutrients may not be present in amounts that interfere with public rights and interests or exceed water quality standards for surface water. Ensuring proper equipment sizing and use will help achieve compliance with NR 151, Wis. Adm. Code, standards and helps ensure excessive sedimentation, TSS, and nutrient loadings will not result in a violation of state wetland water quality standards under s. NR 103.03, Wis. Adm. Code.

VII. Fish spawning.

46. To minimize adverse impacts on fish movement, fish spawning, and egg incubation periods, the placement and removal of TCSBs and any in-water work shall not occur during the time periods listed in Permit Table 1 of Department Permit IP-NO-2020-2-N00471, unless waived or modified in writing by the Department's regional Fisheries Biologist. The timing restrictions only apply to waterways that have standing or flowing water at the time that the regulated activity occurs.

Justification: Pursuant to s. NR 102.04(3), Wis. Adm. Code, aquatic life designations include spawning areas for cold water and warm water fish and aquatic life habitat. Water quality criteria are derived to ensure spawning activities in Wisconsin are protected.

VIII. Wetland protection.

47. You shall implement the Compensatory Mitigation Strategy in the ECP (October 2024). Prior to beginning land disturbing activities within the wetland areas, you shall purchase mitigation credits for the Project from approved wetland mitigation banks in the Lake Superior Bank Service Area. If in-kind credits are available, they must be purchased first for a total of 35.14 credits. After all available in-kind credits are purchased, you shall purchase any additional mitigation credits through out-of-kind mitigation in the Lake Superior Bank Service Area. Required mitigation ratios are detailed in the ECP and Findings of Fact. In the event that no mitigation bank credits are available in the Lake Superior Bank Service Area, you shall purchase mitigation credits from the Wisconsin Wetland Conservation Trust in-lieu fee program.
48. A copy of the affidavit of credit purchase from the mitigation bank(s) (or from the Wisconsin Wetland Conservation Trust in-lieu fee program), for the full amount of credits specified in the Compensatory Mitigation Strategy, shall be provided to the Department. Land disturbing activities shall not occur within the wetland areas until the full amount of wetland mitigation credits have been purchased and the affidavit of credit purchase is submitted to the Department.
49. The permanently cleared and maintained pipeline corridor in wetlands shall be limited to 50 feet wide in areas of trenching installation and 30 feet wide in areas of trenchless installation.
50. TWSs in wetlands shall be limited to 95-foot wide. TWSs and ATWSs shall be limited to those approved in Department Permit IP-NO-2020-2-N00471.
51. All wetland boundaries shall be marked with signs in the field prior to clearing activities and shall remain in place throughout all phases of construction, including restoration. Signs shall be installed so they are not obscured by vegetation growth and/or snow cover.
52. IEMs shall confirm that all wetland boundaries have been accurately marked in accordance with the Project's wetland delineation data prior to clearing and/or any construction activities.
53. You shall notify the Department of any additional wetlands identified that were not part of the wetland delineation reports.
54. You shall not place soil or gravel, including on top of construction matting, for the construction of temporary access roads or staging areas in wetlands, unless approved in writing by the Department.
55. You shall not place gravel or stone in wetlands as part of tracking pads, unless approved in writing by the Department. If stone tracking pads cannot be located in uplands, other trackout control practices may be used as described in Technical Standard 1057. Manufactured trackout control practices must be able to prevent sediment from entering the wetland below.

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56. This WQC does not authorize the construction of permanent access roads within wetlands, except for permanent access roads to mainline valve sites 1, 4, and 5.
57. Large woody debris and brush piles resulting from clearing activities shall not be deposited in wetlands.
58. To the extent practicable, chipped, woody debris shall be removed from wetlands. If chipped, woody debris cannot be removed from wetlands, you shall thinly scatter wood chips evenly at a depth no greater than 2 inches. Chipped, woody debris remaining in wetlands shall not impede revegetation, alter surface elevations, and/or obstruct the natural flow of water.
59. Access through wetlands, including equipment travel, shall be minimized as specified in the ECP.
60. You shall minimize the size of the construction workspaces in wetlands as specified in the ECP.
61. You shall minimize the width of the trench through wetlands as specified in the ECP. Where support is needed in the trench due to depth, soil type, or soil saturation, use of trench boxes shall be considered first. Sheet piling shall only be used where necessary for personnel safety.
62. You shall not remove roots or stumps in wetlands within the corridor if the pipeline will be installed via trenchless methods, unless required for safety reasons.
63. Grading in wetlands, including topsoil stripping, shall be limited to the trench line.
64. Stump and root removal of woody vegetation in wetlands shall be limited to the trench line, unless required for safety reasons.
65. The Project shall not result in adverse changes to wetland hydrology, as specified in the ECP.
66. When constructing in wetland areas without standing water, you shall segregate the topsoil from the subsoil. If topsoil layers are observed to be shallower or deeper within different locations of the Project, you shall adjust accordingly to properly segregate topsoil from subsoil.
67. In wetlands with standing water, you shall segregate as much of the organic layer as possible based on site and saturation conditions. Where there may be standing water over more cohesive layers, you shall take the first excavated bucket of material and separate it from subsoil material based on the limitations of the soil characteristics and the limits of the workspace.
68. You shall segregate confining layers from topsoil and subsoil and return confining layers to their pre-construction conditions. This does not apply to areas of bedrock that would be blasted and removed from the trench.
69. You shall segregate the uppermost layers of peaty soil, sphagnum mosses, and other native bryophytes from the remaining topsoil and return the uppermost layers as they were removed. Excavated peaty soil,

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sphagnum mosses, and/or other native bryophyte spoils shall be maintained to prevent desiccation and degradation of the matrix. Excavated peaty soil, sphagnum mosses, and other native bryophytes shall be returned to their original layer as quickly as possible to minimize disruption.

70. Topsoil and confining layers shall be replaced to its original stratum. Subsoil shall be removed or replaced to its original stratum.
71. The remaining native fill that will not be used as backfill or for crowning above the pipeline (surplus excavated material that has been displaced by new pipeline, pipeline bedding, pipeline installation materials) shall not be re-dispersed in wetlands. Any of the remaining native fill shall be disposed of in an upland area or at an authorized facility.
72. Trenches shall be backfilled (including topsoil placement) within 72 hours of pipeline installation, unless approved in writing by the Department or IEM.
73. Seeding and site stabilization activities shall occur within 20 days of backfilling the trench line, as specified in the ECP.
74. You shall submit the final acreage of actual wetland impacts associated with this Project within 30 days of Project completion. This information shall be submitted in a new column added to Permit Table 1 of Department Permit Docket IP-NO-2020-2-N00471.
75. Construction mats shall be unused or decontaminated prior to placement and use. The matting used over reed canary grass populations shall not be re-used as part of the Project, even if decontamination protocols are implemented.
76. You shall operate vehicles and equipment in wetland on construction matting or during stable ground conditions where operation will not result in soil rutting, mixing, or compaction.
77. Construction mats placed in wetlands shall be removed as soon as possible but shall not be removed until final cleanup of a pipeline installation segment is complete and heavy equipment will no longer be working within that particular segment. Construction matting shall not be left in wetlands during the growing season for longer than necessary.
78. Excavated wetland soils shall be stockpiled on construction matting, a thin layer (no more than 2 inches) of weed-free straw or a similar biodegradable material, an adequate layer of snow, or an adequate layer of ice to serve as a physical and visual barrier between spoils and the undisturbed wetland underneath.
79. All construction waste materials shall be removed from wetlands immediately at the completion of construction.

Justification: Pursuant to s. NR 103.03(2)(a), Wis. Adm. Code, liquids, fill, or other solids or gas may not be present in amounts that may cause significant adverse impacts to wetlands. Pursuant to ss. NR 103.03(2)(e) and (f), hydrological conditions necessary to support the biological and physical

characteristics naturally present in wetlands shall be maintained, and existing habitats and the populations of wetland animals and vegetation shall be protected.

IX. Invasive Species.

80. You shall implement the Invasive and Noxious Species Management Plan included in the ECP and as prescribed in this WQC.
81. All Project activities, including clearing and post-construction monitoring, shall be in compliance with the ECP's Invasive and Noxious Species Management Plan and NR 40, Wis. Adm. Code.
82. You shall ensure that all machinery and equipment used for all phases of the Project, including during post-construction monitoring events, has been de-contaminated as specified in the ECP's Invasive and Noxious Species Management Plan for invasive species prior to use and after use within wetlands and waterways. Best management practices for invasive species can be found at: <http://dnr.wi.gov/topic/Invasives/bmp.html>.
83. Prior to beginning the Project and each annual post-construction monitoring event in accordance with the ECP, all Project personnel shall receive training and informational materials on invasive species identification, prevention strategies, personnel and equipment/vehicle cleaning, and locations of known invasive species within the Project Area.
84. Prior to vegetation clearing, you shall install flags and/or signage notifying crews of the boundaries (or the presence of, for aquatic invasive species) of known state restricted and/or prohibited terrestrial and aquatic invasive species populations, in addition to reed canary grass, that overlap with the Project area.
85. Prior to beginning the Project, you shall pre-treat (e.g., targeted spraying, manual, mechanical) known locations of terrestrial plant invasive species, including reed canary grass, located within the Project pipeyards, staging areas, and laydown yards, as specified in the ECP's Invasive and Noxious Species Management Plan. You shall install visible barriers and signage notifying crews to avoid the invasive species areas within the pipeyards, staging areas, laydown yards. Areas of pre-treatment shall be recorded, including the location of treatment, species treated, type of treatment, and treatment amount. You shall maintain these treatment records until the completion of restoration requirements and provide to the Department upon request.
86. Prior to beginning the Project, you shall pre-treat (e.g., targeted spraying, manual, mechanical) known locations of terrestrial plant invasive species, in addition to reed canary grass, in the construction corridor, TWSs, ATWSs, and access roads, as specified in the ECP's Invasive and Noxious Species Management Plan, considering species-specific treatment methods, timing of implementation, quality of the surrounding vegetation, proximity to water resources, agency or land management authorizations/specifications, etc. Areas of pre-treatment shall be recorded, including the location of treatment, species treated, type of treatment, and treatment amount. You shall maintain these treatment records until the completion of restoration and provide to the Department upon request.
87. Prior to beginning the Project, and prior to each annual post-construction monitoring event in accordance with the ECP, personnel cleaning stations shall be set up and used by all site personnel in entry/exit

locations (or along the construction corridor, depending on the site and construction sequencing) for areas with known populations of reed canary grass, areas of known state restricted and/or prohibited invasive species, areas where gear is unloaded and loaded, and as directed by the IEMs. You shall provide and maintain personnel cleaning tools (e.g., stiff brushes, boot brushes), invasive identification information, and directions on how to inspect and clean personnel items at each personnel cleaning station. Cleaning stations shall utilize secondary containment structures and shall be managed in a way that prevents debris from entering wetlands, waterways, and sensitive resources. Prior to construction, and prior to each annual post-construction monitoring event in accordance with the ECP, crews shall be notified of the locations of personnel cleaning stations.

88. Prior to beginning the Project, and prior to each annual post-construction monitoring event in accordance with the ECP, vehicle and equipment cleaning stations shall be set up, used by all site personnel, and maintained at entry/exit locations (or along the construction corridor, depending on the site and construction sequencing) for Project areas located within areas of large reed canary grass populations, areas of known state restricted and/or prohibited invasive species, and as directed by the IEMs. You shall provide and maintain cleaning tools and equipment, invasive identification information, and directions on how to inspect and clean vehicles and equipment at each cleaning station. Cleaning stations shall utilize secondary containment structures and be managed in a way that prevents debris from entering wetlands, waterways, and sensitive resources. Prior to construction, and prior to each annual post-construction monitoring event in accordance with the ECP, crews shall be notified of the locations of vehicle/equipment cleaning stations.
89. You shall perform visual inspections on all tools, vehicles, and equipment entering and leaving the Project during all phases of the Project, including post-construction monitoring events, to ensure no vegetation, soil, or debris are present. If visible vegetation, soil, debris is present, you shall clean the tools, vehicles, and equipment using scraping, brushing, compressed air, water, or similar method. The vegetation, soil, and debris shall be properly contained upon cleaning and prevented from entering wetlands, waterways, and sensitive resources.
90. Construction mats shall be free of invasive species prior to arriving on site.
91. You shall utilize matting for construction and vehicle access in known areas of reed canary grass, based on information collected during Enbridge's invasive species surveys, wetland delineations, and on-site observations pre-construction and during construction. In areas of woody vegetation, matting shall be installed upon clearing. The matting used in areas of reed canary grass populations shall not be re-used as part of the Project, even if decontamination protocols are implemented.
92. All construction matting shall be inspected following removal and cleaned with compressed air, water, scraping, and/or brushing to remove soil and vegetation debris prior to leaving the site.
93. Equipment and machinery exposed to invasive species shall be properly decontaminated as specified in the ECP's Invasive and Noxious Species Management Plan prior to moving from one area of the Project that contains an invasive species to another area of the Project that does not contain those invasive species, including during post-construction monitoring events.
94. You shall not clean equipment, vehicles, or trailers in or near wetlands, unless within a designated cleaning station/area with secondary containment. You shall not clean equipment, vehicles, or trailers in or near waterways.

95. You shall minimize soil disturbance as specified in the ECP to reduce the potential for invasive plant introduction and colonization.
96. You shall stabilize disturbed soil in a timely manner as specified in the ECP to reduce the potential for the establishment of invasive species.
97. You shall manage stockpiles of materials to limit the spread of invasive species (e.g., covering exposed piles of soil or construction materials with plastic sheeting, planting cover crops to prevent the establishment of invasive species, etc.). You shall treat any infestations of invasive species promptly before the plants set seed.
98. You shall properly dispose of any construction debris that contains or harbors invasive species.
99. You shall avoid the off-site transport of invasives and materials that may contain invasives. If you must transport material that may contain invasive species or materials containing invasives, you shall manage the load to limit the spread of invasive species and bring it to a designated area for appropriate disposal.
100. If moving timber products to or from sites, you shall comply with Department's Forestry Division restrictions for invasive insects and diseases. Best Management Practices for Invasive Species can be found here: <https://councilonforestry.wi.gov/Pages/InvasiveSpecies/Forestry.aspx>.
101. You shall prevent and reduce the spread of Emerald Ash Borer from Project activities by complying with best management practices found here: https://dnr.wisconsin.gov/sites/default/files/topic/Invasives/bmp_EAB.pdf.
102. To prevent the spread of non-native plant species, you shall utilize seed providers who can guarantee their seed is free of invasives.
103. You shall monitor for the introduction, spread, and increase in invasive plant species as a result of Project activities for each wetland within the Project's permanent ROW, TWSs, ATWSs, and the access roads needed to access those sites. You shall monitor annually for a minimum of six consecutive years post-construction and until performance standards are met.
104. You shall monitor for the introduction, spread, and increase in invasive plant species as a result of Project activities for each wetland within the Project's valve sites, pipeyards, and access roads that will not be used to access permanent ROW, TWSs, or ATWSs during post-construction monitoring. You shall monitor annually for a minimum of 3 consecutive years post-construction and until performance standards are met.
105. If invasive plant species are newly observed in wetlands as a result of the Project, you shall manage, monitor, treat, and/or control the invasive species to eradicate the species and prevent its spread.
106. If an increase of invasive plant species is observed in wetlands as a result of the Project, you shall manage, monitor, treat, and/or control the invasive species to restore the presence to pre-construction conditions or better, depending on site conditions and as approved by the Department.
107. You shall provide invasive species reports annually to the Department that include the following:

- i. Narrative summary of post-construction invasive species monitoring from that year.
- ii. Updated table(s) that documents invasive species data from post-construction monitoring (e.g. species, abundance, cover, observations, etc.), including any treatment measures that were conducted by Enbridge. Pre-construction invasive data should also be included in the table(s).
- iii. Descriptions, locations, and photos of any newly observed invasive species that were not identified pre-construction.
- iv. Updates to the Documented Invasive Species Location Maps (see Attachment C of the Invasive Species Management Plan of the ECP) incorporating invasive species data from post-construction monitoring.
- v. Site-specific plans proposing treatment and/or control measures that will be implemented by Enbridge in order to meet the performance standards identified in the ECP's Invasive Species Management, Wetland and Waterway Restoration and Post-Construction Monitoring Plan, and this WQC. Site-specific proposals shall be reviewed and approved by the Department prior to beginning post-construction monitoring activities for the following year.

Justification: Pursuant to s. NR 103.03(2)(f)3., Wis. Adm Code, water quality certification must prevent conditions conducive to the establishment or proliferation of nuisance organisms to protect existing wetland habitat and ecosystems. Invasive species threaten the "protection and propagation of a balanced fish and other aquatic life community" under the "Fish and other aquatic life" designated use in s. NR 102.04(3), Wis. Adm. Code.

X. Preventive Measures.

108. You shall notify the Department via email at DNROfficeofEnergy@wisconsin.gov within 24 hours of any spills of any hazardous materials affecting wetlands and/or waterways. Spills of hazardous or toxic materials that pose a threat to human health, safety, or the environment shall be cleaned up to the greatest extent practicable. All reportable spills shall also be reported immediately to the Department using the 24-hour toll free hot line, 1-800-943-0003. For more information, please visit the spills program web page: <https://dnr.wisconsin.gov/topic/Spills>.
109. You shall follow field protocols for activities in proximity to known landfills and any solid waste encountered shall be disposed of in accordance with NR 500, Wis. Adm. Code, solid waste regulations.
110. Electrical, fueling, and waste handling facilities shall comply with applicable safety and environmental protection regulations.
111. You shall use tarps or similar material underneath areas of pipeline field coating to capture and contain drips/overspray during application on the pipeline.

112. Herbicide used within or adjacent to wetlands, waterways, and sensitive resources shall follow manufacturer's directions and comply with state and federal regulations.
113. You shall only use drilling mud and drilling mud additives that have been approved for use by the Department as specified in the ECP.
114. No grading or trenching shall occur in waterways or wetlands along the bore drill path, unless required to safely install a temporary bridge; required for the sole purpose of containing an inadvertent release (IR) of drilling mud from reaching wetlands, waterways, and/or sensitive resources; or to facilitate the immediate removal of any such drilling mud. Grading or trenching within wetlands or waterways along the bore drill path shall only occur when the Department determines it is not practicable to use alternative containment methods that do not require grading and trenching. Erosion and sediment control practices shall be used to reduce impacts to adjacent portions of wetlands and waterways.
115. You shall not discharge drilling mud into wetlands, waterways, or sensitive areas.
116. You shall monitor returns continuously during drilling operations. If a rig operator identifies a sustained loss in drilling fluid pressure or a loss of circulation during horizontal directional drilling (HDD) or direct bore operations, you shall immediately cease drilling operations, shut the drilling mud pump down, and dispatch experienced observers to monitor the area in and around the drill path for signs of an Incidental Release (IR) of drilling fluid to the ground surface, wetland, or waterbody. You shall notify the IEM that an IR may have occurred and follow the procedures in the ECP's Site-Specific IR Plans for that crossing.
117. If an IR of drilling mud to uplands occurs during the Project's HDD or direct bore construction activities, you shall immediately contain the drilling mud to prevent discharge to waterways or wetlands and report the discharge to the IEM. You shall remove the discharge as thoroughly as possible and dispose of the discharged drilling mud at an authorized location before demobilizing the drill rig.
118. If an IR of drilling mud to waterways or wetlands occurs during the Project's HDD or direct bore construction activities, you shall immediately cease the drilling operations, including pump shut down, report the discharge to the IEM and regulatory agencies, and contain the discharge. You shall remove the discharge as thoroughly as possible and dispose of the discharged drilling mud at an authorized location before demobilizing the drill rig.
119. For all of the Project's HDD or direct bore stream and wetland crossings, within 30 days of completion of each HDD crossing, you shall provide a written summary report to the Department describing the success of that HDD crossing; the degree to which there were any IRs of drilling mud; the efforts employed to report, contain, and recover any IR of drilling mud; and information related to where the drilling mud was disposed.
120. You shall not clear a width of more than 30-feet of vegetation along the permanent corridor in wetlands and waterways as part of the boring drill path, unless approved in writing by the Department. This excludes the Tyler Forks waterway crossing (WBIC 2923100) near MP 34.04, which shall be limited to 50-feet of vegetation clearing within the permanent corridor as part of the boring drill path.
121. You shall hold HDD Pre-Construction meetings prior to beginning drilling operations. The meeting shall include, at minimum, representatives from the Project owner, general contractor, drill contractor, the

owner's environmental staff or consultant, and the IEM(s) assigned to the HDD crew for each drill path. Each meeting may address one or more drill paths, but for each proposed drill path addressed by the meeting the following information shall be discussed:

- i. Location and required protections for Area of Special Natural Resource Interest (ASNRI) waters and wetlands in ASNRI;
 - ii. Workspace boundaries and restricted areas;
 - iii. Mapped floodways and 100-year flood boundaries;
 - iv. Timing restrictions;
 - v. Seasonal considerations;
 - vi. Permit compliance;
 - vii. Erosion and sediment control practices;
 - viii. HDD Summary, Spill Plan, and IR Plan;
 - ix. Monitoring, recordkeeping and reporting;
 - x. Chain of command protocol; and
 - xi. Restoration and final stabilization
122. For each drill path, the HDD operator, HDD locator, an Enbridge representative, and the IEM(s) assigned to the HDD crew shall physically walk or observe the HDD site prior to starting the drill. Any remote sensing equipment used to monitor for IRs in less accessible portions of the drill path shall be tested as part of the observation. During the observation, you shall identify potential obstacles and note the location of site-specific risk factors, environmental conditions, and water resources within the HDD site. For projects with only small drill paths, you shall discuss the IR Plan with the IEM. If erosion and sediment control practices have been installed prior to the observation, you shall confirm that practices are in operational condition. You shall identify situations where a boat and/or drone is necessary to monitor for and respond to IRs. You shall modify the IR Plan to include additional equipment and supplies needed for monitoring and response as needed based on site conditions.
123. You shall conduct visual inspections of the drilling path at least every 4 hours. During pilot hole drilling, only the portion of the drilling path between the entry and the estimated location of the drill head is required to be inspected visually. At least once per day the inspection shall be conducted by Enbridge's construction or environmental inspector. You shall maintain a record of monitoring and inspections that includes the name of the inspector, the date, the time, the stage of installation (pilot hole, reaming, or pullback), and any observations that were made along with the location of the observation. You shall maintain documentation for the duration of the Project and provide it to regulatory authorities upon request.
124. You shall document and report to the IEMs and Department Spills Hotline (1-800-943-0003) within 24-hours of any drilling fluid losses or gains that are estimated to exceed the lesser of 50% of the drill path volume

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or 500 gallons. If fluid loss is recovered within a few hours due to adjustments to drilling operations, only the unrecoverable amount is considered when assessing if a substantial fluid reduction has occurred.

125. You shall notify the Department Spills Hotline (1-800-943-0003) and IEMs immediately if drilling fluid enters a designated ASNRI waterway.
126. You shall keep the Written Plans (HDD Summary, Spill Plan, and Inadvertent Release Plan) described in the Department's HDD Technical Standard 1072 HDD (https://dnr.wisconsin.gov/sites/default/files/topic/Stormwater/1072_HorizDirectionalDrilling_10-2022.pdf) on-site or accessible from the site during construction.
127. You shall have vacuum trucks readily available on site at all times during boring operations. If more than one HDD or direct bore is occurring simultaneously, there shall be at least one vacuum truck available per drill path.
128. You shall have spill and IR response materials as specified in the ECP at the entry and exit workspaces prior to beginning HDD or direct bore installation.
129. You shall replenish materials used for spill and IR response before proceeding with HDD installation.
130. If used, you shall provide drill fluid containment pits with sufficient capacity to avoid overflowing during rain events.
131. You shall dispose of drilling fluid and cuttings in compliance with state and local requirements in locations identified in advance and provided to the Department.
132. You shall submit drilling fluid additive information, as required under a Department WPDES permit, for HDD fluid that is disposed of in locations other than a licensed landfill. HDD fluid shall be solidified prior to disposal in a licensed landfill.
133. You shall install trench breakers capable of restricting the horizontal movement of water as shown on the erosion control plan used to obtain Department Construction Site Storm Water Permit coverage to minimize the potential for subsurface drainage along the backfilled trench in bedrock areas. You shall install trench breakers to minimize the potential for subsurface drainage along the backfilled trench.

Justification: Pursuant to s. NR 102.04(1), Wis. Adm. Code, substances that will cause objectionable deposits on the shore or in the bed of a body of water may not be present in amounts that interfere with public rights in water of the state. Pursuant to s. NR 103.03(2)(a), Wis. Adm. Code, liquids, fill, or other solids or gas may not be present in amounts that may cause significant adverse impacts to wetlands. Pursuant to ss. NR 103.03(2)(e) and (f), hydrological conditions necessary to support the biological and physical characteristics naturally present in wetlands shall be maintained, and existing habitats and the populations of wetland animals and vegetation shall be protected. These conditions ensure construction operation, including for HDD, will not result in a violation of state water quality standards under ss. NR 103.03, 102.04 and 102.06, Wis. Adm. Code.

XI. Dewatering.

134. Unless specified and approved by the Department, dewatering of excavated work areas shall be conducted in accordance with the standards of the applicable general permit under WPDES and Department-approved Technical Standards.
135. Where dewatering eventually discharges to wetlands or waterways, if the discharge is cloudy or has field turbidity conditions exceeding 12 NTU or 40 mg/L, you shall immediately stop dewatering and contact the IEM to determine an adequate dewatering method. At no time shall the dewatering discharge cause a violation of Bad River Band of Lake Superior Chippewa water quality standards at the point that it enters the Reservation of the Bad River Band of Lake Superior Chippewa. You shall monitor dewatering discharge at a rate that is sufficient to meet the turbidity standards at all times.
136. You shall not discharge at a rate or volume that will increase erosion in the receiving water.
137. You shall identify effective water applied additives, as described in Technical Standard 1051, prior to initiating dewatering activities in areas where the dewatering discharge may reach surface water after treatment. Jar testing of onsite water samples shall be used to identify an additive that may be used in combination with dewatering bags or sediment basins to meet the discharge standards described in Condition 135. You shall use additives for which the Department has established maximum usage rates. A list of previously reviewed additives with maximum usage rates is available at <https://apps.dnr.wi.gov/swims/Documents/DownloadDocument?id=326415944>. You shall use additives per manufacturer recommendations but shall not exceed maximum usage rates. You shall conduct additional jar testing in areas with differing soil types. You shall maintain a log of the applied additives, including product name, date and time, location, and concentration. This shall be made available to any Department personnel upon request.
138. To the greatest extent practicable, dewatering structures shall be placed in uplands. Dewatering structures shall only be placed in wetlands when the IEM has determined it is not practicable to place dewatering structures in upland areas.
139. If dewatering structures are placed in wetlands, the IEM shall first approve the dewatering location. You shall monitor all dewatering activities in wetlands throughout the duration of dewatering. Following the completion of dewatering activities, you shall ensure no deposited or accumulated sediment from dewatering remains in wetlands.
140. Dewatering structures within and adjacent to wetlands or adjacent to waterways shall utilize secondary containment measures.
141. You shall have portable treatment systems (e.g., sand or carbon) available at the dewatering site that shall be used if the other proposed BMPs fail to adequately treat the discharge. The portable treatment systems must be sufficiently sized to treat all dewatering volume if other proposed BMPs fail.
142. Dewatering structures shall not be located on or discharge over bare or disturbed soil. Dewatering structures shall be located in either graveled areas or vegetated areas and shall discharge over densely vegetated areas.

Justification: Pursuant to s. NR 102.04(1), Wis. Adm. Code, substances that will cause objectionable deposits on the shore or in the bed of a body of water may not be present in amounts that interfere with public rights in water of the state. Pursuant to s. NR 103.03(2)(a), Wis. Adm. Code, liquids, fill, or other solids or gas may not be present in amounts that may cause significant adverse impacts to wetlands. Pursuant to ss. NR 103.03(2)(e) and (f), Wis. Adm. Code, hydrological conditions necessary to support the biological and physical characteristics naturally present in wetlands shall be maintained, and existing habitats and the populations of wetland animals and vegetation shall be protected. Controlling the quantity and quality of dewatering discharges ensure excessive sedimentation, TSS, and nutrient loadings will not result in a violation of state water quality standards under ss. NR 102.04, 102.06, and 103.03, Wis. Adm. Code. Monitoring requirements that the Department determines to be necessary may be imposed under s. NR 299.05(3)(d)2., Wis. Adm. Code.

XII. Water Quality Monitoring.

143. You shall perform water quality monitoring in accordance with the ECP's Water Quality Monitoring Plan.

Justification: Monitoring requirements that the Department determines to be necessary may be imposed under s. NR 299.05(3)(d)2., Wis. Adm. Code, and are a critical element to ensure continuing compliance with state water quality standards.

XIII. Restoration.

144. Except where permanent wetland fill material is authorized, all wetlands shall be restored to pre-existing elevations and hydrology as specified in the ECP. Preconstruction wetland elevation data shall be utilized to ensure post-construction wetland elevations are properly restored.

145. You shall restore areas of blasting in wetlands and waterways to preconstruction hydrology and elevations immediately after installation of the pipe.

146. You shall conduct wetland hydrological monitoring as described in the ECP's Wetland and Waterbody Restoration and Post-Construction Monitoring Plan and as proposed by Enbridge to the USACE. Monitoring shall be conducted until USACE has determined performance standards are met.

147. Where permanent wetland fill material is authorized, the Project shall be constructed in a manner that will maintain wetland hydrology in the remaining portions of the wetland complexes.

148. You shall implement the ECP's Wetland and Waterbody Restoration and Post-Construction Monitoring Plan. This plan incorporates native seed mix as well as bare root stock to reestablish wetland vegetation.

149. You shall conduct post-construction monitoring for each wetland within the Project's permanent ROW, TWSs, ATWSs, and the access roads needed to access those sites for a minimum of six consecutive years following construction and until performance standards are met as specified in the ECP, unless otherwise determined by the Department.

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150. You shall conduct post-construction monitoring for each wetland within the Project's valve sites, pipeyards, and access roads that will not be used to access permanent ROW, TWS, or ATWS during post-construction monitoring for a minimum of three consecutive years post-construction and until performance standards are met as specified in the ECP, unless otherwise determined by the Department.
151. You shall conduct post-construction monitoring for each PFO and PSS wetland within the Project area that was cleared outside of the permanent corridor as part of the Project in Years 9, 12, and 15 post-construction to evaluate the success of the reestablishment of woody species, as specified in the ECP's Wetland and Waterbody Restoration and Post-Construction Monitoring Plan.
152. For wetlands that had standing water at the time of initial restoration, if standing water is not observed during site stabilization monitoring, you shall seed that portion of wetland with wetland seed mix. You shall utilize the wetland seed mix described in the ECP's Wetland and Waterbody Restoration and Post-Construction Monitoring Plan.
153. A qualified wetland professional shall confirm post-construction monitoring plot locations are representative of the wetland during the initial post-construction monitoring event.
154. In addition to the performance standards specified in the ECP, you shall achieve performance standards for PFO wetlands in the TWS and ATWS that include:
- i. >70% survival of planted woody stock OR >300 live woody species per acre for ≥ 2 consecutive growing seasons;
 - ii. By year 9, >250 live woody species per acre ≥ 4.0 feet in height for ≥ 3 consecutive growing seasons after step i is met;
 - iii. By year 15, PFO wetlands shall have at least 30% non-invasive forestry canopy cover (crown cover)

If the TWSs and ATWSs of PFO wetlands are not meeting the performance standard criteria for step ii or step iii, you shall provide a management plan to the Department addressing how performance standards will be met, which may include additional plantings. The plan shall be provided to the Department for review and approval prior to implementing the plan.

155. During post-construction monitoring and site stabilization within wetlands and adjacent to waterways, you shall implement corrective actions as soon as practicable to support the restoration of wetlands. This may include minor grading, supplemental seeding or plantings, treatment/control of invasive species, removal of debris, etc., as specified in the ECP.
156. You shall use locally sourced seed mixes. If locally sourced seed mixes are not used, you shall utilize seed sources from Wisconsin, Minnesota, and/or Michigan that source the genotypes found within the Project area or the local nurseries near the Project area, unless otherwise approved by the Department.
157. Pipeline easements shall not include language that prevents waterway and wetland restoration and management activities as required by this WQC.

Justification: Pursuant to ss. NR 103.03(2)(e) and (f), Wis. Adm. Code, hydrological conditions necessary to support the biological and physical characteristics naturally present in wetlands shall be maintained, and existing habitats and the populations of wetland animals and vegetation shall be protected. Successful restoration of affected wetlands pursuant to these conditions ensures that wetland water quality standards are met.

XIV. Independent Environmental Monitor.

158. In coordination with the Department, you shall hire IEMs for the purpose of ensuring adherence to the requirements of the Department's regulatory approvals for this Project. IEMs shall be approved by the Department and shall report directly to, and be under the exclusive direction of, the Department. You shall organize at least one meeting between the Department, IEMs, and Enbridge prior to beginning clearing and construction. You shall provide a minimum of three IEMs for the Project. IEMs shall be staffed at all times Enbridge is actively working on the Project. IEMs shall be equipped the same as Enbridge's Environmental Inspectors and have access to data collection, management, reporting, and sharing software systems.

Justification: Necessary in order to allow the Department to ensure compliance with state water quality standards in chs. NR 102 and 103, Wis. Adm. Code, and to impose necessary monitoring requirements, pursuant to s. NR 299.05(3)(d)2, Wis. Adm. Code.

XV. Water Quality in Waterways

159. The construction of the new, drivable path for Bay City Creek (WBIC 2891100, near milepost 0.631) shall not result in the placement of gravel, fill, structures, or other material within wetlands or below the ordinary high water mark (OHWM).

160. You shall not straighten or change the course of any navigable waterway.

161. Prior to commencing in-water activities, you shall monitor for changes to water levels and/or flows to avoid working during high flows. You shall not begin in-water work within 24 hours of forecasted rain events exceeding ½ inch and all in-water work and restoration shall be completed prior to any such event.

162. You shall not install temporary bridges or conduct in-water work during periods of high water levels or flooding if the water level or flooding could overwhelm the proposed crossing or construction techniques.

163. For each waterway crossing, you shall have appropriate equipment available to handle anticipated flow conditions.

164. You shall allow safe portage around restricted areas of the Project area within navigable waters to anyone legally navigating the waterway. You shall install navigational warning signs for the waterways identified in the ECP.

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165. Work below the OHWM shall be completed as quickly as possible as specified in the ECP to minimize waterway disruption.
166. Activity below the OHWM shall be minimized as specified in the ECP to complete the work.
167. You shall not deposit or store any of the graded or excavated materials below the OHWM of any waterway.
168. Disturbance to the waterway banks from use of equipment and/or vehicles shall be minimized as specified in the ECP. All waterway banks shall be protected from the bank collapsing and from erosion due to equipment operation.
169. Removal of trees, shrubs, and bank vegetation shall be minimized as specified in the ECP. If woody vegetation is cleared outside of the trench line, the stumps and root structures shall remain intact.
170. Large woody debris or brush piles resulting from clearing activities shall not be deposited in waterways or floodways.
171. In-water work shall be conducted in a manner that minimizes the re-suspension of sediment as specified in the ECP.
172. Upon completion of pipeline installation, all streambed elevations shall be restored to pre-existing conditions as specified in the ECP. Preconstruction waterway bed elevations shall be determined, and data shall be utilized to ensure post-construction waterway elevations are properly restored.
173. Waterway banks shall be restored to pre-existing conditions as specified in the ECP. If pre-existing bank conditions are determined to be unstable, the banks shall be restored to stable slopes.
174. Pools, riffles, and runs shall be restored to pre-existing locations and conditions as specified in the ECP.
175. No more than 30 days after the Project is completed, you shall submit to the Department clear and labeled photographs of all restored waterway crossings. Photos shall be taken from the same general location and direction as pre-construction photos submitted with your application.
176. You shall perform macroinvertebrate sampling in accordance with the ECP's Water Quality Monitoring Plan unless modified in coordination with U.S. Environmental Protection Agency.
177. If needed to facilitate safe construction, you shall breach beaver dams in a manner that results in a slow draining of impounded water to minimize silt flushing and channel erosion downstream. Dams shall not be breached using explosives, unless approved in writing by the Department.
178. Prior to dam removal, you shall have a contingency plan in place to manage any uncontrollable flow from beaver dam removal.
179. You shall not dredge, drive on the bed, or place structures or fill below the OHWM or within wetlands as part of beaver dam removal activities, unless approved in writing by the Department.

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180. Except for the existing ford crossing at Tyler Forks near access road AR-085, you shall not drive any vehicles on the bed of any navigable waterway to cross the waterway unless approved in writing by the Department.
181. Except during dry stream bed conditions within the boundaries of the trenchline, equipment and vehicles shall not drive or operate on the bed of the waterway during pipeline installation, including bank restoration and stabilization, unless approved in writing by the Department.
182. Waterways within the Project area that do not have an existing waterway crossing (existing ford, existing culvert, TCSB) shall have signs installed on both banks alerting crews that the waterway cannot be traversed. These signs shall be installed prior to clearing activities and shall remain in place throughout all phases of construction, including restoration.
183. TCSBs shall be removed within 30 days after the TCSB is no longer needed to complete construction or site stabilization monitoring. If TCSB removal conflicts with a required fish timing restriction, the TCSB shall be removed within 30 days after fish timing restrictions cease. If TCSBs are requested to remain post-construction to conduct inspections or final site stabilization, pursuant to your Department Construction Site Storm Water Permit, you shall provide a list of proposed TCSB locations for Department approval. The TCSBs shall not remain in place past the expiration date of this permit, unless approved in writing by the Department.
184. Installation and removal of the TCSB shall be conducted in a manner that minimizes the removal of trees, shrubs, and other shoreline vegetation, as specified in the ECP.
185. Installation, removal, and use of the TCSB shall be conducted in a manner that prevents sediment and debris from entering the waterway, as specified in the ECP.
186. Appropriate barriers, as specified in the ECP, such as geotextile fabric and silt sock, shall be installed and anchored to the TCSB to prevent sediment and materials from entering the waterway during the installation, use, and removal of the TCSB.
187. Bridge approaches shall not consist of earthen material or debris. No bridge approach fill shall be placed below the OHWM of any waterway.
188. Bridge supports and headers shall be located at least three feet landward from the top of the bank.
189. The TCSB shall completely span the waterway from top of channel to top of channel with no support pilings in the waterway. This WQC does not authorize any in-stream supports for TCSBs.
190. Equipment used to install and remove TCSBs shall not enter or operate on the bed of the waterway. The equipment to install and remove TCSBs shall not disturb the bed of the waterway.
191. Grading of banks to install the TCSBs shall be minimized as specified in the ECP.
192. TCSBs shall be securely anchored to prevent them from being transported downstream during high flow conditions.

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193. You shall inspect TCSB openings for debris and obstructions weekly and within three days following any rainfall exceeding ½ inch. You shall remove any restriction of flow, and any debris shall be deposited in an upland site and out of any floodplain, wetland, or waterway.
194. TCSBs shall be monitored and maintained regularly and shall be cleaned of mud and/or debris immediately, if observed. The removal of mud and/or debris from the TCSB shall not result in a discharge into a waterway.
195. All vehicles and equipment traversing the TCSB shall be checked prior to crossing the TCSB for fluid (e.g. fuel, oil, hydraulic, coolant, etc.) leaks. If fluid leaks are observed, the leaks shall be corrected, and the equipment shall be cleaned prior to crossing the TCSB.
196. Upon removal of the TCSBs, waterway banks shall be restored to pre-existing conditions as specified in the ECP. If pre-existing bank conditions are not stable, you shall restore waterway banks to stable slopes.
197. Prior to conducting any open-cut trenching of waterways, you shall follow the high flow contingency as specified in the ECP in the event the flow bypass system would be overwhelmed by incoming flows. You shall implement the high flow contingency as specified in the event the flow bypass system is overwhelmed by incoming flows.
198. Pump intakes and discharges shall be placed to prevent the disturbance, removal, and scour of bed material.
199. Pump discharges shall utilize energy dissipation devices to prevent disturbance and scour of bed material.
200. Pump intakes and discharges shall be used in a manner that prevents impacts to aquatic organisms, wildlife, and their habitat.
201. You shall remove all work zone isolation systems and flow bypass systems gradually, in such a way that minimizes the downstream sediment impacts, as specified in the ECP.
202. You shall inspect and maintain the work zone isolation systems and flow bypass systems regularly each day they are in place.
203. Upon isolation of the waterway and/or prior to dredging, you shall visually survey the workspace for aquatic organisms (e.g., fish, mussels, turtles, crayfish). If aquatic organisms are observed, you shall immediately and safely relocate them.
204. There shall be no long-term impacts to the bed of the waterways from the placement, operation, and/or removal of the work zone isolation system and flow bypass system structures.
205. All temporary work zone isolation system and flow bypass system structures placed on the bed of the waterway shall be clean and free of debris.
206. All temporary structures placed below the OHWM shall be removed immediately upon completion of the pipeline installation.

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207. No concrete, grout, or other sealants shall be used to seal temporary cofferdams or similar structures.
208. Sheet pilings shall not be installed to a depth that would intersect known artesian aquifers based on available geotechnical information and well drilling logs. If new, discernable ground water flow is observed during or after installation of sheet piling at the existing ground level outside of the trench, it shall be reported immediately to the IEM and reported within 24 hours to the Department. You shall notify IEMs at least 24 hours in advance of sheet pile driving between MP 10 to MP 18 and MP 37 to MP 40. In these areas, the contractor shall have additional erosion and sediment control materials as specified in the ECP at the site sufficient to limit impacts from any unanticipated ground water flows.
209. Bank stabilization structures shall be installed following the design plans in the Wetland and Waterway Restoration and Post-Construction Monitoring Plan in the ECP, as conditioned in this WQC, and as approved by the Department.
210. Installation of permanent bank stabilization structures shall be completed immediately after pipe installation to minimize waterway disruption. Installation shall be completed in a way that minimizes impacts to the resource.
211. The bank stabilization installation shall follow the natural contour of the shoreline. No waterward extension of the shoreline is permitted other than what is reasonably necessary to conduct the Project and protect the existing bank.
212. The placement of soil below the OHWM shall be limited to the material required to establish biological materials.
213. All bank stabilization materials shall be clean and free of debris prior to installation.
214. The amount of dredging to install structures shall be limited to the maximum extent practicable, and the dredging shall be completed immediately after pipe installation to minimize waterway disruption.
215. For riprap installation, you shall use clean field or quarry riprap rock/stone. Rock fill shall not include concrete or reused materials. Riprap materials shall be appropriately sized.
216. All riprap placed above the OHWM shall be top dressed with a minimum of six inches of topsoil.
217. For biostabilization installation, native vegetation shall be seeded/planted above the OHWM. Vegetation, such as seeding, plant plugs, and dormant plantings shall be plant species native to the area of Wisconsin where the Project is located.
218. Except for placement of biostabilization materials, no soil or similar fill material may be placed in a wetland or below the OHWM.
219. For biostabilization and integrated stabilization installation, bank stabilization structures (such as tree limbs, branches, etc.) shall not be sourced from waterways.
220. Unless the waterway is completely dry (no standing water, no flowing water) for the entire duration of the activity below the OHWM, including accounting for rain events during construction, trenching in the

waterway shall be completed using a work zone isolation system or flow bypass system, such as a dam and pump or dam and flume technique, to isolate the in-water work zone from the waterway.

221. If a waterway is completely dry (no standing water, no flowing water) at the time of construction for work below the OHWM, you shall have work zone isolation or flow bypass system materials (such as dam and pump or dam and flume materials) on site and ready to install if conditions change during construction and standing or flowing water becomes present in the waterway.
222. Bypass flows shall be maintained in the waterway during all phases of construction.
223. You shall minimize the width of the trench through waterways as specified in the ECP. Where support is needed in the trench due to depth, soil type, or soil saturation, use of trench boxes shall be considered first. Sheet piling shall only be used where necessary for personnel safety.
224. The amount of dredging shall be limited as specified in the ECP, and the dredging shall be completed in the timeframe specified in the ECP.
225. Bed materials shall be removed by equipment that is designed to minimize the amount of sediment that can escape into the water. Equipment shall be properly sized so that excavation complies with the ECP and allows the work to be done from the banks rather than in the waterway.
226. You shall segregate the upper foot of streambed material during excavation to properly restore the bed substrate and profile.
227. Unless the pre-construction substrate is silt, backfill material of the trench shall consist of the originally removed bed material and the substrate features shall be returned to pre-construction conditions. If the existing substrate is silt, you shall backfill with clean, washed gravel, crushed stone, or clean river stone to replace the excavated material. If the stream bed in the crossing location has a unique substrate feature (i.e. cobbles, boulders, riffles, etc.), it shall be returned to preconstruction conditions.
228. Any remaining native fill that will not be used as backfill (surplus excavated material that has been displaced by the new pipeline, pipeline bedding, and pipeline installation materials) shall not be re-dispersed in the waterway or in wetlands. Any remaining native fill shall be removed from the waterway and disposed in an upland area or at an authorized facility.
229. The trench shall be backfilled no later than 48 hours after completion of pipeline installation, unless approved in writing by the Department.
230. You shall visit each waterway crossing where pipeline installation occurred via open-cut trenching (dredging) for a minimum of six consecutive years, and until performance standards are met, to confirm the successful stabilization of streambanks during high and low flow regimes and to document the physical waterbody parameters. This includes confirming general bed and bank elevations match adjacent, undisturbed areas and bed composition is restored.
231. For all dredged waterways, as part of your annual wetland and waterway post-construction monitoring report, you shall provide the Department with documentation demonstrating streambed and banks have

been restored to pre-construction conditions and elevations and slopes have not materially changed due to the construction of this Project.

Justification: Pursuant to ss. NR 102.04(1) and NR 102.06, Wis. Adm. Code, objectionable deposits and nutrients may not be present in amounts that interfere with public rights and interests or exceed state standards for surface water. In-water BMPs help ensure excessive sedimentation, TSS, and nutrient loadings will not result in a violation of state water quality standards under Ch. NR 102, Wis. Adm. Code. Physical alterations can degrade surface waters through the filling, dredging or stockpiling of materials. Pursuant to ss. NR 102.05 and NR 103.03, Wis. Adm. Codes, no waters of the state including wetlands shall be lowered in quality. To satisfy these antidegradation and water quality protection requirements, these conditions are warranted to properly demonstrate that any waterway alterations comply with these standards.

FINDINGS OF FACT

1. On February 11, 2020, Enbridge Energy, Limited Partnership (Enbridge Energy or Enbridge) applied to the Department of Natural Resources (Department) for permits to place temporary structures in navigable waterways, temporarily bridge navigable waterways, dredge navigable waterways, drive on the bed of navigable waterways, and to discharge fill in wetlands listed in Permit Table 1 for the purpose of relocating 41.1 miles of 30-inch diameter crude petroleum and natural gas liquids (NGLs) pipeline (known as "Line 5"), collectively referred to as the "Line 5 Wisconsin Segment Relocation Project," or the "Project."
2. The Project is located in Township 45 North, Range 1 West, Sections 5, 6, 8, 18; Township 45 North, Range 2 West, Sections 1, 2, 13, 14, 22, 23, 27, 28, 29, 30, 31, 32, and 33; Township 45 North, Range 3 West, Sections 6, 7, 8, 9, 14, 15, 16, 22, 23, 24, 25, and 36; Township 45 North, Range 4 West, Sections 1, 2; Township 46 North, Range 1 West, Sections 3, 4, 10, 15, 16, 17, 20, 21, 22, 27, 28, 29, 32, and 33; Township 46 North, Range 4 West, Sections 5, 6, 7, 8, 17, 18, 20, 27, 28, 29, 34, and 35; Township 47 North, Range 1 West, Sections 33, 34, and 35; Township 47 North, Range 4 West, Sections 3, 8, 17, 20, 29, and 32; Township 47 North, Range 5 West, Sections 8 and 10; Township 48 North, Range 4 West, Section 34.
3. The Project will cross the City of Ashland, City of Mellen, Town of Ashland, Town of Gingles, Town of Marengo, Town of Morse, and Town of White River in Ashland County; Town of Anderson, Town of Gurney, and Town of Saxon in Iron County; and Town of Eileen in Bayfield County.
4. Enbridge owns and operates the 645-mile-long Line 5 pipeline, which became operational in 1953. Line 5 traverses northern Wisconsin and the Upper and Lower Peninsulas of Michigan before reaching its terminus at Sarnia, Ontario in Canada. Line 5 currently crosses approximately 12 miles of Bad River Band of Lake Superior Chippewa Reservation land.
5. The Project involves the relocation of approximately 20 miles of existing Line 5 pipeline with 41.1 miles of new 30-inch diameter pipeline and 10 new mainline block valves outside of the Bad River Band of Lake Superior Chippewa Reservation. Enbridge proposes to continue transporting crude oil and NGLs through its Line 5 pipeline, while decommissioning the portion of pipeline that crosses the Bad River Band of Lake Superior Chippewa Reservation.

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6. The Department considers the basic purpose of the Project to be continuing the transport of crude oil and natural gas liquids (NGLs) through Line 5 to Enbridge's existing delivery locations in approximately the same capacity as the existing line.
7. The proposed location of the Project is located within the Fish Creek-Frontal Chequamegon Bay (HUC 0401030111), White River (HUC 0401030206), Marengo River (HUC 0401030204), Headwaters Bad River (HUC 0401030203), Tyler Forks (HUC 0401030202), Potato River (HUC 0401030205), and Bad River-Frontal Lake Superior (HUC 0401030207) watersheds.
8. The Department had numerous pre-application and post-application meetings and discussions with Enbridge to address waterway, wetland, and listed species regulations and standards.
9. The Department provided Enbridge with information relative to Department authorities, the need to complete an Environmental Impact Statement, the need to avoid and minimize wetland impacts, appropriately limit waterway impacts, comply with protections for endangered and threatened species and habitats, and other areas of concern as part of a pre-application meeting on December 17, 2019.
10. The Department received an Environmental Impact Report (EIR) from Enbridge with their permit application materials in February 2020 providing a description of the proposed Project and Enbridge's analysis of the potential environmental effects of the proposals. In August 2020, Enbridge submitted a Revised Environmental Impact Report, as part of its application for Department waterway and wetland permits for the Project.
11. Section NR 150.20, Wis. Admin. Code, establishes procedures to fulfill the requirements of s. 1.11(2)(c), Wis. Stats., setting minimum requirements for Wisconsin Environmental Policy Act (WEPA) compliance. The Department followed the EIS process as outlined under s. NR 150.30, Wis. Admin. Code, pursuant to s. NR 150.20 (4)(b), Wis. Admin. Code.
12. The Department issued a notice of pending application/public hearing (NOPA), dated June 8, 2020. The NOPA indicated the Project's application for waterway and wetland permits was considered complete. The NOPA also indicated the Department scheduled a virtual, public informational hearing and Environmental Impact Statement (EIS) scoping meeting on July 1, 2020.
13. By requirement of the Department, Enbridge published the notice as a Class 1 Notice in the Ashland Daily Press, Glidden Enterprise, Mellen Weekly Record, Iron County Miner. Enbridge was also required to mail the notice to all affected and abutting landowners and interested parties.
14. On July 1, 2020, the Department held a virtual public informational hearing and EIS scoping meeting. During the public hearing, the Department received comments on the Project waterway and wetland permit application and comments on the draft EIS for the Project. In addition to oral testimony received at the meeting, the Department received over 2,100 written comments between June 8 and July 11, 2020. Many of the comments received during the public hearing and comment period concerned the completeness of Enbridge's pending waterway and wetland permit application and required language in the public notice regarding the tentative determination to approve with modifications.
15. The scope of the EIS analysis was determined based on comments received during Public Scoping and in consultation with tribal governments and federal agencies.

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16. Between August 2020 and January 2021, the Department held a series of technical meetings with staff from the Bad River Band of Lake Superior Chippewa, Red Cliff Band of Lake Superior Chippewa, Lac du Flambeau Band of Lake Superior Chippewa, and the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) to share information and address tribal comments on the Draft EIS.
17. Between August 2020 and October 2020, the Department and Bad River Band of Lake Superior Chippewa held three government to government consultation meetings. In September 2020, the Department and Red Cliff Band of Lake Superior Chippewa held one government to government consultation meeting.
18. The Department made Information Requests to Enbridge to provide additional information on November 3, 2020, February 1, 2021, September 1, 2021, and October 29, 2021.
19. On Dec. 16, 2021, the Department posted the Draft EIS on the Department's internet site and initiated a public comment period.
20. On Feb. 2, 2022, the DNR held a virtual Public Hearing on the Draft EIS. Over 160 individuals testified during the hearing. Public statements made during the hearing were recorded. In addition, written comments were received at the hearing, via US Mail, and via email. The public comment period concluded on April 15, 2022. The Department received more than 32,000 written comments on the Draft EIS during the public comment period. Comments received were both in support and opposition to the proposed project. Comments concerned the completeness and accuracy of the Draft EIS, impacts to the Bad River watershed, long-term impacts to wetlands, the potential impacts from a petroleum release or spill, impacts to wildlife, and impacts to groundwater, among other topics. As a component of this permit decision, the Department has considered public comments relevant to the Department's waterway and wetland jurisdiction and standards.
21. The Department reviewed information from Enbridge's waterway and wetland permit application, subsequent data request responses, scoping comments, comments on the Draft EIS, comments from technical meetings with government and tribal representatives, maps, GIS data, aerial imagery, field visits, and information received from Department program staff to develop a Final EIS. The Final EIS considered a broad range of ecological and socioeconomic impacts that could occur as a result of the construction and operation of the Project, including impacts to natural resource areas, cultural resources, archaeological resources, aesthetics, recreation, endangered resources, as well as impacts from invasive species, oil spills, and cumulative impacts. The Final EIS was issued September 6, 2024, and is available, along with the Department's WEPA Compliance Determination, on the Department's website at: <https://dnr.wisconsin.gov/topic/EIA/Enbridge.html>.
22. Enbridge filed an application with the Department for a Wisconsin Pollution Discharge Elimination System (WPDES) Permit for Construction Site Storm Water. The WPDES Construction Site Storm Water permitting decision can be found under Docket # SW-GP-NO-2020-2-X09-23T11-31-30.
23. The U.S. Department of Transportation's Petroleum Hazardous Material Safety Administration (PHMSA) regulates pipeline operations and safety. No state or federal agency has general approval authority over the need for, or the siting of, liquid petroleum pipelines, with the exception of pipelines crossing state or federal lands. The Department does not have the authority to regulate the amount of material flowing in a pipeline. The Department does not have general regulatory authority over the operation of liquid petroleum pipelines.

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24. Private pipeline companies determine possible routes for new or relocated pipelines; acquire the rights-of-way (ROWs) to build, operate and maintain the lines; engineer the actual system designs; and construct the lines.

25. Enbridge identified and evaluated several alternatives as part of its proposed pipeline relocation project. Enbridge evaluated and presented its proposed Project and four route alternatives (RA-01, RA-02, RA-03, No Action) to the Department. Enbridge's evaluations were based on its stated approach of minimizing the length of the pipeline to the extent practicable, while also minimizing the environmental impacts to natural and cultural resources. The Department analyzed the effects of four alternative Line 5 relocation routes considered by Enbridge and No-Build alternatives:

○ RA-01

(a) RA-01 crosses the same watersheds as proposed Project but does not extend into the Fish Creek watershed. RA-01 is approximately 9.7 miles shorter than the proposed Project. RA-01 crosses approximately 0.5 miles of state-owned Copper Falls State Park (CFSP), including a portion listed on the National Register of Historic Places and the Wisconsin Register of Historic Places and a portion designated by the Department as Area of Special Natural Resource Interest (ASNRI) and State Natural Area (SNA). RA-01 has the potential to impact approximately 141.5 fewer acres for construction, requiring approximately 74.8 fewer acres of forest clearing, would cross approximately 13 fewer waterways, and would cross approximately 12.6 more acres of wetland than the proposed Project.

(b) RA-01 meets the project objectives and need and is a technically and economically feasible alternative. Even though less expensive, route RA-01 is more environmentally damaging than the proposed route. Additionally, RA-01 introduces additional environmental impacts to state owned lands that the proposed route avoids and is in closer proximity to the Bad River Band of Lake Superior Chippewa Reservation.

(c) During its review of Enbridge's CWA permit application, the USACE requested Enbridge evaluate minor variants of RA-01 route (RA-01A and RA-01B) that would reduce the effects on public lands and potentially reduce the overall project length and associated environmental disturbance.

- RA-01A would be approximately 4.3 miles shorter than the proposed Project. RA-01A crosses approximately 13 fewer waterways and crosses approximately 15.3 acres more of wetland than the proposed Project.

- RA-01B would be approximately 3.1 miles shorter than the proposed Project. RA-01B crosses approximately 8 fewer waterways and crosses approximately 27.9 acres more of wetland than the proposed Project.

The USACE and Department evaluated the additional information and concluded that the variants would be closer to the Bad River Band of Lake Superior Chippewa Reservation, result in greater impacts to wetlands, increase forest clearing, and did not convey an environmental advantage over the proposed Project.

- RA-02
 - (a)** RA-02 crosses the same watersheds as the selected route. RA-02 is approximately 16.9 miles longer than the proposed Project but does not cross DNR-owned Copper Falls State Park. RA-02 has the potential to impact approximately 245.7 additional acres for construction, requiring approximately 207.6 additional acres of forest clearing, would cross approximately 19 more waterways, and would cross approximately 33.7 more acres of wetland than the proposed Project.
 - (b)** RA-02 would meet the project objectives and need and would be a technically feasible alternative. The RA-02 route would be more expensive and is more environmentally damaging than the proposed Project.
- RA-03
 - (a)** RA-03 is outside of the Bad River watershed, but would be located within the Montreal River, Bois Brule River, and Iron River watersheds of the Lake Superior Basin, the East Fork Chippewa River and West Fork Chippewa River watersheds of the Upper Chippewa River Basin, and the Upper Namekagon River, Totagatic River, Upper St. Croix and Eau Claire Rivers watersheds of the St. Croix River Basin. RA-03 is approximately 60.5 miles longer than the proposed Project. RA-03 crosses the Island Lake Hemlocks SNA and the Namekagon River, which is a Wild and Scenic River. RA-03 has the potential to impact approximately 878.9 additional acres for construction, requiring approximately 711.2 additional acres of forest clearing, would cross approximately 8 fewer waterways, and would cross approximately 319.7 more acres of wetland than the proposed Project.
 - (b)** RA-03 meets the project objectives and need and is a technically feasible alternative. The RA-03 route would be more expensive due to the longer route length and RA-03 is more environmentally damaging than the selected route.
- No-Build Alternatives
 - (a)** The continued operation of the existing Line 5 segment that crosses the Bad River Band of Lake Superior Chippewa Reservation land would not result in regulated wetland or waterway activities. However, this alternative is not reasonably available and capable of being implemented, as Enbridge's easements within the Bad River Band of Lake Superior Chippewa Reservation have expired and Enbridge was not granted authorization to continue to site the line through the reservation.
 - (b)** Constructing an all-Canadian pipeline or using existing Canadian pipelines to replace Line 5 would not result in regulated wetland or waterway impacts within Wisconsin. Enbridge determined this alternative infeasible. This alternative is not in proximity to the Project and would not be consistent with the scope of the Project or its purpose of continuing to transport crude oil and NGLs through Enbridge's Line 5 pipeline.
 - (c)** Switching to other existing pipelines to carry Line 5 products may avoid regulated wetland and waterway impacts, except where needed to upgrade or alter existing pipelines. This alternative presents logistical and technological challenges and would not be located in proximity to the Project. This alternative is considered infeasible because there are no other existing Enbridge pipelines that are geographically situated to serve all the receipt and delivery points that are served by Line 5's existing routing from Superior, through the

Upper and Lower Peninsulas of Michigan, to Sarnia. There are also capacity constraints on existing pipelines. Existing Enbridge pipelines are limited to transporting either NGLs or crude oil, but not both; Line 5 is unique in that the pipeline has been installed with equipment to allow the transport of both crude oil and NGLs. The use of existing pipelines to transport Line 5 product would interrupt or otherwise deter the transportation of the original product in order to instead transport Line 5 product. This alternative would not be consistent with the scope of the Project or its purpose of continuing to transport crude oil and NGLs through Enbridge's Line 5 pipeline. This alternative is also impracticable when considering cost, logistics, and available technology.

- (d) Transporting Line 5 products by other methods, such as rail cars, tanker trucks, or barges may avoid regulated wetland and waterway impacts. At present, there are no existing railroad routes that connect Enbridge's Superior Terminal to delivery locations; the use of barges would be dependent on seasonal and weather conditions; and the cost, logistics, and capacities utilizing alternative methods of transport would not be practicable. This alternative would not be consistent with the scope of the Project or its purpose of continuing to transport crude oil and NGLs through Enbridge's Line 5 pipeline.
- (e) Entirely replacing Line 5 products with alternative energies or entirely offsetting the demand for Line 5 products through conservation and efficiency may avoid regulated wetland and waterway impacts. This alternative would not be consistent with the scope of the Project or its purpose of continuing to transport crude oil and NGLs through Enbridge's Line 5 pipeline to existing delivery points.
- (f) A No-Build alternative which would discontinue the transport of oil and NGLs through Line 5 would avoid regulated wetland and waterway impacts. This alternative would not be consistent with the scope of the Project or its purpose of continuing to transport crude oil and NGLs through its Line 5 pipeline to existing delivery points.

26. The Project includes a new, permanent pipeline corridor that will parallel an existing overhead, electrical transmission corridor for the first approximate 3.6 miles. Most of the remaining new, permanent pipeline corridor will not be co-located or adjacent to existing utility corridors. There are no discernable linear utility corridors that the pipeline could follow along the eastern portion of the route.
27. Enbridge conducted wetland delineations during the growing seasons in 2019 and 2020. During the wetland delineations, Enbridge also conducted WDNR Wetland Rapid Assessment Methodologies (WRAMs). This evaluation is a standardized approach to characterize wetland condition and functional value that relies on observable characteristics by trained professionals. Approximately 50 percent of the wetlands Enbridge delineated in 2019 were completed between October 1 and October 19. In the northern part of the state where the Project is located, vegetation may be senesced or dead at this time of year and floristic conditions can be difficult to fully assess during this period.
28. The Department reviewed a subset of randomly selected wetland WRAMs in greater detail. Enbridge assigned an overall functional value to each wetland based on a compilation of the ratings from the individual functional value categories. The Department's standard WRAM process does not recommend a single, overall WRAM rating approach, but instead assigns individual ratings to each distinct functional value category. Enbridge assessed approximately 26.0 acres of wetland as high functional value, approximately 57.1 acres of medium

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functional value, approximately 10.1 acres as low functional value, and approximately 8.0 acres of low-invasive functional value.

29. In between August 2022 and September 2022, Enbridge performed timed meander surveys for the subset of wetlands determined to be of medium to high overall functional value from the delineations completed in 2019-2020. During the timed meander surveys, Enbridge applied cover classes instead of absolute cover levels, as described in the Department's Timed Meander Survey protocol. Enbridge also used the midpoint of each cover class to assign coverage values in the Floristic Quality Assessment Calculators.
30. The Department completed field investigations throughout the proposed Project area in September 2020, August 2021, March 2023, June 2023, July 2023, and October 2023, to independently evaluate wetland boundaries, wetland quality and functions, waterway characteristics, potential geohazards, and potential environmental impacts from the proposed Project. Department fisheries staff completed field surveys within portions of the Project area in July 2023 and August 2023.
31. Enbridge delineated and identified approximately 101.1 acres of wetlands within the Project Area. Of the 101.1 acres of wetlands, approximately 28.1 acres were identified as palustrine emergent (PEM), 10.2 acres were palustrine scrub-shrub (PSS), and 62.8 acres were palustrine forested (PFO). The most common wetland plant communities were hardwood swamp (58.9 acres), fresh (wet) meadow (native subtype, 24.7 acres), and shrub-carr (7.0 acres).
32. Based on WRAM assessments conducted by Enbridge, almost half of the PFO and PSS wetlands that will be permanently cleared provide a "High" wildlife habitat functional value and "High" floristic quality. Almost one quarter of the wetlands provide "High" or "Exceptional" flood and stormwater storage, water quality protection, and ground water processes functional values. Based on Enbridge's timed-meander survey, approximately two-thirds of the PFO wetlands that will be permanently cleared by the proposed project will have a known Floristic Quality Index rating of "High" or "Exceptional." Of the wetlands surveyed during the timed meander surveys, 55% indicated an "Exceptional" Coefficient of Conservatism (mean C-value) rating and 27% indicated a "High" mean C-value rating.
33. Different methodologies used to evaluate wetland condition and functional value can and do produce differing characterization for the same wetlands. To avoid underestimating the functional value of wetlands when reviewing results from these methodologies, the Department selected the highest documented functional value assessment or floristic value calculation as representative of the accurate wetland conditions.
34. The Project will result in in approximately 0.023 acres (998.2 square feet) of permanent wetland fill from the construction of new, permanent access roads to mainline valve sites (MLVs) 1, 4, and 5. The wetland at MLV 1 is described as a lower quality Fresh (Wet) Meadow located within actively pastured farmland. The wetland at MLV 4 is described as a lower quality Fresh (Wet) Meadow located within a roadside ditch surrounded by a road and agricultural land; the wetland is dominated by native vegetation. The wetlands at MLV5 are described as medium quality Fresh (Wet) Meadow and Shrub-Carr located within a depression of a hay field that is regularly maintained and adjacent to a gravel road; the wetlands are dominated by native vegetation, with little invasive plant species.
35. The construction area for the Project includes the permanent ROW, temporary workspace (TWS), and additional temporary workspaces (ATWS). The permanent ROW will be used for pipeline installation and maintained after construction for inspection and maintenance. The TWS is immediately adjacent to the

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permanent ROW and is needed to facilitate construction of the pipeline, such as spoil storage and equipment operation. The ATWS are near or adjacent to the permanent ROW and TWS and are needed at discreet locations for additional project components, such as equipment staging and material fabrication.

36. The Project will result in 101.1 acres of direct, temporary wetland impact from clearing and pipeline installation. Direct Project-related disturbance within wetlands will occur throughout the construction area, along access roads, and at valve sites. Project activities that will result in direct impacts to wetlands during construction include wetland conversion from forested and scrub-shrub wetlands to emergent wetlands, grading, trenching, blasting, placement of construction matting, placement and storage of temporary spoils, and equipment/vehicle access.
37. Of the 101.1 acres of wetlands that will be temporarily impacted by the project, approximately 6.3 acres will be disturbed as a result of site preparation associated with trenchless installation (horizontal directional drill (HDD) or direct bore), 76.4 acres will be disturbed via open-cut trenching, and 2.6 acres will be blasted to accommodate pipeline installation. The remaining wetlands would be impacted from construction activities within the TWS and ATWS.
38. A permanent, 50-foot pipeline ROW corridor (30-foot corridor for HDD crossings) will be maintained in wetlands as part of the project along the pipeline. Approximately 30.0 acres of PFO wetland and 3.9 acres of PSS wetland will be permanently converted and maintained as PEM wetland. Enbridge proposes to mitigate for the permanent loss of wetland functional values through Wetland Compensatory Mitigation.
39. Outside of the permanent corridor, approximately 32.8 acres of PFO wetland and 6.3 acres of PSS wetland will be temporarily converted to PEM wetland in the TWS and ATWS as part of construction. These PFO and PSS wetlands will be restored by a combination of natural reforestation (i.e., stump sprouting, root sprouting, and natural recruitment) and supplemental bare root stock plantings. These restoration methods are designed to restore shrub and forested wetlands in the temporary workspace to their pre-construction wetland types. Full restoration of these wetlands will likely require at least a decade, and in some circumstances multiple decades, depending on the age and establishment of the shrub and forested systems pre-construction. The time between conversion and restoration to pre-construction conditions will result in a temporal loss of wetland functional values. Enbridge proposes to mitigate for the temporal loss of wetland functions through Wetland Compensatory Mitigation.
40. There is an abundance of wetlands that are designated as wetlands in Areas of Special Natural Resource Interest (ASNRI) in the Project area that will be impacted by construction. These include wetlands in proximity to, or have a direct hydrologic connection to, cold water communities as defined in s. NR 102.04 (3) (a), including all trout streams and their tributaries and trout lakes; habitat used by state or federally designated threatened or endangered species, s. 29.604, Stat., ch. NR 27 and 16 USC 1531 to 1543; and other surface waters identified as outstanding or exceptional resource waters in ch. NR 102.
41. Based on Enbridge's Wetland Delineation Reports, WRAMs, and the Department's Final EIS, the Project will not cross or otherwise impact Great Lakes ridge and swale complexes, interdunal wetlands, coastal plain marshes, emergent marshes containing wild rice, southern sphagnum bogs, boreal rich fens, or calcareous fens.
42. Most of the Project will occur on private land, except for an approximately 7.5-mile segment on Iron County Forest land.

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43. Enbridge captured civil survey and Light Detection and Ranging (LiDAR) elevation data along the Project ROW in 2020 and 2023. These data will be used as a baseline for restoration of preconstruction elevations.
44. Pursuant to 281.36, Wis. Stats., the Department considered all the following factors when it assessed the impacts to wetland functional values:
- a) The direct impacts of excavation, blasting, placement of temporary matting, placement of temporary spoils, placement of permanent fill material, vehicle and equipment operation, and wetland conversion to wetland functional values.
 - b) The cumulative impacts attributable to the proposed project that may occur to wetland functional values based on past impacts or reasonably anticipated impacts caused by this or similar projects in the area affected by the project. Similar projects would primarily consist of other utility projects with long, linear construction areas, such as Xcel Energy's proposed Ashland to Ironwood electric transmission relocation project, natural gas pipelines, and telecommunication/fiber-optic projects. These (and similar transportation) projects are being constructed throughout the state, including within Ashland and Iron Counties, on a regular basis. Additionally, the state has seen an increase in broadband utility projects in recent years. As part of the construction of utility projects, regulated wetland and waterway impacts from construction can include vegetation clearing, trenching and backfill, placement of temporary bridges, and dredging, which are also the activities proposed by this project. Under s. 1.12(6), Wis. Stats., the new permanent ROW corridor could serve as a utility corridor for future utility projects in the region; the permanent corridor may serve as a priority for siting of other utility infrastructure and may be expanded or co-located with other utilities in the future. Although the Project corridor could serve as a siting priority for other utility projects in the future, the Project itself is not expected to promote new development in the area.
 - c) The potential secondary impacts to wetland functional values, including risk of inadvertent sediment releases during construction, recurring vegetation management for ROW maintenance, disturbance for pipeline maintenance, risk of oil spills, aquifer breaches, forest fragmentation and associated edge effect, and the temporal loss as a result of long-term PSS and PFO restoration. Permanent deforestation and conversion to non-forested vegetation can contribute to changes in the landscape's hydrology. Forested canopy intercepts rainfall, facilitates transpiration, and slows the rate of snow melt and runoff that moves across the landscape. Removal of forested canopy can increase the rate of runoff flowing over the land surface and into waterways and can impact groundwater recharge and discharge capabilities; this in turn can increase the risks of flooding and the erosion of soil, particularly the clayey soils. Permanent conversion of upland and wetland forests in the permanent ROW will impact ecosystem hydrology, decrease interior woodland habitat, biodiversity, connectivity, as well as expand invasive species opportunities. The openings created in the cleared linear corridor can also confine species that rely on open habitat. It is not anticipated the permanent wetland fill will result in alterations to the wetland hydrology within the remaining complexes.
 - d) The mitigation that is required to compensate for impacts to wetland functional values under 281.36(3r). Compensatory mitigation is proposed for permanent wetland fill, conversion of PSS and PFO to PEM wetlands, and for temporal loss of wetland functions. Mitigation ratios include the following:

	Functional Value	Temporary Fill	Permanent Conversion	Permanent Fill	Ratio ¹	Ratio ²
PEM	Low-Medium	X			0.1	
	Low-Medium			X	1.2	
	High	X			0.1	
PSS	Low-Medium	X			0.06	
	Low-Medium		X		0.5	
	Low-Medium			X	1.5	
	High	X			0.25	
	High		X		0.6	
PFO	Low-Medium	X			0.25	0.5 / 0.75
	Low-Medium		X		0.6	0.85 / 1.1
	High	X			0.5	0.75 / 1
	High		X		0.7	0.95 / 1.2

¹ Ratio for in service area and in kind, ² Ratios for in service area and out of kind (PSS) / (PEM)

- e) The net positive or negative environmental impact of the Project. The Project will accommodate the relocation and operation of reliable, safe, and efficient energy infrastructure while minimizing new environmental impacts. The Project will also accommodate the continued extraction, transportation, and combustion of fossil fuels, land clearing, pipeline construction, ongoing ROW maintenance, and the potential for a pipeline release. Overall, the relationship between Enbridge's short-term use of Wisconsin's environment and the long-term productivity of Wisconsin's environment would be a net negative. The number of net positive projects being conducted in the state may be limited to conservation and restoration projects. Almost any other land disturbing activities could be considered net negative.

45. Wetlands are common in the Superior Coastal Plain and North Central Forest Ecological Landscapes. Within the North Central Forest Ecological Landscape, wetlands are embedded within extensive forest cover and adjoin lakes, rivers, and streams. Wetlands account for approximately 30 percent of the landscape in Ashland and Iron Counties. Due to the considerable abundance and mosaic distribution of wetland networks traversing the region and the linear nature of the Project, wetlands cannot be practicably avoided in the construction of the Project. Enbridge encountered several constraints as part of their route alternative evaluation process.

- a) Lack of connected existing corridors that could be followed along the eastern portion of the route; while several roads and other corridors are present in the area, none of them travel in the direction required by the Project.
- b) Avoiding impacts to communities, including residences, schools, churches, commercial buildings, and traffic.
- c) Modifications in the route, workspace, and pipeline crossing method intended to avoid or minimize impacts on a specific resource area may shift those impacts to other resource areas, increase the overall

length of the route, increase the amount of land disturbance, and/or increase the duration of construction within resources.

- d) Commercial pipeline construction typically favors a more linear design, limiting the distance and number of bends and curves.

46. Wetland functional values likely to be impacted by the Project include

- a) Storm and flood water storage and retention and the moderation of water level fluctuation extremes. Construction disturbance associated with the Project may temporarily limit the ability for wetlands to slow and store runoff from rain and melting snow. It may also temporarily compromise flood storage capacity. Improper wetland restoration or sedimentation would result in long-term impacts.
- b) Hydrologic functions, including the maintenance of dry season streamflow, the discharge of groundwater to a wetland, the recharge of groundwater from a wetland to another area and the flow of groundwater through a wetland. Construction disturbance associated with the Project may temporarily interfere with normal surface water – groundwater interactions and limit the ability for wetlands to store and release water to streams or recharge groundwater. It may also temporarily compromise groundwater flows. Improper wetland restoration or sedimentation would result in long-term impacts.
- c) Filtration or storage of sediments, nutrients, or toxic substances that would otherwise adversely impact the quality of other waters of the state. Construction disturbance associated with the Project may temporarily inhibit wetlands from retaining and filtering compounds associated with runoff and snowmelt. Improper wetland restoration or sedimentation would result in long-term impacts.
- d) Shoreline protection against erosion through the dissipation of wave energy and water velocity and anchoring of sediments. Construction disturbance associated with the Project may temporarily prevent riparian wetlands from maintaining stable streambanks. It may also temporarily increase sediment loading. Improper wetland restoration or sedimentation would result in long-term impacts.
- e) Habitat for aquatic organisms in the food web including, but not limited to fish, crustaceans, mollusks, insects, annelids, planktonic organisms and the plants and animals upon which these aquatic organisms feed and depend upon for their needs in all life stages. Construction disturbance from the Project may temporarily disrupt aquatic organism lifecycles and habitat. Improper wetland restoration or sedimentation would result in long-term impacts.
- f) Habitat for resident and transient wildlife species, including mammals, birds, reptiles and amphibians for breeding, resting, nesting, escape cover, travel corridors and food. Construction disturbance from the Project may temporarily disrupt the lifecycles of aquatic and terrestrial organisms and their habitat. Improper wetland restoration or sedimentation would result in long-term impacts.
- g) Recreational, cultural, educational, scientific, and natural scenic beauty values and uses. Construction disturbance from the Project may temporarily prevent public use and enjoyment of these resources. Improper wetland restoration or sedimentation would result in long-term impacts.

47. The Department has determined that the Project represents the least environmentally damaging practicable alternative taking into consideration practicable alternatives that avoid wetland impacts.

- a) RA-01 is approximately 9.7 miles shorter than the proposed Project and crosses approximately 13 fewer waterways, but crosses approximately 12.6 more acres of wetland, specifically 2.2 more acres of forested wetland. A portion of RA-01 would cross CFSP, including an area of the state park that is designated as ASNRI and SNA. RA-01A would cross approximately 13 fewer waterways and 15.3 more acres of wetland than the proposed Project, including 4.6 additional acres of forested wetland. RA-01B would cross approximately 8 fewer waterways and 27.9 more acres of wetland than the proposed Project, including 16.7 additional acres of forested wetland. In addition, the consideration of RA-01, RA-01A, and RA-01B does not include any access roads that could be utilized, therefore the amount of resource crossings for RA-01, RA-01A, and RA-01B could be underestimated. Routes RA-01, RA-01A, and RA-01B are more environmentally damaging than the proposed route.
 - b) RA-02 is approximately 16.9 miles longer than the proposed Project and does not cross the CFSP property. RA-02 crosses approximately 19 more waterways and 33.7 more acres of wetland, including 18.1 additional acres of forested wetland. RA-02 would result in approximately 207.6 additional acres of forest clearing. In addition, the consideration of RA-02 does not include any access roads that could be utilized for RA-02, therefore the amount of resource crossings for RA-02 could be underestimated. Route RA-02 is more environmentally damaging than the proposed route.
 - c) RA-03 is approximately 60.5 miles longer than the proposed Project but would be outside of the Bad River Watershed and crosses 21 additional perennial waterways. RA-03 crosses approximately 319.7 more acres of wetland, including 272.3 additional acres of forested wetland, and would cross the Island Lake Hemlocks SNA and the Namekagon River, a Wild and Scenic River. RA-03 would result in approximately 711.2 additional acres of forest clearing. This does not consider any access roads that could be utilized for RA-03, therefore the amount of resource crossings for RA-03 could be underestimated. Route RA-03 is more environmentally damaging than the proposed route. Routes longer than RA-03 are also likely to result in greater environmental impacts.
 - d) The No-Build alternative of continued operation of the existing Line 5 is not reasonably available and capable of being implemented, as Enbridge's easements within the Bad River Band of Lake Superior Chippewa Reservation have expired and the Band was not granted authorization to continue to site the line through the reservation.
 - e) The No-Build alternatives which would result in the discontinuation of the transport of oil and NGLs and decommissioning of Line 5, including construction of an all-Canadian pipeline or using existing Canadian pipelines to replace Line 5; switching to other existing pipelines to carry Line 5 products; transporting Line 5 products via rail cars, tanker trucks, or barges; or entirely replacing the Line 5 products with alternative energies or offsetting the demand for Line 5 products would not be consistent with the scope of the Project or its purpose of continuing to transport crude oil and NGLs through its Line 5 pipeline. There is no existing pipeline designed to transport crude oil and NGLs from Enbridge's Superior Terminal to existing delivery points served by Line 5. There is currently no rail system which connects Enbridge's Superior Terminal to existing delivery points and construction of a new rail line is impracticable on account of cost and logistics. Transportation by truck or barge would additionally be impracticable on account of cost and logistics.
48. The amount of permanent wetland fill has been minimized to the extent practicable, taking into consideration the factors for valve siting and placement. Each mainline valve requires a permanent access road for

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operational, maintenance, and emergency access. Wetland impacts from access roads have been minimized to the extent practicable to maintain safe ingress/egress of operation equipment as well as emergency equipment (e.g., fire trucks).

49. The Department has determined that if all conditions of this WQC are complied with that all practicable measures to minimize adverse impacts to wetland functional values will be taken.
50. As part of the Project application review process, Department staff collaborated with technical experts representing several government and tribal agencies. Department staff engaged in hundreds of interactions with Enbridge's team regarding the Project application, its alternatives, route modifications, impact minimization options, and the potential impacts. As a result, modifications have been made in the construction footprint, construction techniques, and/or restoration measures to avoid or further minimize wetland impacts.
51. Storage of excavated material in wetlands without adequate visual or physical barriers may prevent complete restoration. Placing excavated soils on construction matting, a thin layer of weed-free straw, a similar biodegradable material, a layer of snow, or a layer of ice during open-cut trenching in wetlands, as required by the conditions of this permit, can facilitate restoration.
52. Excavation, drilling, blasting, stockpiling, pipeline installation, and backfilling can alter groundwater discharge through seeps and springs. Enbridge is conducting hydrology monitoring in select high quality wetlands with shallow bedrock and high groundwater and seeps. Enbridge is required by the conditions of this permit to characterize existing seeps and springs and restore those features to pre-existing conditions.
53. Enbridge proposes and is required by the conditions of this permit to minimize direct impacts of the construction by minimizing the amount of permanent wetland fill, utilizing existing access roads where practicable, reducing the width of the construction workspace in wetlands from 120 feet to 95 feet, utilizing construction matting in travel areas of the corridor, segregating topsoil and subsoil, limiting stump grubbing, grinding, and grading to the trench line, locating staging and additional spoil areas at least 50 feet from wetlands where practicable, limiting the duration of an open trench, maintaining hydrology through the utilization of trench breakers, restoring seeps and springs, and implementing site-specific sediment and erosion control measures as required for compliance with WPDES Construction Site Storm Water permitting.
54. Enbridge proposes and is required by the conditions of this permit to minimize continuing impacts to wetland functional values by restoring wetlands to their pre-existing wetland soil profiles, elevations, and hydrology post-construction. Enbridge is required by the conditions of this permit to install monitoring wells prior to construction to collect baseline hydrologic data for high quality wetlands, wetlands within shallow bedrock and high groundwater and seeps, and wetlands proposed for blasting to ensure restoration of appropriate wetland hydrology. The Restoration and Post-Construction Monitoring plan in the Environmental Construction Plan (ECP) also includes active supplemental planting in disturbed wetlands. PEM wetlands will be seeded to provide temporary cover and supplemental perennial native revegetation. PFO wetlands in the temporary workspace will be seeded to provide temporary cover and planted with a combination of rootstock of balsam fir, black spruce, red maple, swamp white oak, tamarack, white pine, or yellow birch. Trees will be planted at a density of 100-300 stems per acre.
55. Enbridge is required by the conditions of this permit to operate vehicles and equipment in wetlands on construction matting or during stable ground conditions where operation will not result in soil rutting, mixing,

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or compaction; avoid placing excavated wetland soils directly on wetlands; minimize the width of the trench through wetlands to the extent practicable; plant supplemental bare root stocks in forested wetlands that are cleared for temporary workspaces; and conduct well monitoring at discrete locations along the trench line.

56. Enbridge is required by this permit to restore wetlands directly impacted by the Project to pre-existing elevations and hydrology; utilize a wetland seed mix that was developed in coordination with USEPA; perform post-construction monitoring, implement appropriate and effective BMPs in accordance with the Department's Construction Storm Water Permit; and plant bare root stocks in forested wetlands that are cleared for temporary workspaces.
57. Construction disturbance associated with the Project will impact floristic composition and integrity of wetlands, including fragmentation of forested areas; reduction in the size, integrity, and diversity of plant communities; temporal loss in the return of pre-construction condition and functions; and an increased risk of introducing or spreading invasive species. Enbridge has proposed, and the conditions in this permit require, wetland restoration to minimize long-term impacts to wetlands that are temporarily impacted by the pipeline construction.
58. Enbridge proposes to mitigate impacts to wetlands through a Compensatory Wetland Mitigation Strategy dated September 2021, revised in May and October 2024. Compensatory mitigation is proposed for permanent wetland fill, conversion of scrub-shrub and forested wetlands to emergent wetlands, and for temporal loss of wetland functions.

Type	Temporary Fill	Conversion	Permanent Fill	Credits ¹
Emergent	28.14	0	0.02	2.84
Scrub-Shrub	6.31	3.86	0	2.43
Forested	32.76	30.06	0	29.87

¹ Credits for in service area and in kind (credits for in service area and out of kind would differ)

Mitigation would include the purchase of a minimum of 35.14 mitigation credits for the Project from approved wetland mitigation banks in the Lake Superior Wetland Mitigation Service Area. If in-kind credits are available, Enbridge is required by the conditions of this permit to purchase these credits first, which would constitute 2.84 credits for wet meadow impacts, 2.43 credits for scrub-shrub impacts, and 29.87 credits for forested impacts. Additional mitigation credits would need to be acquired if out-of-kind mitigation is utilized in the Lake Superior Bank Service Area (or from the Wisconsin Wetland Conservation Trust in-lieu fee program). The Department has considered wetland mitigation under Chapter 281.36(3n)(d), Wis. Stats., and Chapter NR 350, Wis. Adm. Code. The Department has consulted with the U.S. Army Corps of Engineers (USACE) on its review of a wetland compensation mitigation plan. The Department requires compensatory mitigation for wetland losses associated with the Project and has determined that the proposed mitigation would compensate for the wetland functional values lost due to permanent fill, conversion of wetland types, and temporal impacts from construction. Enbridge is required by the conditions of this permit to obtain and provide proof of appropriate compensatory mitigation credits prior to starting any land-disturbing activities, including clearing.

59. The Department has determined the Project, if constructed in accordance with this permit, will not result in significant adverse impacts to wetland functional values, including, wildlife habitat, flood protection, shoreline protection, groundwater recharge and discharge, and recreation. The Project will avoid, minimize, restore,

and mitigate wetland impacts. The restricted ROW width and temporary pipeline construction activities will diminish functional values in the temporary workspaces until the Project is complete and the wetlands are restored. PEM wetlands in the permanent ROW will be maintained and PSS and PFO wetlands in the temporary workspaces will be reestablished. Areas of temporary wetland excavation and fill will be restored, areas of temporary wetland conversion will naturally regenerate over time (supplemented with native bare root stock plantings), and wetland mitigation will be completed through the purchase of credits. Except for the habitat conversion associated with the permanently converted PSS and PFO, wetland functional value impacts are expected to be short in duration.

60. The Department has determined the Project, if conducted in accordance with the conditions of this permit, will not result in significant adverse impacts to water quality, including surface water and groundwater:

- a) Temperature – Stream temperatures are unlikely to increase greatly due to vegetation clearing and construction activities within waterways. Small, groundwater fed streams may experience localized thermal increases due to pipeline operation. These localized thermal increases may also occur where the pipeline is installed closer to the waterway bed (e.g., in areas of shallow bedrock).
- b) Dissolved Oxygen - Major shifts in dissolved oxygen concentration would be unlikely to occur due to pipeline operation temperature increases or due to pipeline construction; dissolved oxygen would likely be affected in currently forested streams as a result of additional sunlight reaching the water, which would stimulate some growth (and therefore respiration) by algae, but the magnitude of this dissolved oxygen change would be unlikely to be large.
- c) Conductivity – Stream conductivity may increase slightly during construction activities but is unlikely to cause biological impacts.
- d) Total Phosphorus – Erosion from pipeline construction activities could contribute phosphorus to waterways. Additionally, soil amendments (e.g., fertilizer) containing phosphorus applied to riparian areas could contribute to loading. These impacts from the Project are expected to be low and short term.
- e) Nitrates – Nitrate, a common nitrogen compound found in the environment, is lost from ecosystems in response to deforestation. The impact of those ecosystem nitrate losses on waterways are expected to be modest. Additionally, soil amendments (e.g., fertilizer) containing nitrogen applied to riparian areas could contribute to nitrate loading. Nitrates can also be introduced to the environment from bedrock blasting. Limiting the amount of ammonium nitrate fuel oil (ANFO) needed for blasting will minimize nitrate release impacts to water resources.
- f) BOD/COD – Neither biological oxygen demand nor chemical oxygen demand is expected to increase substantially due to the Project.
- g) PFAS – If PFAS are present in construction materials or equipment, there could be an increase in background levels after the Project. Standard construction equipment does not carry substantial loads of PFAS and would not likely contribute to PFAS loading in waterways.
- h) Sediment – Vegetation clearing and construction activities associated with the Project will expose soil and create opportunities for runoff and an increased sediment load in waterways. Implementation

and proper maintenance of sediment and erosion control measures will limit impacts to receiving waters. Measures to minimize soil exposure associated with long-term vegetation management in the permanent ROW and pipeline maintenance activities will prevent runoff and increased sediment load in waterways. In-stream activities can disturb existing sediments causing turbidity and water quality impacts. Minimizing the extent and timing of in-stream disruption, avoiding sensitive habitat and life cycle periods for aquatic organisms, and restoring pre-existing geomorphology will minimize long-term impacts. Enbridge is required by the conditions of this permit to conduct water quality monitoring in accordance with the ECP. Enbridge filed an application with the Department for a WPDES Permit for Construction Site Storm Water. The WPDES permit requires Enbridge to implement best management practices to control storm water runoff in accordance with site-specific erosion control and storm water management plans to reduce sediment and other pollutants from entering waters of the state.

- i) Water Flow – Unless the waterways are completely dry for the entire duration of the activity below the ordinary high water mark (OHWM), trenching in the waterways is required to be completed using a work zone isolation system or bypass system to isolate the in-water work zone. Isolating the in-water work zone would minimize turbidity impacts to water quality. Enbridge is also required by this permit to restore streambed elevation to pre-existing conditions. Enbridge is required by this permit to restore waterway banks to stable conditions to prevent post-construction erosion and turbidity.
- j) HDD releases – It is likely that the Project will experience an inadvertent release (IR) during one or more of the proposed trenchless installations. Most IRs occur near entry and exit workspaces and the severity will be reduced by following the requirements in DNR Technical Standard 1072. Continuous monitoring and immediate cessation and containment during an IR in water resources, followed by comprehensive restoration, will reduce the water quality impact. Drilling fluid ingredients are not expected to affect groundwater water quality. Enbridge is required by this permit to only use drilling mud and drilling mud additives that have been approved for use by the Department.

61. The Department has determined the Project, if conducted in accordance with the conditions of this permit, will comply with water quality standards and protect surface water resources for all designated uses.

- a) Unless the waterway is completely dry, trenching in waterways shall be completed using a work zone isolation system or bypass system, such as a dam and pump or dam and flume technique, to isolate the in-water work zone from the waterway. Temporary sediment and erosion control BMPs will be installed prior to beginning in-water work. Although in-water sediment concentrations (above background) may increase as a result of in-stream activities, those impacts are limited to the work zone and nearby downstream reach during construction. Those impacts can also be reduced by limiting the duration of the in-stream activities. BMPs will be inspected and maintained throughout construction and restoration activities and will be removed once final stabilization is achieved. In-water work conducted according to the conditions of this permit will not result in significant lowering of water quality of a waterway.
- b) Implementation and proper maintenance of sediment and erosion control measures as required by the conditions of this permit will reduce sediments and other pollutants from entering receiving waters. Measures to minimize soil exposure associated with long-term vegetation management in the permanent ROW and pipeline maintenance activities will prevent runoff and increased sediment load in surface water resources.

Enbridge Line 5 Wisconsin Segment Relocation Project

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- c) The Project will not directly introduce effluent or new pollutants, including persistent, bioaccumulating toxic substances and pollutants listed in NR 102.12(12), Wis. Adm. Code, to surface water resources associated with construction or operation. In the event that the Project experiences an IR during one or more of the proposed trenchless installations, the severity will be reduced by following the requirements in DNR Technical Standard 1072 and the ECP. Drilling fluid ingredients are not expected to affect water quality.

62. The Department has determined that the proposed Project, if constructed in accordance with this permit, will not result in other significant adverse environmental consequences, including impacts to habitat, native species, recreation, and aesthetics:

- a) Although the Project will accommodate the continued extraction, transportation, and combustion of fossil fuels, the relocated infrastructure is expected to be a comparatively reliable and efficient method of energy transport that minimizes new environmental impacts. The Project will necessitate land clearing, pipeline construction, and ongoing ROW maintenance.
- b) The Department estimates the long-term probability of a spill occurring along the proposed Line 5 route to be low, .00317 spills of any size over 20 years. Safety protocols and operational standards have also greatly reduced the frequency of spills. Enbridge will construct 10 new mainline block valves as part of the project. In the event of a spill, the valve sites on either side of the spill would be turned off, limiting the amount of oil that would be released into the environment. Continuous monitoring and control of Line 5 is carried out by Enbridge personnel and systems housed in an existing Control Center that is staffed by pipeline operators 24 hours per day. Enbridge's Control Center would notify local emergency responders to respond to the site of a suspected spill and, depending on the location of a potential incident along the pipeline route, emergency response timing would typically be 60 minutes or less. Depending on location and response, a spill may present lower risk to certain sensitive receptors. Physical monitoring would also be conducted through line patrols, either by air or on foot, in accordance with federal requirements.
- c) Forest fragmentation is substantial within the Superior Coastal Plain, and the second-growth forest is broken up by agricultural lands and old fields in almost every part of the ecological landscape. Both historically and presently, this region of the state has been impacted by logging practices and forestry business practices. Within the North Central Forest, logging practices resulted in removal of forest cover, physical damages to banks and shoreline vegetation, and a decrease in water quality. Historically, the Superior Coast Plain was almost entirely forested; presently, approximately one-third of this ecological landscape is now non-forested or sparsely forested due to past and present agricultural, logging, and residential development activities. Due to past logging practices, there are now fewer older forests in the northern part of the state and most are now less than 100 years old. Notwithstanding these environmental impacts from past logging practices, the landscape has been regenerating. It is anticipated areas of temporary impact from the Project will regenerate over time, similar to the regeneration that has occurred since historic logging impacts.
- d) Approximately 0.066% of the wetlands in the Project watersheds would be affected, including 0.022% that would include permanent conversion. Areas of temporary wetland excavation and fill will be restored, areas of temporary wetland conversion will naturally regenerate over time, supplemental

bare root stock will be planted for enrichment, and wetland mitigation will be completed through the purchase of credits. The Project will avoid, minimize, restore, and mitigate wetland impacts.

- e) Permanent conversion of upland and wetland forests in the permanent ROW will impact ecosystem hydrology, decrease interior woodland habitat, biodiversity, connectivity, as well as expand invasive species opportunities. Restoration of upland and wetland forests in the temporary ROW will depend on a tailored plan that reflects the natural community characteristics. Proactively remedying anticipated declines in ash-dominated forests can offset the impacts from emerald ash borer. Supplementing natural regeneration with rootstock plantings from genotypes adapted to future climatic conditions, along with persistent monitoring and management will improve the likelihood of success in accordance with the conditions of this permit.
- f) Effects on wildlife during construction and operation could include disturbance from noise and human activities, displacement, stress, lower breeding success, direct mortality, and habitat alteration, loss, and fragmentation. Habitat-related disruptions would persist through construction until the temporary ROW is adequately restored while a subset of these disruptions would persist in the permanent ROW. Motile species will have more opportunities to avoid direct impacts than non-motile species, including flora, microflora, and microfauna. Although the Project will directly impact wildlife and their habitat, especially local populations, no state extirpations are expected.
- g) Vegetation clearing and construction activities associated with the Project will expose soil and create opportunities for runoff and an increased sediment load to water resources. Sedimentation can directly impact aquatic species, degrade water quality, and impair habitat. Sedimentation can also create opportunities for the introduction or establishment of invasive species. Implementation and proper maintenance of sediment and erosion control measures required by the conditions of this permit will reduce sediments and other pollutants from entering receiving waters. Measures to minimize soil exposure associated with long-term vegetation management in the permanent ROW and pipeline maintenance activities will prevent runoff and increased sediment load in waterways.

63. Approximately 200 navigable waterways are present within the Project area.

64. Approximately 30 navigable waterways will be crossed via trenchless methods (HDD or direct bore) and 70 navigable waterways will be crossed via open-cut trenching (dredging) in order to install the pipeline. Enbridge evaluated the suitability and impacts of crossing methods as part of its Pipeline Minimization Design. The Project will not cross Wild Rivers designated under s. 30.26, Wis. Stats, and ch. NR 302, Wis. Adm. Code.

65. The remaining 100 waterways will not be crossed by the pipeline installation directly, but will be located within the permanent ROW corridor, TWS, ATWS, access roads, pipeyards, and valve sites. These remaining 100 waterways may be crossed by temporary bridges, crossed by existing crossings (fords, bridges, culverts), or avoided during construction.

66. Approximately 61 navigable waterways will be crossed by temporary access roads. Enbridge will use existing crossings, modify existing crossing by adding temporary timber mats or gravel/rock, or place new temporary crossings.

67. Approximately 26 navigable waterways (7 perennial, 11 intermittent, 8 ephemeral) may require blasting to accommodate pipeline installation.

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68. Construction activities will result in the installation of approximately 187 temporary clear span bridges (TCSBs) over navigable waterways. TCSBs facilitate equipment access but are expected to have less impact on water quality and stream flow than bridges with supports, culverts, or fords by eliminating direct disturbance in the stream or constricting flows. Based on field observations, all but two waterway crossings will be less than or equal to 35 feet wide. Of the 187 TCSBs, two will cross Tyler Forks (WBIC 2923100) near MP 33.43 and MP 34.04, where the waterway crossings are approximately 68-feet and 58-feet wide.
69. The Department determined 4 waterways (WDH-102_x1, WDH-102_x2, WDH-107_x1, WDH-107_x2) are non-navigable and therefore not within the Department's jurisdiction under Chapter 30, Wis. Stats.
70. Impacts to water quality and aquatic habitat from pipeline installation across waterways are minimized if the construction zone is isolated using a dam and pump or flume system or crossed via trenchless methods (boring). Adjacent to waterways, Enbridge is required by the conditions of this permit to maintain sediment control measures 20 feet from the stream prior to ground disturbing activities and to restore streambanks as near as practicable to preconstruction contours and elevations.
71. Pursuant to 30.12, Wis. Stats., the Department finds all of the following will be met by the placement of temporary structures on the bed of waterways, in the form of work zone isolation systems or flow bypass systems:
- a) The structure or deposit will not materially obstruct navigation. Temporal disruption will be limited. Enbridge is required by the conditions of this permit to have pipeline segments assembled and ready for installation prior to excavation. In-stream waterway construction activities from open-cut trenching (coffer dams, bypass system, trenching, pipeline installation, backfilling, and stream restoration) will be completed in approximately 24 hours for waterways less than or equal to 10 feet wide and 48 hours for waterways between 10-100 feet wide. By conditions of this permit, Enbridge is required to allow safe portage around restricted areas of the ROW within navigable waters to anyone legally navigating the waterway. Enbridge is also required to provide navigational warning signs for approximately 17 waterway crossings, as specified in the ECP and Permit Table 1.
 - b) The structure or deposits will not be detrimental to the public interest. Temporal disruption to navigation and public recreation will be limited. Isolating the work zone by installing coffer dams and a streamflow bypass system of flumes or pumps will accommodate anticipated flows. The timing of in stream work will be adjusted to avoid high flows that could overwhelm the bypass system. In-stream waterway construction is likely to result in short-term increases in sedimentation and turbidity. Isolating construction activities from the waterway as required by the conditions of this permit will minimize impacts to water quality, aquatic habitat, and anticipated flows. Pump intakes and discharges will limit impacts to fisheries, wildlife, and their habitat. Pump intakes or flume discharges will be placed and removed in a manner that prevents the disturbance, removal, and scour of bed material.
 - c) The structure or deposits will not materially reduce the flood flow capacity of a stream. Temporal disruption to navigation and public recreation will be limited. In-stream waterway construction activities will isolate the work zone by installing coffer dams and a streamflow bypass system of flumes or pumps that accommodate anticipated flows. The timing of in stream work will be adjusted to avoid high flows that could overwhelm the bypass system or impede run-of-river flows.

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72. Pursuant to 30.12, Wis. Stats., the Department finds all of the following will be met by the placement of permanent structures on the bed of waterways:

- a) The structure or deposit will not materially obstruct navigation. Existing physical conditions document bank instability due to erosion, undercutting, and sloughing at seven locations. Permanent riprap, biologs, and root wads placed along the sloped bank and toe of bank are intended to provide long term bank stability and prevent future erosion and scour. The structures will not obstruct flows or the stream channel. Any navigational uses will not be constrained.
- b) The structure or deposits will not be detrimental to the public interest. Existing physical conditions document bank instability due to erosion, undercutting, and sloughing at seven locations. Permanent riprap, biologs, and root wads are engineered to provide long term bank stability and prevent future erosion and scour. Establishing stable banks immediately after construction of the Project as required by the conditions of this permit will limit impacts to water quality, public recreation, and habitat from excess sediment loading.
- c) The structure or deposits will not materially reduce the flood flow capacity of a stream. Permanent riprap, biologs, and root wads placed along the sloped bank and toe of bank are intended to provide long term bank stability and prevent future erosion and scour. The structures will not obstruct flows or create a barrier from the floodplain.

73. Pursuant to 30.123, Wis. Stats., the Department finds all of the following will be met by the placement of temporary bridges across waterways:

- a) The bridges will not materially obstruct navigation. The TCSBs are temporary and will be removed once access is no longer needed. TCSBs will span the waterway from bank to bank and will not require in-stream supports. As required by the conditions of this permit, Enbridge will allow safe portage around restricted areas of the ROW to anyone legally navigating public waterways.
- b) The bridges will not materially reduce the effective flood flow capacity of any streams. The TCSBs are temporary and will be removed once access is no longer needed. Bridges will not be installed during high water levels or flooding if the water level or flooding could overwhelm the TCSB crossing. TCSB installation and removal will not result in dredging the waterway. TCSBs will be anchored to prevent them from being transported downstream during high flow conditions.
- c) The bridges will not be detrimental to the public interest. Temporal disruption to navigation and recreation will be limited. Bridges installed for equipment access will span the waterway from bank to bank, will be placed perpendicular to the channel, and will not require instream supports. All TCSBs will be anchored to prevent them from becoming dislodged during high flows. Placement and removal of TCSBs will comply with timing restrictions approved by Department fisheries staff to avoid impacts to aquatic species movement. Use of TCSBs will minimize impacts to water quality, aquatic habitat, and anticipated flows. As required by the conditions of this permit, Enbridge will provide safe portage around restricted areas of the ROW to anyone legally navigating public waterways. Appropriate barriers, such as geotextile fabric and silt sock, are required by conditions of this permit and will be installed to prevent sediment and materials from entering the waterway during use of the TCSBs. The installation and removal of the TCSBs will be conducted in a manner that prevents sediment and debris from entering the waterway.

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74. Pursuant to 30.20, Wis. Stats., the Department has determined the dredging of waterways is consistent with the public interest in navigable waters:
- a) If conducted in accordance with the conditions of this permit, dredging will not result in significant adverse impacts to the public rights and interests. Backfill material of the trench will consist of the originally removed bed material and the substrate features shall be returned to pre-construction conditions. If the stream bed in the crossing location has a unique substrate feature (i.e. cobbles, boulders, etc.), it will be returned to preconstruction conditions. Pools, riffles, and runs will be restored to pre-construction conditions. Banks will be restored to stable conditions. Downstream flow will be maintained in the waterway during all periods of open-trench construction. Dredging will comply with timing restrictions approved by Department fisheries staff to avoid impacts to aquatic species. Enbridge will provide safe portage around restricted areas of the ROW to anyone legally navigating public waterways.
 - b) If conducted in accordance with the conditions of this permit, dredging will not result in environmental pollution, as defined in s. 299.01 (4). Unless the waterway is completely dry (no standing water, no flowing water) for the entire duration of the activity below the OHWM, including accounting for rain events during construction, trenching in the waterway shall be completed using a work zone isolation system or bypass system, such as a dam and pump or dam and flume technique, to isolate the in-water work zone from the waterway. Temporary sediment and erosion control BMPs will be installed prior to beginning in-water work. Enbridge assessed sediment dispersion associated with stream crossing activities. Although in-water sediment concentrations (above background) increase as a result of in-stream activities, those impacts are limited to the work zone and nearby downstream reach during construction. Those impacts can also be reduced by limiting the duration of the in-stream activities. BMPs will be inspected and maintained throughout construction and restoration activities and will be removed once final stabilization is achieved.
75. To avoid disruption to fish species and their habitat, through conditions of this permit, the Department is limiting construction timeframes or methods during specific time periods listed in Permit Table 1.
76. Permit conditions require Independent Environmental Monitors (IEMs) who are approved by the Department to oversee activities related to its authority, document permit compliance, and streamline communication with Enbridge and its contractor.
77. The Project, if constructed in accordance with this permit and protection measures required and recommended by the Department's Office of Energy Endangered Resources Energy Liaison, will avoid and minimize impacts to endangered resources. Enbridge is required by this permit to use upland seed mixes that contain $\geq 99\%$ native species (use of *Lolium perenne* is acceptable). Most recommended actions will be followed by Enbridge using a native seed mix as part of restoration as well as completing tree clearing during winter months. For those state-listed endangered resources that cannot be avoided, an Individual Incidental Take Permit will be issued or a Broad Incidental Take Permit that has already been issued will ensure take of those species is minimized pursuant to Wisconsin's Endangered Species Law (29.604, Wis. Stats.).
78. The proposed Project, if constructed in accordance with this permit, will comply with s. 44.40, Wis. Stats. Sites within USACE jurisdiction are subject to Section 106 of the National Historic Preservation Act review under the authority of USACE.

Enbridge Line 5 Wisconsin Segment Relocation Project

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CONCLUSIONS OF LAW

1. There is a reasonable assurance that, if conducted in accordance with the conditions of this certification, the proposed project will be conducted in a manner which will comply with the standards enumerated in s. NR 299.04, Wis. Adm. Code.
2. The Department has complied with the Wisconsin Environmental Policy Act, s. 1.11, Wis. Stats.

ORDER

IT IS THEREFORE ORDERED THAT the application of Enbridge Energy, LP, for water quality certification, Docket # IP-NO-2020-2-N00471, is hereby approved with conditions.

NOTICE OF APPEAL RIGHTS

Any person whose substantial interests may be affected by the Department's determination may, within 30 days after publication of this notice in the newspaper, request a contested case hearing on the matter under Ch. 227, Wis. Stats. A request for a contested case hearing shall include a written statement giving specific reasons why the proposed activity violates the standards under s. NR 299.04(1)(b), Wis. Adm. Code, and provide specific information explaining why the petitioner's interests are adversely affected by the Department's determination. The request for a hearing shall also include a written statement specifying that the petitioner will appear and present information supporting petitioner's objections in a contested case hearing.

If no written request for a hearing is filed with the Department within 30 days after publication of the notice in the newspaper, the Department's determination will become final without a hearing at the end of the 30-day period.

Dated at Madison, WI on November 14, 2024

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

By  _____

Benjamin Callan

Director, Waterways Program

EXHIBIT C

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S Webster St
PO Box 7921
Madison, WI 53707-7921

Tony Evers, Governor

Telephone (608) 935-3368
Toll Free 1-888-936-7463
TTY Access via relay - 711



November 14, 2024

Charles D. Drayton
Enbridge Energy, Limited Partnership
Energy Center Five
915 N. Eldridge Parkway, Suite 1100
Houston, TX 77079

SUBJECT: Coverage Under WPDES General Permit No. WI-S067831-06: Construction Site Storm Water Runoff
Permittee Name: Enbridge Energy, Limited Partnership
Site Name: Line 5 Wisconsin Segment Relocation Project
FIN: 73858

Dear Mr. Drayton:

The Wisconsin Department of Natural Resources received your Water Resources Application for Project Permits or Notice of Intent, on September 24, 2020, for the Line 5 Wisconsin Segment Relocation Project site and has evaluated the information provided regarding storm water discharges from your construction site. We have determined that your construction site activities will be regulated under ch. 283, Wis. Stats., ch. NR 216, Wis. Adm. Code, and in accordance with Wisconsin Pollutant Discharge Elimination System (WPDES) General Permit No. WI-S067831-06, Construction Site Storm Water Runoff. All erosion control and storm water management activities undertaken at the site must be done in accordance with the terms and conditions of the general permit.

The **Start Date** of permit coverage for this site is November 14, 2024. The maximum period of permit coverage for this site is limited to 3 years from the **Start Date**. Therefore, permit coverage automatically expires and terminates 3 years from the Start Date and storm water discharges are no longer authorized unless another Notice of Intent and application fee to retain coverage under this permit or a reissued version of this permit is submitted to the Department 14 working days prior to expiration.

A copy of the general permit along with extensive storm water information including technical standards, forms, guidance and other documents is accessible on the Department's storm water program Internet site. To obtain a copy of the general permit, please download it and the associated documents listed below from the following Department Internet site:
<http://dnr.wi.gov/topic/stormwater/construction/forms.html>

- Construction Site Storm Water Runoff WPDES general permit No. WI-S067831-06
- Construction site inspection report form
- Notice of Termination form

If, for any reason, you are unable to access these documents over the Internet, please contact me and I will send them to you.

To ensure compliance with the general permit, please read it carefully and be sure you understand its contents. Please take special note of the following requirements (This is not a complete list of the terms and conditions of the general permit.):

1. The Construction Site Erosion Control Plan and Storm Water Management Plan that you completed as part of your permit application must be implemented and maintained throughout construction. Failure to do so may result in enforcement action by the Department.

2. Construction dewatering discharges from an area subject to remedial action operations or from an area containing contamination that would be subject to remedial action operations are not eligible for coverage under this permit (section 1.1.2.3). Discharges may be eligible for coverage under the Contaminated Groundwater from Remedial Action Operations General Permit (WI-0046566-07-0).
3. The general permit requires that erosion and sediment controls be routinely inspected at least every 7 days, and within 24 hours after a rainfall event of 0.5 inches or greater. Weekly written reports of all inspections must be maintained. The reports must contain the following information:
 - a. Date, time, and exact place of inspection;
 - b. Name(s) of individual(s) performing inspection;
 - c. An assessment of the condition of erosion and sediment controls;
 - d. A description of any erosion and sediment control implementation and maintenance performed;
 - e. A description of the site's present phase of construction.
4. A **Certificate of Permit Coverage** must be posted in a conspicuous place on the construction site. The Certificate of Permit Coverage (WDNR Publication # WT-813) is enclosed for your use.
5. When construction activities have ceased and the site has undergone final stabilization, a Notice of Termination (NOT) of coverage under the general permit must be submitted to the Department.

It is important that you read and understand the terms and conditions of the general permit because they have the force of law and apply to you. Your project may lose its permit coverage if you do not comply with its terms and conditions. The Department may also withdraw your project from coverage under the general permit and require that you obtain an individual WPDES permit instead, based on the Department's own motion, upon the filing of a written petition by any person, or upon your request.

If you believe that you have a right to challenge this decision to grant permit coverage, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to ss. 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to s. 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with s. NR 2.05(5), Wis. Adm. Code, and served on the Secretary in accordance with s. NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

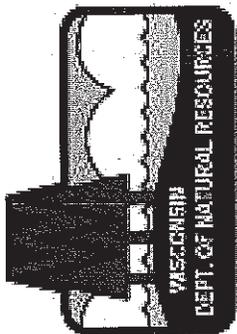
Thank you for your cooperation with the Construction Site Storm Water Discharge Permit Program. If you have any questions concerning the contents of this letter or the general permit, please contact Shannon Dobbins-Haydin at (608) 609-1520.

Sincerely,


Shannon Dobbins-Haydin
Storm Water Section Manager

ENCLOSURE: Certificate of Permit Coverage

cc (via email): Cathryn Hanson, Enbridge
Joe McGaver, Enbridge
Tim Drake, Environmental Resources Management
Greg Pils, WDNR



CERTIFICATE OF PERMIT COVERAGE

UNDER THE WPDES CONSTRUCTION SITE STORM WATER RUNOFF PERMIT Permit No. WI-S067831-06

Under s. NR 216.455(2), Wis. Adm. Code, landowners of construction sites with storm water discharges regulated by the Wisconsin Department of Natural Resources (WDNR) Storm Water Permit Program are required to post this certificate in a conspicuous place at the construction site. This certifies that the site has been granted WDNR storm water permit coverage. The landowner must implement and maintain erosion control practices to limit sediment-contaminated runoff to waters of the state in accordance with the permit.

EROSION CONTROL COMPLAINTS should be reported to the WDNR Tip Line at **1-800-TIP-WDNR (1-800-847-9367)**

Please provide the following information to the Tip Line:

WDNR Site No. (FIN): 73858

Site Name: Line 5 Wisconsin Segment Relocation Project

Location: Summit Rd/SH 112 (Ashland Co.) to City of MELLENN to US 2/LeDuc Rd (Iron Co.), Valve Sites (Bayfield/Iron Co.)

Additional Information:

Landowner: Enbridge Energy, Limited Partnership

Landowner's Contact Person: Joe McGaver

Contact Telephone Number: (218) 390-9254

Permit Start Date: November 14, 2024

By: *Shannon K. Hayd*

EXHIBIT D



**Before The
State of Wisconsin
DIVISION OF HEARINGS AND APPEALS**

In Re: Permit # IP-NO-2020-2-N00471, Water Quality Certification, and Coverage under WPDES General Permit No. WI-S067831-06 issued to Enbridge Energy, LP, and the Department of Natural Resources Environmental Impact Statement for Enbridge Energy's Line 5 Segment Relocation Project in Ashland, Bayfield, and Iron Counties.

DHA Case No. DNR-25-0002
DNR Case Nos. 24-048 and 24-049

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

The PARTIES to this proceeding are:

Bad River Band of Lake Superior Chippewa, by

Attorneys Robert Lundberg, John Petoskey, and Stefanie Tsosie
Earthjustice
1345 N. Jefferson St. #158
Milwaukee, WI 53202

Clean Wisconsin, by

Attorneys Evan Feinauer and Brett Korte
Clean Wisconsin
634 West Main Street, Suite 300
Madison, WI 53703

350 Wisconsin, League of Women Voters of Wisconsin, and Sierra Club, by

Attorneys Robert Lee, Anya Janssen, and Skylar Harris
Midwest Environmental Advocates
634 West Main Street, Suite 201
Madison, WI 53703

DNR-25-0002
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Enbridge Energy, LP, by

Attorneys Eric Maassen, Peter Tomasi, Elizabeth Stone, and Thomas
Hutchison
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777 East Wisconsin Avenue
Milwaukee, WI 53202-5306

Wisconsin Department of Natural Resources, by

Attorneys Michael Kowalkowski, Molly McNab, Katherine Hanson, Craig
Sparks, and Michael Moran
P.O. Box 7921
Madison, WI 53707-7921

PROCEDURAL HISTORY

On November 14, 2024, the Wisconsin Department of Natural Resources (Department) issued a combined Wetland and Waterway Individual Permit #IP-NO-2020-2-N00471, along with a Water Quality Certification and coverage under the Wisconsin Pollution Discharge Elimination System (WPDES) general permit No. WI-S067831-0, to Enbridge Energy, LP (Enbridge) for Enbridge's Line 5 Segment Relocation Project in Ashland, Bayfield, and Iron Counties (Project). On December 12, 2024, the Bad River Band of Lake Superior Chippewa (Band), by its attorneys, Earthjustice, and 350 Wisconsin, League of Women Voters of Wisconsin, and Sierra Club, by their attorneys, Midwest Environmental Advocates, and Clean Wisconsin (collectively Environmental Petitioners), filed Petitions for a Contested Case Hearing with the DNR pursuant to Wis. Stat. §§ 227.42, 30.209, and 281.36(3q). By letter dated January 2, 2025, the Department granted the requests for a contested case hearing on nine issues raised by the Petitioners.

On January 24, 2025, the case was forwarded to the Division of Hearings and Appeals (DHA). Administrative Law Judge (ALJ) Angela Chaput Foy was assigned to the matter. On February 28, 2025, the ALJ issued an order staying the activity, Project, and coverage under the discharge permit pursuant to Wis. Stat. §§ 30.209(1m)(c) and 281.36(3q)(d). Pursuant to due notice, a prehearing conference was held on March 31, 2025, and a scheduling order was issued on April 7, 2025.

On April 15, 2025, an order was issued clarifying the language of the nine issues for hearing. The issues for hearing, as clarified, are:

- (1) Whether activities authorized by Permit #IP-NO-2020-2-N00471 meet state requirements and wetland permitting standards under Wis. Stat. § 281.36(3n)(c) and Wis. Admin. Code Ch NR 103 or whether additional or modified conditions are required.

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- (2) Whether wetland compensatory mitigation required by Permit #IP-NO-2020-2-N00471 meets state wetland mitigation requirements under Wis. Stat. § 281.36(3r) and Wis. Admin. Code Ch. NR 350 or whether additional or modified conditions are required.
- (3) Whether structures and deposits in navigable waters authorized by Permit #IP-NO-2020-2-N00471 meet state requirements and waterway permitting standards under Wis. Stat. § 30.12 or whether additional or modified conditions are required.
- (4) Whether the removal of material from the beds of navigable waters authorized by Permit #IP-NO-2020-2-N00471 meets state requirements and waterway permitting standards under Wis. Stat. § 30.20 or whether additional or modified conditions are required.
- (5) Whether temporary clear span bridges authorized by Permit #IP-NO-2020-2-N00471 meet state requirements and waterway permitting standards under Wis. Stat. § 30.123 or whether additional or modified conditions are required.
- (6) Whether activities authorized by Permit #IP-NO-2020-2-N00471 meet state water quality certification standards under Wis. Admin. Code § NR 299.04 or whether additional or modified conditions are required.
- (7) Whether the Department's Final Environmental Impact Statement (EIS) described the purpose of the proposed project and reasonable alternatives to the proposed project in accordance with Wis. Stat. § 1.11(2)(c)3. and Wis. Admin. Code §§ NR 150.30(2)(b) and (e).
- (8) Whether the EIS contained a complete environmental analysis in accordance with Wis. Stat. § 1.11(2)(c) and Wis. Admin. Code §§ NR 150.30(2)(f), (g), and (h).
- (9) Whether the construction activities proposed in the notice of intent meet the terms and conditions for coverage under the WPDES Construction Site Stormwater General Permit No. WI-S067831-6.

A final prehearing conference was held with the parties on July 22, 2025, to address logistics of the hearing with the parties. In accordance with the scheduling order, the parties filed prepared testimony pursuant to Wis. Admin. Code § NR 2.14(5) on August 11, 2025. The prepared testimonies were marked as exhibits and admitted at the hearing.

Pursuant to due notice, a hearing was held in person on August 12, September 3, September 5, September 8-9, September 15-18, September 22-26, and September 29-October 3, 2025. The hearing was held at the Northwood Technical College Conference Center in Ashland, Wisconsin on August 12 and September 15-18, 2025. The other hearing days were held at the Hill Farms State Office Building in Madison, Wisconsin. Each day of hearing was also available by Microsoft Teams video for remote observation by the public. The hearing was transcribed by court reporters. All parties filed post-hearing briefs as closing arguments. Their initial briefs were filed on November 10, 2025, and their response briefs were filed on November 24, 2025.

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The record in this matter includes the transcript¹ from the hearing and Exhibits 1-6, 9-17, 19, 21, 23, 25, 28, 32-38, 40-42, 46-55, 100-110, 114, 115, 115A, 115B,² 116-123,³ 126-131, 200-202, 204, 204A, 209-210, 220-241, 242, 242A, 243, 244, 244A, 249-253, 301-312, 314-324, 325, 325A, 326-336, 339-340, 342-344, 346-347, 350, 352, 352A, 353, 354, 354A, 355, 355A, 356-361, 364, 364A, 365, 369-370, 373-388,⁴ and 400-1011.⁵

FINDINGS OF FACTS

1. Enbridge Energy, LP (Enbridge) is a North American energy infrastructure company. It delivers energy sources such as wind, solar, hydrogen, geothermal, crude oil, and natural gas. Enbridge's Mainline Pipeline System spans over 3,200 miles and transports approximately three million barrels of crude oil per day. The U.S. portion of the Mainline, known as the Lakehead System, includes 1,552 miles of pipeline in Wisconsin. (Ex. 378 at 1-3).
2. Line 5 of the Lakehead System is a 645-mile-long 30-inch pipeline that originates at Enbridge's terminal in Superior, Wisconsin and traverses Michigan, terminating near Sarnia, Canada. Line 5 transports an average of 540,000 barrels of feedstock each day, which is fractionated and/or refined into propane, butane, gasoline, diesel fuel, jet fuel, and other products. Line 5 is unique in that it has the equipment to transport both crude oil and natural gas liquids. It was built in 1953 by Enbridge's predecessor. (Ex. 378 at 3-4; Ex. 636 at 8; Ex. 910; Ex. 631 at 29)
3. The Bad River Band of Lake Superior Chippewa (Band) is a federally recognized sovereign Tribal Nation with treaty-guaranteed reservation lands in Northern Wisconsin. Additionally, the Band retains off-reservation treaty rights to hunt, fish, gather, and engage in traditional activities. (Chairman, Tr. at 1301, 1308)
4. Twelve miles of Line 5 passes through the Band's Reservation. (Ex. 378 at 4-5; Ex. 904 at 12)
5. In 2013, Enbridge's lease of land within the Reservation for Line 5 expired, and Enbridge submitted an application to renew the lease. (Ex. 910)

¹ The 29 transcripts from the 19 days of hearing were consolidated into one document and Bates numbered. Citations to the transcript in this decision reference the Bates page number of this consolidated transcript (Tr.), and include the name of the witness testifying (Witness, Tr. at Bates page #).

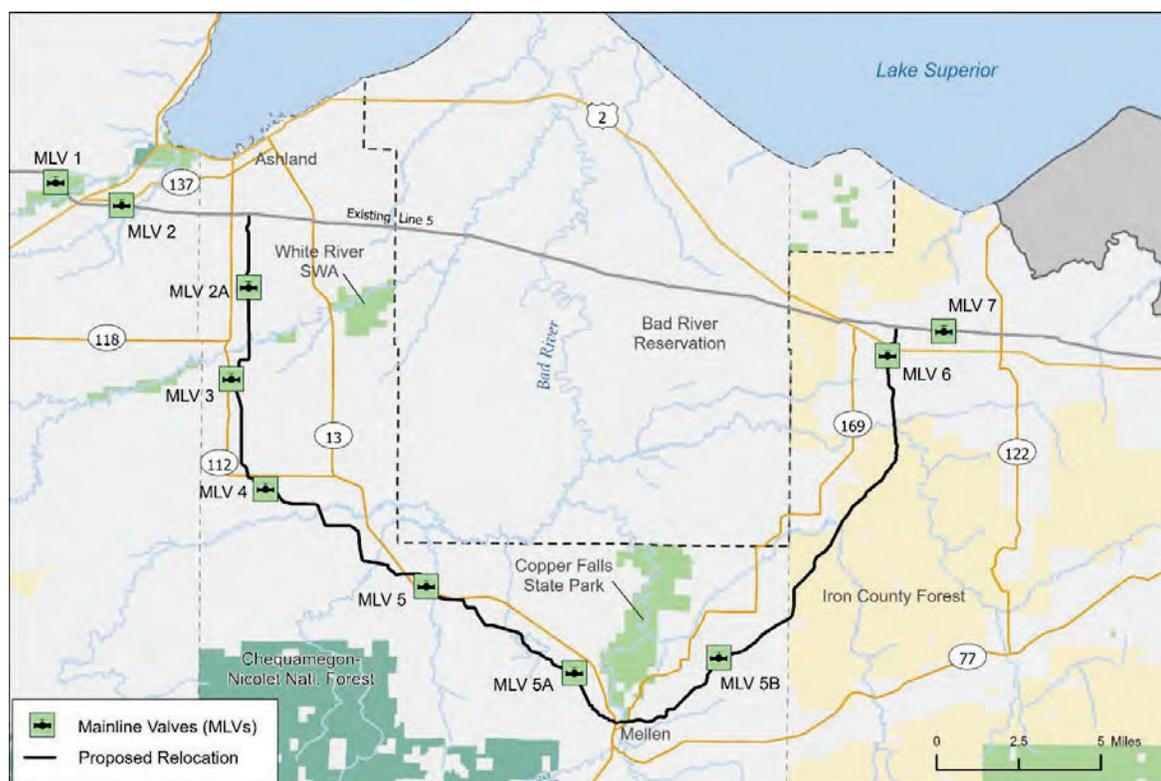
² Exhibit 115 referred to a Blasters' Handbook; 115 is the cover page of the handbook. The admission of the handbook is limited to the two excerpts, 115A and 115B.

³ Exhibits 110, 114, 116, 118, and 120 each have subparts, and all subparts of these exhibits were also admitted into evidence.

⁴ Exhibits 354, 355, and 383 each contain a document and a video. The video is the "A" version of these exhibits.

⁵ Pinpoint citations to page numbers of exhibits in this decision reference the Bates page number of the exhibit.

6. The Band raised concerns about the safety of Line 5 with Enbridge, following an Enbridge crude oil spill in the homelands of the Nottawaseppi Huron Band of Pottawatomi in 2010 in Michigan. Enbridge and the Band began discussions of the potential new lease but were unable to reach an agreement. In January 2017, the Band initiated an action seeking Enbridge's ejection from the Band's property. (Ex. 636 at 8; Ex. 378 at 6; Ex. 904 at 287; Ex. 910 at 15-16, 34-35)
7. Following litigation, Enbridge was ordered to discontinue use of the portion of Line 5 that crosses the Reservation by June 16, 2026.⁶ (Ex. 378 at 6)
8. Enbridge developed the Line 5 Wisconsin Segment Relocation Project (Project) to reroute a segment of Line 5 so that the line is entirely outside the Reservation. The Project involves constructing 41.1 miles of the 30-inch diameter pipeline through Bayfield, Ashland, and Iron Counties. The proposed 41.1 miles of new pipeline and 10 new mainline block valves of the Project would replace approximately 20 miles of existing Line 5 pipeline. It crosses the cities of Ashland and Mellen and the towns of Gingles, Marengo, Morse, White River, Anderson, Gurney, Saxon, and Eileen. Most of the Project would occur on private land, except for approximately 7.5 miles on Iron County Forest land. (Ex. 378 at 7; Ex. 631)



(Figure 1.1-2, Enbridge's proposed relocation route and location overview, Ex. 807 at 29)

⁶ Each party appealed the order to the Seventh Circuit Court of Appeals, and a decision is still forthcoming. *Bad River Band v. Enbridge Energy Co., Inc.*, 2023 WL 4043961 (W.D. Wis. June 16, 2023).

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9. The Project requires Enbridge to clear land along the Project right-of way (ROW) and temporary workspaces, construct access roads, excavate trenches, install and bury the pipeline, and restore the sites. The ROW would be used for pipeline installation and maintained after construction. Most of the new pipeline for the Project would be laid by digging a long trench and lowering the pipe into it. (Ex. 807, §§ 2.5-2.6; Ex. 630 at 72-74; Ex. 631; Ex. 633)
10. Significant portions of the Project's route have been largely undisturbed by human impact in the last century. The proposed route intersects numerous wetlands. It is located within the Fish Creek-Frontal Chequamegon Bay, White River, Marengo River, Headwaters Bad River, Tyler Forks, Potato River, and Bad River-Frontal Lake Superior watersheds. Many wetlands within the Project route are high-quality and exhibit high functional values and high floristic integrity. They are sensitive to disturbances of soils, hydrology, and vegetation. (Willman, Tr. at 4145:18-23; Ex. 807 at 499-500)
11. The Project also plans to use several methods to cross waterbodies and wetlands. Trenching would occur to construct the pipeline at approximately 70 waterway crossings. Most of the trenching would be completed with a backhoe or a wheel-type excavator, but blasting would also occur where necessary to bury the pipeline to the required depth. Additionally, horizontal directional drilling (HDD) and the direct bore method are planned to cross some waterways. HDD and direct bore are subsurface, so they avoid directly impacting surface features. HDD requires drilling a pilot hole and then enlarging the hole through successive ream borings. Direct bore uses a micro tunnel boring machine to drill the path for the pipe. (Ex. 807 at 88-102, 109-114; Ex. 630 at 23-29, 72-74)
12. Once the pipeline is installed, the Project plans call for Enbridge to bury it and then restore the area. Burying the pipeline includes backfilling with material removed from the trench, excess rock from blasting, or clean granular fill such as sand. Restoration includes grading, seeding, and stabilization. (Ex. 630 at 15-16, 74; Ex. 831; Ex. 630 at 74-80)
13. On December 17, 2019, Enbridge met with the Wisconsin Department of Natural Resources (Department) for a required pre-application meeting. The Department provided Enbridge with information including the Department's authority, the need to complete an Environmental Impact Statement (EIS), the need to avoid and minimize wetland impacts, the need to appropriately limit waterway impacts, and the need to comply with protections for endangered and threatened species and habitats. (Ex. 631 at 25)
14. On February 11, 2020, Enbridge applied to the Department for permits, certifications, and authorizations needed to construct the Project, including:
 - a. A water quality certification under the Clean Water Act, which would certify that the Department had reasonable assurances to conclude that the Project would not violate Wisconsin water quality standards; and

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- b. An individual wetland and waterway permit authorizing construction activities such as trenching, dredging, HDD, blasting, and site restoration. (Ex. 631; Ex. 633; Ex. 769; Ex. 650)
15. As part of its application, Enbridge also submitted an Environmental Impact Report to the Department, which provided a description of the Project and Enbridge's analysis of the potential environmental effects of the Project. (Ex. 631 at 25)
16. Beginning in 2020 and continuing through 2024, the Department had continuous, ongoing, and frequent communication and meetings with Enbridge, its consultants, and local, state, and national environmental advocacy organizations regarding the Project. (Ex. 809 at 7)
17. On June 8, 2020, the Department posted a Notice of Pending Application and Public Hearing on the EIS that it planned for the Project. On July 1, 2020, the Department held a hearing on the completeness of Enbridge's permit application and the scope of the proposed EIS. In addition to oral comments at the hearing, the Department received over 2,100 written comments. (Ex. 633; Ex. 846)
18. In August 2020, Enbridge submitted a revised Environmental Impact Report. (Ex. 631 at 25)
19. On September 23, 2020, Enbridge filed its Notice of Intent for coverage under the storm water general permit, which would authorize discharges of storm water associated with the Project. (Ex. 699)
20. Beginning in 2020 through 2024, the Department and Enbridge engaged in a review of the Project, which included the Department requesting additional information and Enbridge responding with information, data, and revisions to its plans. (Exs. 401-422; Exs. 424-425; Ex. 443; Ex. 446; Ex. 506; Exs. 510-513; Exs. 518-537; Exs. 544-562; Ex. 688; Exs. 690-692; Exs. 861-896; Ex. 1001; Exs. 1007-1010)
21. Enbridge submitted wetland delineations to the Department that were conducted by Environmental Resource Management, Inc. (ERM), a professional wetland consultant, for the entire 41-mile Project route. The delineations were conducted along a corridor of approximately 300 to 500 feet along the route, expanding significantly wider than the pipeline ROW, staging areas, temporary workspaces, and access routes. Field work for the first field surveys occurred between August and October 2019, and a second set of surveys was conducted between May and July 2020. Enbridge delineated and identified approximately 101.1 acres of wetlands within the Project area. Approximately 28.1 acres were identified as palustrine emergent (PEM), 10.2 acres were palustrine scrub-shrub (PSS), and 62.8 acres were palustrine forested (PFO). The most common wetland plant communities were hardwood swamp (58.9 acres), fresh (wet) meadow (24.7 acres), and shrub-carr (7.0 acres). (Ex. 807 at 484; Ex. 587 at 5; Ex. 684 at 4; Ex. 631 at 30-31)
22. Enbridge also conducted the Department's Wetland Rapid Assessment Methodology (WRAM) for each wetland identified. WRAMs provide a standardized approach to

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characterize wetland condition and functional values based on observable characteristics. Enbridge assigned an overall functional value based on a compilation of the ratings from the individual functional value categories. The Department does not recommend a single, overall WRAM rating approach, but instead assigns individual ratings to each functional value category. Enbridge assessed approximately 26.0 acres of wetland as high functional value, 57.1 acres of medium functional value, 10.1 acres as low functional value, and 8.0 acres of low-invasive functional value. Based on Enbridge's WRAM assessments, almost half of the PFO and PSS wetlands that would be permanently cleared provide a "High" wildlife habitat functional value and "High" floristic quality. Almost one quarter of the wetlands provide "High" or "Exceptional" flood and stormwater storage, water quality protection, and ground water processes functional values. (Ex. 631 at 30-31)

23. Beginning in September 2020, the Department completed field investigations throughout the proposed Project area, and continued these field investigations in August 2021, March 2023, June 2023, July 2023, and October 2023, to independently evaluate wetland boundaries, wetland quality and functions, waterway characteristics, potential geohazards, and potential environmental impacts of the Project. Additionally, Department fisheries staff completed field surveys within portions of the Project area in July and August 2023. (Ex. 631 at 30)
24. The Department contracted with a third-party environmental consulting firm, TRC Environmental Corporation (TRC), to help prepare the draft EIS, and the Department collaborated with TRC to coordinate information gathering and analysis. (Ex. 50 at 4; Ex. 52 at 3)
25. Between November 2020 and August 2021, the Department held five joint technical meetings with staff from the Band, the Red Cliff Band of Lake Superior Chippewa, the Lac du Flambeau Band of Lake Superior Chippewa, and the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) on topics to be included in the draft EIS. (Ex. 809 at 3)
26. Between November 2020 and October 2021, the Department sent Enbridge formal information requests for additional information, and Enbridge provided responses and additional information. (Ex. 809 at 3; Ex. 52 at 3)
27. In May 2021, the Department communicated with Ashland County regarding the Project. (Ex. 809 at 3)
28. In August and September 2021, the Department met with the Wisconsin Department of Agriculture, Trade, and Consumer Protection to receive input on sections of the EIS addressing agricultural resources. (*Id.*)
29. Beginning in November 2021 and continuing through 2024, the Department communicated with the Wisconsin Department of Administration's Wisconsin Coastal Management Program to coordinate federal consistency with the state and the U.S. Army Corps of Engineers (USACE). (*Id.*)

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30. On November 18, 2021, the Department shared an advance copy of the draft EIS with tribal governments including the Band, federal agencies, and GLIFWC. On December 10, 2021, the Band and GLIFWC submitted preliminary comments to the Department on the draft EIS. (*Id.*; Ex. 633; Ex. 901; Ex. 809 at 3; Ex. 52 at 3)
31. On December 16, 2021, the Department released the draft EIS, posted it on the Department web page, and initiated the public comment period, which ran until April 15, 2022. (Ex. 809 at 4; Exs. 904-905)
32. On February 2, 2022, the Department held a virtual public hearing on the draft EIS. Over 160 individuals testified and over 32,000 written comments were received during the public comment period. Department staff compiled, digitized, and reviewed all of the public comments it received. The Department then ended its contract with TRC and began its work to prepare the final EIS. (Ex. 809; Ex. 631; Ex. 633; Ex. 50 at 5; Ex. 52 at 7)
33. On May 25, 2022, the Department met with the U.S. Environmental Protection Agency (EPA) to discuss EPA's comments to the draft EIS and to discuss how to address the comments. (Ex. 809 at 4)
34. On June 8, 2022, the Department met with the EPA and the USACE to further discuss the draft EIS. (*Id.*)
35. In July 2022, Enbridge and its consultants met with the Department, USACE, and the federal Pipeline and Hazardous Material Safety Administration (PHMSA) to present Enbridge's general approach to their spills analysis. In September 2022, Enbridge submitted a draft Water Quality Monitoring Plan for the Project to the Department and USACE. (*Id.* at 5; Ex. 495)
36. Between August and September 2022, Enbridge performed timed meander surveys for the subset of wetlands it determined to be of medium to high overall functional value from the delineations and WRAM assessments. During the timed meander surveys, Enbridge applied cover classes instead of absolute cover levels, as described by the Department's timed meander survey protocol.⁷ Additionally, Enbridge used the midpoint of each cover class to assign coverage values in the Floristic Quality Assessment Calculators. Based on Enbridge's timed-meander survey, approximately two-thirds of the PFO wetlands that would be permanently cleared by the Project have a known Floristic Quality Index rating of "High" or "Exceptional." Of the wetlands surveyed during the timed meander surveys, 55% indicated an "Exceptional" Coefficient of Conservatism (mean C-value) rating and 27% indicated a "High" mean C-value rating. To avoid underestimating the functional value of wetlands when reviewing results from Enbridge's assessments, the Department selected the highest documented functional value

⁷ Enbridge used the Braun-Blanquet cover class scale. The Braun-Blanquet method groups values into classes, and each class is then assigned a score. In contrast, absolute cover refers to the exact percentage of ground area covered by a species. (*See* Thompson, Tr. at 2246-2248)

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assessment or floristic value calculation as representative of the accurate wetland conditions. (Ex. 631 at 30-31)

37. Beginning in October 2022 and continuing through April 2024, the Department resumed its technical meetings with the Band staff and GLIFWC, to share information and discuss how to address tribal comments. In 2023 and 2024, the Department requested additional information regarding natural resources and cultural resources from the Band and GLIFWC. The Department also reviewed and relied on reports and information that GLIFWC published on its website or in documents available for the public. (Ex. 809 at 4, 6)
38. Beginning October 2022 and continuing through January 2024, the Department and USACE made additional formal information requests to Enbridge, seeking additional information for environmental impact analyses, and Enbridge responded. (*Id.* at 6)
39. Enbridge contracted with RPS Group and DNV GL USA to conduct a spills analysis. The consultants modeled the risk and potential effects of oil spills from the Project route and alternative routes, as well as inadvertent releases of HDD fluids (also called frac-outs) and sediment discharged during pipeline construction at stream crossings. In December 2022, Enbridge met with the Department, USACE, PHMSA, and the EPA to present the analytical methods and preliminary findings of the spills analysis. (Ex. 809 at 5)
40. In May 2023, the Department entered into an agreement with the U.S. Geological Survey (USGS) to provide expertise for evaluating erosion, sediment dispersion, and oil spill modeling work. The USGS advised the Department on the effects of spills on water resources within the Bad River watershed. (Ex. 809 at 5; Ex. 50 at 5-6)
41. In July 2023, Enbridge submitted an update to its Environmental Justice Commitment Plan that included an Environmental Justice Assessment report and a summary of Enbridge's community outreach. (Ex. 809 at 6)
42. Between June and November 2023, Department staff visited numerous sites along the Project route and the surrounding area, including the Reservation, to corroborate information submitted by Enbridge, to better understand proposed construction activities, to view potentially impacted resources, and to collect environmental information. Staff from the Mashkiiziibii Natural Resources Department, the natural resources department for the Band, accompanied Department staff on several of these visits. In November 2023, the Department contracted with a member of the Band, who was also a former Tribal Historic Preservation Officer, to review the Department's drafted materials related to cultural resources and Ojibwe worldviews. (*Id.*)
43. In October 2023, PLG Consulting published a report (PLG Report) containing an overview of the North American hydrocarbon supply chain, an analysis of the markets currently supplied by Line 5, and a discussion of alternative supply chain and market options for Line 5 products. (Ex. 123)

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44. On December 11, 2023, Midwest Environmental Advocates (attorneys for Sierra Club, 350 Wisconsin, and League of Women Voters of Wisconsin) provided the PLG Report to the Department. On January 31, 2024, 350 Wisconsin, League of Women Voters of Wisconsin, Sierra Club, and Clean Wisconsin (collectively the “Environmental Petitioners”) met with the Department to discuss the PLG Report. (Mednick, Tr. at 3594; Ex. 122, Ex. 2, Ex. 121)
45. On February 2, 2024, Enbridge submitted a revised Water Quality Monitoring Plan to the Department. (Ex. 809 at 6)
46. Between February and July 2024, Enbridge submitted additional information to the Department including site-specific erosion and sediment control plans and maps, details on proposed temporary clear span bridges, site-specific drawings showing proposed bank stabilization methods and channel remediation, a Wetland and Waterbody Restoration and Post Construction Monitoring Plan, and an Invasive and Noxious Species Management Plan. (*Id.*; Ex. 487; Ex. 438)
47. Between March and May 2024, the Department communicated with Tribal Historic Preservation Officers regarding tribal cultural resources. (Ex. 809 at 7)
48. On September 6, 2024, the Department published its final EIS. The 898-page document, with its comment response document, WEPA Compliance Determination, and 36 appendices (constituting 7,020 additional pages), also addressed public comments including many of those raised by the Band and GLIFWC and contained the Department’s determination that the EIS satisfied the Department’s obligations under WEPA and ch. NR 150 of the Wisconsin Administrative Code. (Exs. 807-845)
49. On November 14, 2024, the Department granted the permit, certification, and coverage that Enbridge required for construction of the Project.
 - a. The Department issued Enbridge a combined individual Wetland and Waterway Permit #IP-NO-2020-2-N00471, which contains 78 findings of fact and 250 conditions authorizing the construction activities necessary for the Project. The permit includes both general conditions and specific conditions governing HDD, dewatering, prevention and mitigation of invasive species, protection of endangered species, control for erosion and sediment, blasting, waterways, beaver dams, temporary clear span bridges, temporary work structures, permanent bank stabilization structures, dredging, wetlands, construction matting, restoration, and post-construction monitoring. It also requires Enbridge to implement the Environmental Construction Plan dated October 2024, which includes the Invasive and Noxious Species Management Plan, the Erosion Control Plans, and the Compensatory Mitigation Strategy that it approved, in addition to requiring compliance with the Endangered Resources Review. (Ex. 631)
 - b. The Department issued Enbridge a Water Quality Certification pursuant to the Clean Water Act, which contains 78 findings of fact and 231 conditions for the Department to confirm that the Project will comply with Wisconsin’s water

quality standards.⁸ The certification conditions govern notification of commencing and completing discharge, access by the Department, construction, erosion and sediment control practices, equipment used for the Project, minimizing the impact on fish spawning, wetland protections, prevention and mitigation of invasive species, preventive measures, dewatering, water quality monitoring, restoration, independent environmental monitors, and water quality specifically in waterways. Additionally, the certification is limited to the work described in Enbridge's application and Environmental Construction Plan and like the individual permit, it requires Enbridge to implement the Environmental Construction Plan dated October 2024, which includes the Erosion Control Plans, Compensatory Mitigation Strategy, Invasive and Noxious Species Management Plan, and Water Quality Monitoring Plan. (Ex. 633)

- c. The Department issued Enbridge a certificate of permit coverage under the Wisconsin Pollution Discharge Elimination System (WPDES) General Construction Site Storm Water Runoff Permit No. WI-S067831-06, which requires all erosion control and stormwater management activities to be done in accordance with the terms and conditions of the general permit. It also mandates that Enbridge follow the Construction Site Erosion Control Plan and Storm Water Management Plan that was submitted as part of its application. (Ex. 655)

50. On December 12, 2024, the Band filed a petition for a contested case hearing with the Department. Also on December 12, 2024, the Environmental Petitioners filed a petition for a contested case hearing with the Department.

51. On January 2, 2025, the Department reviewed and consolidated the petitions and granted a contested hearing on nine issues raised by the Band and Environmental Petitioners.

52. On August 12, 2025, pursuant to due notice, the hearing in this matter began. Members of the public had the opportunity to provide testimony pursuant to Wis. Admin. Code § NR 2.08 at the beginning of the hearing, on August 12, 2025, in Ashland, and on September 3, 2025, in Madison. On August 12, 2025, 46 interested individuals testified. On September 3, 2025, three more individuals testified. The members of the public came from a variety of backgrounds, some with experience in related industries. They presented views that both supported and opposed the Project. Positions varied widely, encompassing support for Enbridge, the need for the fuel Line 5 transports, and potential economic benefits the construction may bring to the area, as well as serious critiques of pipelines, concerns of oil spills based on past Enbridge projects, and calls for alternative fuel sources. (Tr. at 53-264, 360-374)

⁸ The U.S. Army Corps of Engineers (USACE) assessed the Project's impact to water quality within the Reservation pursuant to Section 401(a)(2) of the Clean Water Act. USACE conducted a Section 401(a)(2) hearing on May 13-14, 2025. (Ex. 210, Ex. 329-330)

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DISCUSSION

Enbridge Energy, LP (Enbridge) owns and operates the Mainline Pipeline System, which spans over 3,200 miles and transports approximately three million barrels of crude oil per day. The U.S. portion of the Mainline, known as the Lakehead System, includes 1,552 miles of pipeline in Wisconsin. Line 5 of the Lakehead System is 645 miles long beginning in Superior, Wisconsin and terminating near Sarnia, Canada. Twelve miles of Line 5 crosses land belonging to the Bad River Band of Lake Superior Chippewa (Band). The Band is a federally recognized sovereign Tribal Nation with treaty-guaranteed reservation lands in Northern Wisconsin and off-reservation treaty rights to hunt, fish, gather, and engage in traditional activities. In 2013, Enbridge's lease for the use of the Band's land for Line 5 expired. While Enbridge applied to renew the lease, Enbridge and the Band were unable to reach an agreement on the terms, and following litigation, Enbridge was ordered to discontinue use of the portion of Line 5 that crosses the Band's Reservation.

Accordingly, Enbridge developed a plan to reroute Line 5 outside of the Reservation. The Line 5 Wisconsin Segment Relocation Project (Project) involves constructing 41.1 miles of the 30-inch diameter pipeline around the Reservation through Bayfield, Ashland, and Iron Counties. Beginning in 2020, Enbridge applied to the Wisconsin Department of Natural Resources (Department) for permits, coverage, and certifications needed to construct the Project, which the Department ultimately granted in 2024 following an extensive investigation, review, and revision process.

This case involves the Petitioners'⁹ challenge of the Department's decisions to grant Enbridge an individual Wetland and Waterway permit, Water Quality Certification, and coverage under the Wisconsin Pollution Discharge Elimination System (WPDES) Construction Site Stormwater General Permit to Enbridge for construction of the Project. Prior to making the permit and certification decisions, the Department completed an Environmental Impact Statement (EIS) for the Project, which is also challenged. As a threshold matter, this administrative proceeding is confined to whether the Department's determinations to grant the permit, certification, and coverage were supported by evidence and consistent with applicable law. It is not so broad as to include a policy debate. The proceeding is limited to the factual record and the Department's permitting authority. The Department's permitting authority is limited to that which has been delegated by statute. *George J. Capoun Revocable Trust v. Ansari*, 2000 WI App 83, ¶ 7, 234 Wis. 2d 335, 342, 610 N.W.2d 129, 133 (Ct. App. 2000).

The Petitioners were granted a contested case hearing on nine issues related to these Department determinations. The permits, certification and EIS, will each be addressed in turn. This decision will address each Department decision in the context of the related issues for hearing as follows:

I. Individual Wetland Permit

⁹ Clean Wisconsin, 350 Wisconsin, League of Women Voters of Wisconsin and Sierra Club (collectively "Environmental Petitioners"), together with the Band, are referred to as the Petitioners.

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Issue 1: Whether activities authorized by the permit meet state requirements and permitting standards.

Issue 2: Whether wetland compensatory mitigation required by the permit meets state wetland mitigation requirements.

II. Individual Waterway Permit

Issue 3: Whether structures and deposits in navigable waters authorized by the permit meet state requirements and permitting standards.

Issue 4: Whether the removal of material from the beds of navigable waters authorized by the permit meets state requirements and permitting standards.

Issue 5: Whether temporary clear span bridges authorized by the permit meet state requirements and permitting standards.

III. Water Quality Certification

Issue 6: Whether activities authorized by the permit meet state water certification standards.

IV. Environmental Impact Statement

Issue 7: Whether the Department's Final Environmental Impact Statement (EIS) described the purpose of the proposed Project and reasonable alternatives in accordance with the law.

Issue 8: Whether the EIS contained a complete environmental analysis in accordance with the law.

V. WPDES Construction Site Stormwater General Permit

Issue 9: Whether the construction activities proposed in the notice of intent meet the terms and conditions for coverage under the general permit.

VI. Modified Permit Conditions

Pursuant to Wis. Admin. Code § NR 2.13(3), the Petitioners have the burden of proving each identified issue by a preponderance of the evidence. This standard requires the Petitioners to establish that the Department's determinations more likely than not failed to comply with the applicable statutory and regulatory standards. If the Petitioners prove by a preponderance of the evidence that the Department lacked sufficient credible evidence consistent with the law, then the Department's determinations are not lawful. *See Meteor Timber, LLC, v. Wis. Dept. of Hearings & Appeals*, 2022 WI App 5, ¶ 54, 400 Wis. 2d 451, 969 N.W.2d 746 (Ct. App. 2021).

I. Individual Wetland Permit

The 41-mile route of the Project intersects numerous wetlands and waterways. It is undisputed by the parties that the Project route is rich with wetlands, many of which exhibit high functional values. Wetlands are areas where water is at, near, or above the land surface long

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enough to support aquatic or hydrophytic vegetation and have soils that are indicative of wet conditions. Wis. Stat. § 23.32(1). Flood water storage and moderation, groundwater recharge and discharge, filtration of sediments and pollutants, shoreline stabilization, and habitat protection are important functions of wetlands. Wis. Admin. Code § NR 103.03. Wisconsin law integrates protecting water quality with wetland permitting by the Department, and the permitting process emphasizes avoidance, minimization, and mitigation of wetland impacts.

The Project involves clearing forests, sheet piling, blasting, and trenching, each of which can cause adverse impacts to wetland functional values and water quality. The activities, size, and scope of the Project require Enbridge to obtain an individual permit from the Department. The general process to apply for an individual permit includes meeting with the Department and submitting an application that includes an analysis of practicable alternatives;¹⁰ a wetland delineation; detailed project plans showing proposed fills, access, and grading; a narrative discussing the alternatives considered; and a preliminary mitigation strategy. Then, following a public hearing and public comment period, the Department decides whether to grant the permit. *See* Wis. Stat. § 281.36; Wis. Admin. Code § NR 300.07.

In making the decision, the Department must determine whether the project uses the least environmentally damaging practicable alternative, whether the project uses all practicable measures to minimize adverse impacts, and whether the project will not result in significant adverse impacts to wetland functional values or water quality. Wis. Stat. § 281.36(3n). If the Department issues an individual permit, compensatory mitigation is required to offset unavoidable wetland impacts. Wis. Stat. § 281.36(3n)(d). Mitigation options include purchasing credits from an approved wetland mitigation bank, purchasing in-lieu fee credits from the Department, or conducting and being responsible for its own mitigation in the same watershed. Wis. Admin. Code § NR 350.004.

In this case, on November 14, 2024, the Department issued Enbridge combined Wetland and Waterway Permit #IP-NO-2020-2-N00471, containing 250 conditions, which when followed authorizes the construction of the Project. (Ex. 631) The Petitioners challenge the Department's grant of the permit, arguing that the Department did not have adequate information to determine whether wetland permitting standards have been met. They argue that the Project will cause significant direct, cumulative, and secondary impacts and that the mitigation required by the permit is insufficient.

The Department granted the Petitioners a contested case hearing on two issues related to wetlands and the permit. Each are addressed below. The evidence in the record is sufficient to establish by a preponderance of the evidence that the activities authorized by the permit and the compensatory mitigation required by the permit meet the legal requirements and wetland permitting standards.

¹⁰ The analysis must identify that the project (1) avoids adverse wetland impacts where possible, (2) minimizes impacts to the greatest extent practicable, and (3) does not create other significant adverse environmental consequences. Wis. Stat. § 281.36(3m)(b).

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Issue 1: Whether activities authorized by Permit #IP-NO-2020-2-N00471 meet state requirements and wetland permitting standards under Wis. Stat. § 281.36(3n)(c) and Wis. Admin. Code Ch NR 103 or whether additional or modified conditions are required.

Wis. Stat. § 281.36(3n)(c) requires that in order to issue an individual wetland permit, the Department must find that a proposed project causing a discharge is in compliance with water quality standards and that all of the following apply:

1. The proposed project represents the least environmentally damaging practicable alternative taking into consideration practicable alternatives that avoid wetland impacts.
2. All practicable measures to minimize the adverse impacts to wetland functional values will be taken.
3. The proposed project will not result in significant adverse impact to wetland functional values, in significant adverse impact to water quality, or in other significant adverse environmental consequences.

Wis. Stat. § 281.36(3n)(c).

Chapter NR 103 of the Wisconsin administrative code establishes water quality standards for wetlands. It provides the framework for the Department to evaluate activities that may impact wetland functional values. Activities must not result in significant adverse impacts on a wetland's functional values, which include storm and flood water storage and moderation; hydrologic functions such as groundwater discharge and recharge; filtration of sediments, nutrients, or toxic substances; shoreline protection against erosion; habitat for fish, wildlife, and aquatic organisms; and recreational, cultural, and scientific uses. Wis. Admin. Code § NR 103.03(1). A project proponent must demonstrate that no practicable alternative exists that would avoid adverse impacts to wetlands. Wis. Admin. Code § NR 103.08(4)(a)1.

The Petitioners argue that permitting standards were not met in three ways. First, they assert that the Department relied on inadequate information about the location, acreage, and quality of wetlands that will be impacted, and as a result, it lacked information necessary to determine whether permitting standards had been met. Second, they argue that measures to minimize impact to wetland functional values were not taken. Third, they argue that the Project will result in significant adverse impacts to wetland functional values, water quality, and the environment in violation of Wis. Stat. § 281.36(3n)(c)3. Each argument will be addressed in turn.

A. Whether the Department had adequate information about the location, acreage, and quality of wetlands to be impacted by the Project to determine whether permitting standards were met.

A wetland delineation is a survey conducted primarily to identify the boundaries of wetlands based on hydrology, soil, and vegetation. (Willman, Tr. at 4142:24-25, 4143:1-10) This survey method was developed by the U.S. Army Corps of Engineers (USACE) and is required by Wis. Stat. § 281.36(2m). It consists of both field work and a review of resources. The field work involves observing and documenting hydrophytic vegetation, observing and documenting

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hydrologic indicators, and sampling and evaluating soils, which are then translated into an identified wetland boundary using GPS-located paired sample points (one documenting wetland and the other documenting upland). (Ex. 587 at 7-10) The survey also reviews resources that indicate the potential presence of wetlands including the Wisconsin Wetland Inventory, soil maps developed by the United States Department of Agriculture Natural Resources Conservation Service, topographic maps, aerial photographs, and antecedent precipitation data. (Willman, Tr. at 4146:14-25, 4147:1-11)

The wetland delineation methodology followed by Enbridge was consistent with the Department's requirements: each wetland identified contained paired sample points and was supported by individual Wetland Determination Data Forms, which identified and documented hydrology, vegetation, and soils. (Willman Tr. at 4151-4153, 4155, 4158; Exs. 591-612, 648) Enbridge's delineations identified wetlands that were not present in the Wisconsin Wetland Inventory, verifying that Enbridge's consultants had traversed the landscape to identify all possible wetlands in the Project area and did not just rely on written resources. (Willman, Tr. at 4159, 4173)

Enbridge's consultants also completed the Department's Wetland Rapid Assessment Methodology (WRAM) for each wetland it identified. WRAM is a tool to assess the functional values of a wetland and qualitatively evaluate the floristic condition of a wetland.¹¹ It includes observations of wildlife, vegetation surveys, flood and stormwater storage and retention, and groundwater process information. (Willman, Tr. at 4161) The Department does not require WRAM assessments, and it does not usually receive WRAM assessments, or the detailed information that they contain, when evaluating projects for permits. (Callan, Tr. at 5166)

In 2022, Enbridge's consultants also completed timed meander surveys for 73 of the identified wetlands where WRAM assessments indicated moderate to high quality resources. (Ex. 649 at 3) Timed meander surveys are conducted by traversing a wetland in timed intervals and recording observations of vegetation, which are then translated to cover percentages by species. (Willman Tr. at 4182) The survey provides information about the composition and quality of the plant community in the wetland and the functional values it supports, and it refines the coverage percentages of species documented in the WRAM assessments. (Willman, Tr. at 4182-4183). Like WRAM assessments, the Department does not require timed meander surveys, and it does not usually receive timed meander surveys, or the detailed information they contain, when evaluating projects for permits. (See Callan, Tr. at 5167)

The Department then, as part of the preparation of the EIS, critiqued the information that Enbridge provided and interpreted the data and findings for a more meaningful review and understanding of the information. For example, in the EIS, the Department presented Enbridge's overall WRAM score characterization of wetlands, and it also reported out the individual WRAM ranking by functional values, expressed in acres and percentages. (Ex. 807 at 419-493) This process allowed the Department to consider functional values independently. (Willman, Tr. at 4180-4181) Additionally, the Department also considered, and reported in the EIS, information

¹¹ Floristic integrity is not a wetland functional value, but a way of describing the vegetation. See Wis. Admin. Code §§ NR 103.03(1), 350.003(17)

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from field studies conducted by the Mashkiiziibii Natural Resources Department.¹² (Ex. 807 at 469-473) Finally, the Department considered additional information for wetlands with the highest functional values and presented it in the EIS. For those “high” wetlands that would be crossed by more than 100 feet of pipeline, the Department provided individual functional value ratings and a narrative describing natural communities and anticipated Project impacts. (Ex. 807 at 474-485) For other “high” ranking wetlands with less pipeline crossing, the EIS contains individual functional value ratings and acreages of impacts. (*Id.* at 485-489). This information allowed the Department a more in-depth understanding of the highest value resources in the area so that it could work with Enbridge to avoid and minimize impacts. (Willman, Tr. at 4191-4192)

Despite the wetland delineations, WRAM assessments, timed meander surveys, and the analysis identified in the EIS, the Petitioners argue information was missing from the Department’s analysis. Specifically, they say the Department did not confirm wetland boundaries or investigate areas Ms. Alice Thompson, an experienced environmental and wetland consultant with expertise in wetland delineation, described as “missed wetlands” based on her field review in 2023. (Ex. 244; Ex. 200) Additionally, the Petitioners argue that the WRAMs provided by Enbridge were inadequate. They assert that the Department should have conducted a field review of each WRAM instead of reviewing a subset of 15, which revealed inconsistencies and understated wetland functional values. (Willman, Tr. at 4163-4165) They also dispute Condition 234 in the permit, which provides, “You shall submit the final acreage of actual wetland impacts associated with this Project within 30 days of Project completion,” arguing that the acreage should be known in advance, not after the wetlands are impacted. (Ex. 631 at 23)

Regarding the Petitioners’ claim that wetlands were missed, the permit specifies in Condition 205, “No wetlands may be disturbed beyond the area specifically described in Permit Table 1.” (Ex. 631 at 20)¹³ If the Project impacts other wetlands, that is unauthorized by this permit. Enbridge would need to seek additional authorization from the Department. (Haller, Tr. at 5030; Callan, Tr. at 5298-5299). Additionally, on cross-examination, Ms. Thompson admitted that what she identified as “missed wetlands” were actually potential wetlands. (Thompson, Tr. at 2352-2353) She did not complete a soils analysis, which is required under the USACE delineation manual.

Regarding the WRAM assessments, the Petitioners did not establish that WRAMs were required. Mr. Scott Storlid, a wetlands expert with Stantec Consulting Services, Inc., testified that he reviewed them, visited the Project route, and found the assessments accurate. (Storlid, Tr. at 2695, 2726-2727, 2743) Additionally, the Department established that it does not require WRAMs, that it did its own analysis from the data sheets submitted with these assessments, and

¹² The Mashkiiziibii Natural Resources Department is the natural resources department for the Band, similar to how the Wisconsin Department of Natural Resources works for the State of Wisconsin. (Tillison, Tr. 1312-1313)

¹³ Permit Table 1 identifies each wetland or waterbody impacted by the Project by ID, milepost, latitude, longitude, project component name (e.g., mainline ROW, access road, etc.), proposed pipeline crossing method (e.g., HDD, trench, direct bore), whether blasting is anticipated, any acreage of temporary wetland impacts, any acreage of permanent wetland conversion, any acreage of permanent wetland fill, its watershed location, the depth of the ordinary high water mark, in addition to other information. (Ex. 639)

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that these assessments were not the only information it relied on in assessing the wetlands that may be impacted by the Project.

Regarding Condition 234's mandate to report the final acreage of impacts, this does not authorize Enbridge to impact additional wetlands. As described above, no wetlands may be disturbed beyond what is specifically described in Permit Table 1. However, it was clear from testimony that actual wetland boundaries may change from season to season. In that regard, it would be appropriate for Enbridge to report what acreage was actually impacted at the time the work is done, which is what is required by this condition.

The evidence presented includes an EIS with a thorough examination of the wetland resources that would be affected by the Project. It also includes WRAM assessments (with supporting data sheets), timed meander surveys, and other data defining wetland boundaries, documenting plant communities, wetland functional value ratings, and floristic integrity. Department staff made site visits to Project locations. (Haller, Tr. at 4925) They included permit conditions to address specific concerns. (*See e.g. id.* at 4984, 4997, 5008) Department staff testified that before issuing the permit, they requested additional information from Enbridge, which included revisions to Enbridge's water quality monitoring plan, until they were satisfied that permitting standards were met. (*See* Haller, Tr. at 4980, 4987, 5013) The Petitioners have not met their burden to establish that the Department did not have sufficient information about the location, acreage, and quality of the wetlands as required by Wis. Stat. § 281.36 to evaluate and determine whether the permitting standards were met.

In their critique of Enbridge's wetland assessments, the Petitioners disapproved of Enbridge's use of the Braun-Blanquet method instead of absolute cover to assess the cover and abundance of a plant species. (Thompson, Tr. at 2198-2199, 2246-2248). Braun-Blanquet is a method used to estimate the cover within an area, assigning categories with a numeric scale. It allows for comparison of species and repeatable results. Absolute cover is the actual percentage of the ground surface covered by a specific plant species. (*Id.*) Enbridge proposed modifying the permit and water quality certification to clarify that it will use absolute cover, not Braun-Blanquet, for post-construction monitoring. The proposed modification relates to Condition 242 of the permit (Ex. 631 at 23) and Condition 148 of the water quality certification (Ex. 633 at 20),¹⁴ which provides:

You shall implement the ECP's Wetland and Waterbody Restoration and Post-Construction Monitoring Plan. This plan incorporates native seed mix as well as bare root stock to reestablish wetland vegetation.

The proposed modification to the condition states:

You shall implement the ECP's Wetland and Waterbody Restoration and Post-Construction Monitoring Plan (the "Wetland Restoration Plan"). This plan incorporates native seed mix as well as bare root stock to reestablish wetland vegetation. Notwithstanding anything in the Wetland Restoration Plan to the

¹⁴ Condition 242 of the permit (Ex. 631 at 20) and Condition 148 of the water quality certification (Ex. 633 at 20) are identical. The proposed modification to the language is also identical.

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contrary, the absolute cover method shall in all cases be used instead of the Braun-Blanquet cover classes to record species cover/abundance where and as specified in the Wetland Restoration Plan for post-construction monitoring. Braun-Blanquet shall not be used for post-construction monitoring.

Regarding this proposed change, testimony from Department staff and the Petitioners' experts established that absolute cover is preferred over the Braun-Blanquet method because it is more specific. (Jarosz, Tr. at 4383; Callan, Tr. at 5312) With this evidence, the proposed modification is appropriate for post-construction monitoring.

B. Whether measures to minimize impacts to wetland functional values were taken.

Wis. Stat. § 281.36(3n)(c)2. requires that "all practicable measures to minimize the adverse impacts to wetland functional values will be taken." Here, Enbridge incorporated minimization measures in its plans, and the Department ensured additional minimization measures were taken by requiring Enbridge to continue to explore reductions, by requiring Enbridge to materially modify its plans to implement minimization measures, and by conditioning further protective practices in permit conditions both before, during, and after construction.

The Petitioners argue that Enbridge should have taken additional measures, but did not, and as a result, the Department should not have found that Enbridge took all practicable measures to avoid wetland impacts. The additional measures offered by the Petitioners include a more thorough investigation for artesian conditions to avoid aquifer breaches, avoiding springs along the Project route by better identifying spring locations, a commitment to monitoring soil compaction levels pre- and post-construction to be able to respond to compacted soils, a commitment to the temporary suspension of construction on vulnerable soil during wet conditions to avoid harm to site soils, and sourcing timber mats from the construction corridor to limit invasive spread. (Ex. 450; Ex. 807)

The record does not support the Petitioners' position, as they failed to demonstrate by a preponderance of the evidence that such additional measures would minimize impacts to wetland functional values. Regarding the above additional measures the Petitioners allege should have been included, the Petitioners did not establish (a) that these measures could actually be implemented without causing additional impacts, (b) that implementing these measures would result in fewer functional value impacts, and (c) that implementing these measures would still allow the Project to meet its purpose. For example, Condition 28 of the permit specifies, "Any springs encountered in the ROW that cannot be avoided by construction must be characterized (i.e., location and flow rate) and documented prior to disturbance. These springs shall be restored to pre-existing flow regimes and conditions as required by the Department." (Ex. 631 at 4) This echoes the Petitioners' call to avoid springs along the Project route, and it accounts for additional springs that may only be discovered once vegetation has been cleared. The Petitioners have not established what additional practicable measures should have been taken to identify and avoid springs that would not cause additional impacts and how these measures would result in fewer wetland functional value impacts.

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In reviewing the evidence presented, the Department required significant measures to minimize impacts to functional values in the form of precise, enforceable conditions. These include making route adjustments to the most sensitive areas, specifying construction methods such as controlled blasting setbacks or the use of trenchless crossings where appropriate, implementing timing restrictions and advanced planning to reduce disturbances, and requirements for restoration, monitoring, and contingency procedures. The Petitioners have not established that the Department failed to require that all practicable measures to minimize impacts to wetland functional values were taken to comply with Wis. Stat. § 281.36(3n)(c)2.

C. Whether the Project will result in significant adverse impacts to wetland functional values, water quality, or the environment in violation of Wis. Stat. § 281.36(3n)(c)3.

Wis. Stat. § 281.36(3n)(c)3 requires that “The proposed project will not result in significant adverse impacts to wetland functional values, in significant adverse impact to water quality, or in other significant adverse environmental consequences.” The parties dispute how this statute applies to the Department’s permitting process.

The Petitioners assert that the statute imposes a substantive constraint. They contend that the Department must determine what level of wetland impact is the lowest practicable by comparing multiple design, routing, and construction alternatives, and then selecting the option that actually minimizes functional loss. The Band also argues that the Department cannot apply the statute in isolation from the Band’s treaty rights. They argue that wetland functional values such as hydrology, vegetation, and wildlife habitat are directly tied to hunting, fishing, and gathering. Finally, the Petitioners also assert that these minimization steps are separate from mitigation, and the Department must exhaust practicable minimization before relying on mitigation. They argue that the Department improperly accepted Enbridge’s preferred design, failed to require additional construction methods or rerouting, and treated mitigation as a substitute for stricter minimization.

The Department and Enbridge assert that the language of the statute must be read in context. Wis. Stat. § 281.36(3n)(c)2 requires that “all practicable measures to minimize the adverse impacts to wetland functional values will be taken.” This “minimum adverse effect” means the lowest impact that is practicable, not just what is theoretically possible. Practicability includes technical feasibility, safety, reliability, and cost considerations. The statute does not mandate the elimination of all impacts. Finally, they contend that minimization and mitigation are integrated, which allows the Department to consider both minimization and mitigation when evaluating overall functional outcomes because mitigation is part of determining whether the Project’s net effect on wetland functional values is minimized.

In *Kohler Co. v. Wisconsin Department of Natural Resources*, 2024 WI App 2, 410 Wis. 2d 433, 3 N.W.3d 172 (Ct. App. 2023), the court of appeals examined the application of Wis. Stat. §§ 283.36(3n)(b) and (c) and concluded that it required the Department to consider the entirety of a proposed project when addressing a wetland individual permit. *Id.*, ¶ 3. It found that § 281.36(3n)(c)3 requires the Department “to evaluate, for example, secondary impacts of a proposed project to [wetland functional values] and the net positive or negative environmental impact of the proposed project.” *Id.*, ¶ 38 (internal quotations omitted). While that case affirmed

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an ALJ's decision to reverse the Department's wetland permit, its analysis of significant adverse impacts focused on the Department's findings and conditions in the permit, specifically that there were no conditions in the permit addressing the adverse impacts to wildlife. *Id.*, ¶ 31. Additionally, the ALJ found, based on specific testimony from Department staff, that the Department did not consider whether the use of chemicals and contaminants in operating the golf course would reach groundwater and wetlands. *Id.*, ¶ 32.

Here, the Petitioners raise concerns about specific impacts that the Project will cause to wetland functional values including vegetative clearing, soil compaction despite the use of construction mats, trenching, blasting, sheet piling that could breach aquifers, and inadvertent releases of drilling mud. They assert that the impacts will be direct, significant, and permanent. Additionally, they raise concerns over cumulative impacts and potential secondary impacts, including the production of methylmercury (a neurotoxin), impacts to hydrologically connected wetlands, and oil spills.

Unlike the permit in *Kohler*, here the Department evaluated the impacts of concern raised by the Petitioners and conditions in the permit largely address them. The Permit notes that the Project will result in 101.1 acres of direct, temporary impact from clearing. (Ex. 631 at 31) Vegetation clearing is addressed in conditions 32, 43, 57, 60, 139, and 216. (*Id.*) The amount of vegetation clearing was also considered in evaluating the alternative routes for the Project. (*Id.* at 27-28) Soil compaction was addressed in conditions 55, 219, and 236. (*Id.*) Trenching was addressed in conditions 37, 170, 193, and 203. (*Id.*) Additionally, the permit noted that 76.4 acres would be disturbed via open-cut trenching. (*Id.* at 31) Blasting is addressed in conditions 123-127. (*Id.*) Sheet piling is addressed in condition 181, 196, and 221. (*Id.*) Inadvertent releases from drilling are not permitted under the permit, and contingencies for them are addressed in conditions 37, 49, and 107. Similarly, the permit acknowledges the direct impacts, cumulative impacts, and potential secondary impacts to wetland functional values as a result of the Project activities. (*Id.* at 32-33) In the EIS, the Department addressed, acknowledged, and considered how the Project's route or potential secondary impacts could affect the Band exercising treaty-protected activities (*Id.* at 155-265, 632, 790) The Department then evaluated the Project as a whole, as required by *Kohler*, and determined, "Overall, the relationship between Enbridge's short-term use of Wisconsin's environment and the long-term productivity of Wisconsin's environment would be a net negative," similar to "almost any other land disturbing activities." (Ex. 631 at 33) Therefore, the permit requires specific compensatory mitigation, required to compensate for impacts to wetland functional values under Wis. Stat. § 281.36(3r). (Ex. 631 at 33, 37-38)

Both the Department's recognition that almost any land-disturbing activity (absent projects limited to conservation and restoration) creates an initial net negative impact and the mandate in *Kohler* to consider the "entirety of the project" necessitate an evaluation that considers *both* minimization and mitigation. If the Department were barred from considering the restorative effects of mitigation under Wis. Stat. § 281.36(3r) when determining overall functional outcomes, then § 281.36(3r) would be rendered meaningless. Here, the Department examined impacts to wetland functional values, water quality, and the environment, and after requiring avoidance and minimization where possible, the Department then integrated these

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factors into its mitigation requirements¹⁵ in the permit, concluding that the Project in total will not result in a significant adverse impact and will comply with Wis. Stat. § 281.36(3n)(c)3.¹⁶ The Petitioners have not met their burden to show that the Department's determination – that when reviewing the totality of the Project *including* mitigation, the Project will not cause significant impacts to wetland functional values, water quality, or the environment – was improper.

One potential secondary impact of concern that the Petitioners raise is the potential for construction of the Project to increase methylmercury, a neurotoxin. The median value of mercury observed in the surface water of the Bad River Tribal Lands is more than two-fold greater than the wildlife criteria and human thresholds for total recovered mercury in water supply under the state of Wisconsin standards, which is to say there is a significant amount of mercury already in this system. (Almendinger, Tr. at 885-886) Methylmercury is a mercury ion with a methyl group (a carbon and three hydrogen) attached to it, and it is a potent neurotoxin. (*Id.* at 840). Wetlands have an inventory of mercury and sulfate. (*Id.* at 876-877) When the water table decreases, sediments are exposed to air and oxidize sulfur to sulfate. When the water table rises again, the soil is depleted of oxygen and sulfate-reducing bacteria thrive. These bacteria use the accumulated sulfate and convert it into sulfide. During this metabolic process, the bacteria transfer a methyl group to mercury, creating methylmercury as a byproduct, which becomes bioavailable and may enter the food chain. (*See id.* at 841-842, 995; Ex. 101) Microbes and sunlight can also cause demethylation, and methylation is inhibited by both high and low sulfur levels. (Almendinger, Tr. at 842, 847) The Petitioners assert that studies have demonstrated that changes in the water levels of wetlands can increase methylation, and since the pipeline construction could change water levels in wetlands, the construction could increase methylmercury concentrations. (*Id.* at 842-843) However, wetlands are subject to natural changes in water levels annually. (*Id.* at 877) The studies that the Petitioners' expert relied on focused on how sulfate additions to wetlands, or how droughts lasting up to nine months and causing large 18-inch drops in water table elevation, altered methylmercury production. (*Id.* at 840, 998) Here, the Petitioners are not alleging that the Project will load sulfate in any way, nor are they alleging it will cause droughts like those in the studies. (*Id.* at 878) The most the expert could say was that construction "could" increase methylation, but he was not able to indicate the likelihood or what change, if any, could be attributable to the Project instead of natural variation, or how that impact could be measured. (*See id.* at 878-879, 885, 995, 998) Without that link to show that the change in methylmercury is caused by the Project, the concern is insufficient to find that the Project *will* result in the significant adverse impact of increased methylmercury.

Based on the preponderance of the evidence presented, the Petitioners did not demonstrate that the activities authorized by the permit related to wetlands did not meet state requirements and wetland permitting standards, nor did they establish that the Department did not have adequate information to determine whether the permitting standards were met.

¹⁵ The specific mitigation requirements are discussed in Issue 2.

¹⁶ Ms. Haller, an environmental analysis and review specialist for the Department, testified that after Enbridge incorporated comments and changes that the Department identified as important to protect public rights features, protect water quality, and protect fisheries and wildlife habitat in the final version of its plans, then she was able to say that the Project was "not going to result in significant environmental consequences." (Haller, Tr. at 4919, 5013)

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Issue 2: Whether wetland compensatory mitigation required by Permit #IP-NO-2020-2-N00471 meets state wetland mitigation requirements under Wis. Stat. § 281.36(3r) and Wis. Admin. Code Ch. NR 350 or whether additional or modified conditions are required.

To ensure that unavoidable wetland losses are offset by the restoration, enhancement, or creation of other wetlands, the law requires wetland compensatory mitigation. Wis. Admin. Code Ch. NR 350. Wis. Stat. § 281.36(3r) requires the Department to establish and maintain a wetland mitigation program. The program requires applicants to compensate for unavoidable adverse impacts to wetlands.

The use of a wetland mitigation bank is generally preferred over the use of the state's in-lieu fee program and permittee-led mitigation. Wis. Stat. § 281.36(3r)(b); Wis. Admin. Code §§ NR 350.004(4), 350.005(2)(b) (assigning mitigation banks a lower standard mitigation ratio compared to the in-lieu fee program) (*see also* Storlid, Tr. at 2773) The wetland mitigation banking program is a system designed to offset unavoidable wetland losses by allowing a project owner to purchase credits from restored sites. Once a restored site gets approval from the USACE and the Department, the site sells credits to permittees that require compensatory mitigation. The purpose is to try to ensure no net loss of wetlands by offsetting impacts. (*Id.* at 2773-2774) Wisconsin is divided into 12 watershed-based service areas, and a bank can generally only sell credits to projects located within its specific service area. Wis. Admin. Code §§ NR 350.003(2), 350.003 note, 350.004. The USACE determines whether a credit is available to be purchased. 33 C.F.R. §§ 332.8(o)(8) and (9); Wis. Stat. § 281.36(3w)(b). (Storlid, Tr. at 2774) Credits are characterized by location and plant community type, and the system encourages replacement that matches both the type and location of the impacted area. *See* Wis. Admin. Code §§ NR 350.05(2), 350.004(2) (Storlid, Tr. at 2775-6) If a similar plant community is not available, then the ratios are elevated. (*Id.*)

Chapter NR 350 then establishes standards and procedures for wetland compensatory mitigation. The Department must determine the amount of mitigation required for adverse impacts “on a case-by-case basis based on the quality and type of wetlands impacted, the duration of the impacts, the measure of lost wetland function, and the location of the proposed mitigation.” Wis. Admin. Code §§ NR 350.005(1)-(2). The loss of wetland function as a result of the permitted activities must be compensated for with “an appropriate mitigation amount.” *Id.* The amount of credits required is expressed as a ratio – an amount of credit to be purchased per acre of wetland function impacted. (*Id.* at 2380) Only the ratio for direct impact (permanent loss of a wetland) is set in the regulations. Pursuant to Wis. Admin. Code § NR 350.005(2), the Department multiplies the acreage of direct impact by the mitigation ratio 1.2 if the permittee is purchasing credits from a mitigation bank, requiring a minimum of 1.2 credits per 1 acre of direct impact. Ratios for other impacts are left to the Department to determine. (*Id.* at 2380-2381) The Department *may* determine that mitigation is required for secondary impacts or temporary impacts to wetlands, but it is not mandated, nor is the compensation ratio fixed. Wis. Admin. Code §§ NR 350.005(3) and (4). (Thompson, Tr. at 2383)

The Petitioners assert that the amount of mitigation required under the permit does not meet the basic requirements of Wis. Admin. Code § NR 350.005(2) because the amount of

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mitigation required depends on the quality and acreage of wetlands impacted. Because they assert that the Department did not have adequate information about the location, extent, or quality of wetlands that would be impacted, the amount of mitigation the Department required is insufficient.

For the Project, Enbridge calculated the total amount of direct, permanent impact as 0.02 acres. (Ex. 630 at 1796-1800; Thompson, Tr. at 2385-2386) The total amount of conversion impact, converting one type of wetland to another type (e.g. forested wetland is being converted to low-lying vegetation in the permanent ROW and subject to monitoring) is 30.03 acres. The total amount of temporary impact, where the wetland will be impacted by construction and then permitted to return, is 32.76 acres. (Ex. 630 at 1796-1800) Enbridge then assigned different mitigation ratios to different types of wetlands, i.e. emergent, scrub-shrub, and forested, and subdivided these categories into different community types. Additionally, they separated wetlands that were graded high from medium and lower graded wetlands. Enbridge calculated that it should purchase a total of 35.13 credits, pursuant to the ratios. (*Id.*; Storlid, Tr. at 2777) After reviewing the credits available from the banks, Enbridge adjusted the total to 43.87 credits; they elevated the amount when the credits were out of kind. This was needed, e.g. for forested to emergent or shrub-carr to emergent in the ROW. (Storlid, Tr. at 2778) The Department reviewed the plan and requested 4.98 additional credits, requiring a total of 48.85 credits to be purchased by Enbridge. (*Id.* at 2778; Ex. 635 at 8, Ex. 224 at 64)

Enbridge purchased the credits from two compensatory mitigation banks, 46 North and Poplar River. (*Id.*; Thompson, Tr. at 2253) The Band's wetland expert, Ms. Thompson, a senior scientist and experienced wetland delineator, testified that she believed Enbridge's compensatory mitigation was insufficient. (Thompson, Tr. at 2142, 2150) Ms. Thompson expressed concerns that the 46 North Bank is a very young bank without verified tree plantings and demonstrated success, and it is 30 miles west of the start of the Project route in Ashland County. (*Id.* at 2253-2255; Exs. 224-226) She expressed concerns that the Poplar River Bank is even further, 60 miles from the Project, and that the first tree planting at the bank failed. (*Id.* at 2256-2260; Exs. 221-223, 227-234) Overall, she criticized Enbridge merging functions into one value, and also merging the categories of wetlands, which she believed downgraded their quality, which affected what credits were purchased. (*Id.* at 2260-2261)

However, on cross examination, Thompson confirmed that she did not know whether the Department only relied on Enbridge's averages, the merging of categories, when it reviewed the mitigation plan, or if it considered additional information. (*Id.* at 2274-2275) She also admitted that compensatory mitigation does not require a like community for a community replacement, nor does it require a one-to-one replacement for the impacted functional values. The credit basis is not broken down into individual functional values. (*Id.* at 2320-2321) Additionally, she agreed that the two banks were authorized by the USACE to release credits and that there are no mitigation banks selling credits located in the Bad River watershed, which she would prefer. (*Id.* at 2324, 2326-2327)

The exact compensation ratios to be used for this Project are in the Department's discretion. The evidence shows that the Department reviewed Enbridge's plans and then sought adjustments, requiring additional credits to be purchased. The credits were purchased from banks

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regulated by the USACE, which authorized the release of the credits that Enbridge purchased. The banks are in the Lake Superior bank service area, which is the service area for the Project. The Petitioners have not established that the wetland compensatory mitigation required by the permit fails to meet the requirements under Wis. Stat. § 381.36(3r) and Wis. Admin. Code Ch. NR 350.

II. Individual Waterway Permit

Chapter 30 of the Wisconsin Statutes, with chapter NR 320 of the administrative code, regulates activities in or over navigable waters to protect public rights, navigation, and water quality. The permit for the Project authorizes activities under sections 30.12, 30.20, and 30.123 of the Wisconsin Statutes. Each of these three statute sections shall be addressed separately below.

As a preliminary matter, the parties dispute whether a Wis. Stat. § 30.12 permit (governing structures in a waterway) is required for Wis. Stat. § 30.20 activities (governing dredging in a waterway), i.e. whether a structure permit is necessary because structures are temporarily put in the waterway before dredging can occur. The distinction is relevant because riparian ownership is required for a permit under § 30.12, but riparian ownership is not an element for permits under § 30.20.

Since the primary activity in a § 30.20 permit is dredging, any minor or temporary structures or deposits that are integral to the dredging process is covered under the same permit. *See* Wis. Admin. Code § NR 345.03(5) (defining dredging to include “any part of the process”); Wis. Admin. Code § NR 345.04(2)(c)5 (confirming installation of temporary control measures are authorized under the dredging permit). This clarifies that while the activities for this Project require a permit authorized under § 30.12 and § 30.20, Enbridge must meet the eligibility criteria where a § 30.12 permit is required (for permanent structures below the ordinary high water mark), but it does not need to meet the elements of § 30.12 in each location it is also authorized to dredge under § 30.20.

The Department granted the Petitioners a contested case hearing on three issues related to the Project crossing waterways. In the context of the three issues certified for hearing in this matter, the Petitioners allege that Enbridge is not eligible for the § 30.12 permit because Enbridge is not a riparian owner, that the permit is not in the public interest (or the Department did not have enough information to determine if it was in the public interest), and that Enbridge lacks a necessary incidental take permit.

Issue 3: Whether structures and deposits in navigable waters authorized by Permit #IP-NO-2020-2-N00471 meet state requirements and waterway permitting standards under Wis. Stat. § 30.12 or whether additional or modified conditions are required.

Wis. Stat. § 30.12 generally prohibits anyone from depositing any material or placing any structure upon the bed of any navigable water without a permit. The construction plan for the Project includes several activities that require placing structures and depositing materials into

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navigable waters below the ordinary high-water mark. The Department issued Enbridge the permit authorizing these activities in November 2024. (Ex. 631)

Under Wis. Stat. § 30.12(3m)(a), the Department may grant a permit to a riparian owner to build or maintain structures “for the owner’s use.” There are two aspects of this statute at issue in this case: whether Enbridge can bring on a riparian owner to have eligibility for a permit and whether Enbridge’s Project activities would be for the riparian owner’s use.

The Petitioners assert that Enbridge is not a riparian owner, so it lacks eligibility for a § 30.12 permit authorizing structures and deposits in waterways. Wis. Stat. § 30.12(3m)(a). The Band asserts that Enbridge bringing on riparian owners as co-applicants does not cure Enbridge’s ineligibility, because the permitted structure must be for the riparian owner’s own use, and a riparian right cannot be transferred to a non-riparian owner. Wis. Stat. § 30.12(3m). *See R.W. Docks & Slips v. State*, 2001 WI 73, ¶ 20-22, 244 Wis. 2d 497, 628 N.W.2d 781; *Anchor Point Condominium v. Fish Tale Pro.*, 758 N.W.2d 144, 150 (2008).

It is clear that § 30.12 permits are exclusively granted to riparian owners. Riparian rights are non-transferable; they are tied to the ownership of the land abutting the water. Wis. Stat. § 30.133 prohibits severing riparian rights to non-riparians. A riparian owner generally cannot convey or lease out these specific rights to a non-riparian through an easement or other agreement. However, in prior circumstances, the Department has allowed the riparian owner to provide formal written authorization or be a co-applicant for the § 30.12 permit. For complex waterway projects, it is common for a commercial entity to be the primary driver and one applicant for a § 30.12 permit, and then the riparian owner is included as another co-applicant to satisfy the statutory requirement that the person with the underlying right to the shoreline is consenting to the bed disturbance. (*See Callan*, Tr. at 5197-5198) The riparian owner must stay attached to the permit to provide the legal authority for the structure to exist at that specific location. In *Movrich v. Lobermeier*, the Wisconsin Supreme Court clarified that while the public has the right to use the water, the right to place a structure on the bed belongs to the riparian owner *or those with their express permission*. 2018 WI 9, ¶ 24, 379 Wis. 2d 269, 905 N.W.2d 807 (2018).

Here, Mr. Ben Callan, Director of the Waterways Program in the Division of External Services for the Department, testified that when the Department inquired whether Enbridge had riparian owner consent, Enbridge responded in November 2023 that they did have the required riparian consent. (*Callan*, Tr. at 5198, 5305-5306; Ex. 519 at 50) Enbridge filed Shoreline Protection Agreements, also referred to as Co-Applicant Agreements. (Ex. 312) Additionally, at the hearing, Enbridge proposed modifying the permit to require that Enbridge make the riparian owner a co-applicant for crossings where permanent bank stabilization measures would be used, otherwise Enbridge would not be authorized to place bank stabilization measures below the ordinary high-water mark. (*Callan*, Tr. at 5307-5309) Mr. Callan confirmed that this requirement would be the Department’s preference. (*Id.*)

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The proposed modification relates to Condition 182 of the permit (Ex. 631 at 19) and Condition 209 of the water quality certification (Ex. 633 at 26),¹⁷ which provides:

Bank stabilization structures shall be installed following the design plans in the Wetland and Waterway Restoration and Post-Construction Monitoring Plan in the ECP, as conditioned in this [permit/WQC], and as approved by the Department.

The proposed modification to the condition states:

Bank stabilization structures shall be installed following the design plans in the Wetland and Waterway Restoration and Post-Construction Monitoring Plan in the ECP, as conditioned in this [permit/WQC], and as approved by the Department. With respect to the crossings of Bay City Creek at FeatureID sase006p, Beartrap Creek at FeatureID sasb007i, Little Beartrap Creek at FeatureID sasa0471i, the unnamed tributary to the Brunswailer River at FeatureID sasc1006p; and the unnamed tributary to the Marengo River at FeatureID sase1015i, riprap or other permanent structures shall only be installed below the OHWM after a separate permit has been issued under Wis. Stat. s. 30.12 that includes the riparian owner(s) as co-permittees for those specified crossings.

Including a requirement for the riparian owner to be a co-applicant to a permit before permanent structures are installed below the ordinary high-water mark would provide clarity and transparency, and it would ensure compliance with Wis. Stat. § 30.12(3m)(a). It requires a separate § 30.12 permit, which would include the riparian owner as a co-applicant to concretely record the riparian owner's express consent, before any permanent structures would be installed in the waterway below the ordinary high-water mark. The Department confirmed that this would be its preference.

The proposed modification references five specific waterway crossings. These are the crossings that Enbridge anticipates installing permanent structures below the ordinary high-water mark as erosion control measures. However, testimony at the hearing indicates that the plans previously included a sixth location. (Watts, Tr. at 2513; Drake, Tr. at 2574) The modification is appropriate, and supported by the evidence, anywhere Enbridge anticipates installing a permanent structure in the waterway below the ordinary high-water mark. While the plans currently provide for these permanent structures at the five locations identified, the requirement is not limited to only those five locations, and the actual **modification** to the permit and water quality certification shall reflect that.

Bank stabilization structures shall be installed following the design plans in the Wetland and Waterway Restoration and Post-Construction Monitoring Plan in the ECP, as conditioned in this WQC, and as approved by the Department.

Permanent structures shall only be installed below the OHWM after a

¹⁷ Condition 182 of the permit (Ex. 631 at 19) and Condition 209 of the water quality certification (Ex. 633 at 26) are identical with the exception of "as conditioned in this permit" and "as conditioned in this WQC". The proposed modification to the language is also identical.

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separate permit has been issued under Wis. Stat. §. 30.12 that includes the riparian owner(s) as co-permittees.

Under these circumstances, this modification is appropriate and supported by a preponderance of the evidence in the record.

The second issue raised by the Petitioners is if Enbridge has riparian owner co-applicants, whether the Project then is for the owner's use. The term "owner's use" has been broadly interpreted to encompass activities, including commercial, industrial, or utility projects, that the owner has legally authorized to occur on their land. (*See Callan*, Tr. at 5197-5198) There is some support for this broad interpretation, albeit limited. In *ABKA Limited Partnership v. DNR*, that court confirmed that the Department has the authority to regulate structures based on their impact to the public trust, that the actual riparian owner must be a party to the permit, and that the regulated activities are not limited to personal recreation but extend to economic and commercial development. 2002 WI 106, 255, Wis. 2d 486, 648 N.W.2d 854 (2002). Wis. Stat. § 30.12(3m)(d)2. expressly mentions that the Department may not prohibit the issuance of individual permits for commercial purposes, in that instance referring to solid piers. In this interpretation, there is no restriction that the "owner's use" must be personal use, instead the focus is on the requirement for authority to use. And here, the specific permitted activity is for bank stabilization, which the owners have a long-term interest in.

With the modification discussed above to require a separate permit with the riparian owner as a co-applicant where permanent structures are installed below the ordinary high-water mark, the specific authority for use of the land would be clear. The Petitioners established that this separate permit is required.

Issue 4: Whether the removal of material from the beds of navigable waters authorized by Permit #IP-NO-2020-2-N00471 meets state requirements and waterway permitting standards under Wis. Stat. § 30.20 or whether additional or modified conditions are required.

Wis. Stat. § 30.20 generally prohibits anyone from removing or dredging any material from the bed of a natural navigable lake or navigable stream without a permit. The Department is required to issue an individual permit if it finds "that the issuance of the permit will be consistent with the public interest in the lake or stream." Wis. Stat. § 30.20(2)(c).

The Department determined that the proposed dredging is consistent with the public interest in navigable waters. (*Haller*, Tr. at 4963-4964, 4996-4997) The permit authorizes in-stream activities associated with trenching up to 72 waterbodies. (Ex. 308) Enbridge has identified that up to 26 waterways may require some blasting. (Ex. 381 at 20; Ex. 308 at 2) However, most of the waterways to be trenched are intermittent or ephemeral. (Ex. 385 at 36). Trenching may be done using either "dry crossing" or "open cut" techniques. Dry crossing involves placing dams, usually sandbags, to temporarily isolate a work zone from the rest of the waterway, with a pump to maintain downstream water flow. (Ex. 307 at 20-25). The "open cut," also called "wet trench" does not. The permit requires work zone isolation in any waterway with standing water. (Ex. 631 at 19) The permit also requires a civil survey to be completed of the stream bed, after isolation, to provide a baseline for restoration. (Ex. 630 at 1724) The stream

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bed substrate above shallow bedrock must be excavated and segregated before any trenching or blasting is done, and the stream bed and banks must be restored to original elevations and features. The permit limits the duration of any impacts to 24-48 hours, depending on the size of the waterway. (Ex. 631 at 42) Additionally, the pipeline will be buried to limit any impact of the waterway to the public interest in use, recreation, or natural scenic beauty.

Three specific concerns raised by the Petitioners include (A) impacts caused by blasting, (B) whether the permit is consistent with the public interest, and (C) Enbridge's failure to obtain an incidental take permit before it obtained the waterway permit. Each of these shall be addressed in more detail.

A. Blasting

The Environmental Petitioners take issue with the permit allowing Enbridge to remove material from the bed by blasting. They assert blasting risks significant impacts to the public interests because it will create and extend fractures in bedrock beyond the trench, which could create new hydrological connections. They argue that the Department has not adequately assessed these risks because they do not know all locations that blasting could occur and they lack geotechnical information to analyze the blasting impacts.

The Environmental Petitioners' expert geologist, Mr. B.J. Bonin, opined that blasting would have a larger effect and larger impact than Enbridge or the Department discussed because the blasted rock will be much more conducive to infiltration of water. (Bonin, Tr. at 415-417) He expressed concerns over the use of sheet piling and the risk that it may pierce an artesian aquifer. (*Id.* at 484-485) Similarly, Dr. Jesse Hampton, another of the Environmental Petitioners' experts, expressed criticism of the lack of site-specific information for blast locations prior to the permit being issued. (Hampton, Tr. at 674-675)

On cross-examination, Mr. Bonin agreed that the Department only allowed the use of sheet piling where it was necessary for personal safety during construction. (Bonin, Tr. at 488-489, 501, referencing Ex. 631 at 20 (condition 196)) He also admitted that the Department and Enbridge made an effort to assess the risk of sheet pilings piercing an aquifer. (The EIS contained an aquifer analysis, which found artesian groundwater conditions at Vaughn Creek at a depth of 128 feet and at Billy Creek at a depth of 42.5 feet. (Bonin, Tr. at 489-494, referencing Ex. 816, Ex. 824 at 517, 1202)) Enbridge also hired Lake Superior Consulting to determine the likelihood of encountering artesian conditions, and the study found a potential at 80-90 feet. (Bonin, Tr. at 496) Finally, Barr Engineering analyzed data and classified areas of the project in terms of risk for encountering artesian conditions, and in areas of medium risk or higher, recommended additional investigation. (Bonin, Tr. at 497-499, referencing Ex. 313, Ex. 807 at 91) Enbridge completed this recommended investigation, which included using hand probes and hand augers to assess the potential for confined aquifer conditions in areas that may require sheet pile. (Bonin, Tr. at 500, referencing Ex. 816 at 4)

The strength of Dr. Hampton's criticism also weakened on cross. He agreed that Enbridge should not have been required to provide site-specific blast plans prior to permitting and agreed that Enbridge is required to generate these site-specific plans prior to blasting. (Hampton, Tr. at

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676-677) A majority of the data and site-specific information that both Bonin and Hampton advocate the Department should have reviewed prior to permitting not only has not been required in other projects, it also would only be available once the vegetation was cleared from the right-of-way, and it would not be appropriate for this clearing to occur prior to permitting.

The Petitioners have not established that the permit conditions permitting blasting fail to meet the state requirements and waterway permitting standards.

Nonetheless, Enbridge proposed a modification to the permit to provide for additional geotechnical borings prior to sheet piling to further investigate potential artesian conditions to further mitigate risk. Enbridge contractors conducted geotechnical borings to characterize the subsurface geology in areas where HDD transects were anticipated. (Bratton, Tr. at 1662) Dr. John Bratton, Senior Science Officer at Limno Tech, opined that this analysis was insufficient to detect all artesian conditions along the Project route. (*Id.* at 1662-1663) Mr. Barry Simonson, Director of Projects for Enbridge, proposed that Enbridge could perform additional geotechnical borings before using sheet pilings. (Simonson, Tr. at 3201) Mr. Callan, Waterways Program Director, agreed that this modification would reduce the risk of breaching an artesian aquifer from sheet piling and give the Department more assurance. (Callan, Tr. at 5310)

The proposed modification relates to Conditions 196 and 221 of the permit (Ex. 631 at 20, 22), and Conditions 61 and 223 of the water quality certification (Ex. 633 at 10, 27).¹⁸ Condition 196 of the permit and Condition 61 of the water quality certification provides:

You shall minimize the width of the trench through [waterways/wetlands] as specified in the ECP. Where support is needed in the trench due to depth, soil type, or soil saturation, use of trench boxes shall be considered first. Sheet piling shall only be used where necessary for personnel safety.

The proposed modification to the condition states:

You shall minimize the width of the trench through [waterways/wetlands] as specified in the ECP. Where support is needed in the trench due to depth, soil type, or soil saturation, use of trench boxes shall be considered first. Sheet piling shall only be used where necessary for personnel safety. *Prior to using sheet piling, you shall conduct geotechnical borings at the location of the anticipated use of sheet piling deeper than the expected depth of the sheet piling to assess potential Artesian conditions at that site. If Artesian conditions are encountered at a depth that would give rise to a risk of an Artesian aquifer breach, a construction method shall be used at that location that does not require the use of sheet piling.*

¹⁸ Condition 196 of the permit (Ex. 631 at 20) and Condition 223 of the water quality certification (Ex. 633 at 27) are identical and relate to waterways. Condition 221 of the permit (Ex. 631 at 22) and Condition 61 of the water quality certification (Ex. 633 at 10) are identical and relate to wetlands. All four conditions are identical with the exception of the reference to “wetland” or “waterway.” The proposed modifications to the language of all four Conditions are also identical.

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Based on the testimony from Dr. Bratton, Mr. Simonson, and Mr. Callan, the preponderance of the evidence supports the modification of the permit and water quality certification in this manner because it would further reduce the risk of breaching an artesian aquifer.

B. Public Interest

The Band further contends that the permitted activities generally fail to meet the “public interest” standard under Wis. Stat. Chapter 30. Their argument is not limited to waterways, but focuses on many aspects of the Project, such as clearing vegetation, that could have a long impact on the area. This argument is unpersuasive. First, while it introduces broad environmental concerns and claims to be addressing Issues 3, 4, and 5, it is not tied to the specific issues identified for hearing, i.e., structures and deposits, removal of material from beds, and temporary clear span bridges. Second, the Band’s argument is not based on specific evidence. The Petitioners have not provided evidence linking construction activities to a violation of Wis. Stat. §§ 30.12, 30.20, or 30.123, or countering the evidence presented by the Department of their assessment of what was in the public’s interest.

In reviewing the public interest standard, the Department looked “at the potential effects associated with water quality, with public use navigation access and habitat, fisheries, wildlife habitat and then aesthetics, natural scenic beauty.” (Callan, Tr. at 5170) It looked at each of the aspects individually, and then also looked at the potential for the project to be part of a broader, cumulative effect. (*Id.*) The Department requested additional construction plan details and modifications to construction techniques to minimize impacts. (*Id.* at 5171) For example, the Department looked for ways to further reduce or eliminate impacts to the Project’s crossing high quality trout cold water systems. (*Id.*) It also looked for ways to ensure that there would not be a permanent or long-term impact associated with the regulated activity, which included making water crossings as perpendicular to the resources as possible, isolating the work zone to mitigate total suspended solids downstream, and ensuring that there were not sensitive components in the location of the crossing such as pools, riffles, or runs. Duration of the impacts was relevant to its analysis, because “the longer the disruption occurs, the more likely [it is] that there will be a conflict with a public trust issue.” (*Id.* at 5176, 5184) The Department required work zone isolation systems to ensure that construction activities below the ordinary high-water mark are isolated from the normal flow and habitat of the remainder of the water resource. (*Id.* at 5177) The Department concluded that the removal of material from the bed of the waterway is consistent with the public interest. (*Id.* at 5172-5173) It determined that if the construction is done according to the plans and the conditions of the permit, the impacts would not be sustained or have long-term effects on a resource. (*Id.* at 5184) The Petitioners failed to provide evidence showing that this determination was inconsistent with applicable legal standards.

C. Timing of the Incidental Take Permit

Finally, the Band asserts that Enbridge did not receive all necessary incidental take permits or demonstrate avoidance of impacts to endangered and threatened species *before* the Department reviewed and issued the wetland and waterway permit. The Band is correct that pursuant to Wis. Admin. Code §§ NR 329.04(3)(a)2 (implementing individual permits under §

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30.12), NR 345.04(3)(a)2 (implementing individual permits under § 30.20), and NR 320.06(5)(h) (implementing bridge permits under § 30.123), a project must either receive an incidental take authorization under Wis. Stat. § 29.604, or avoid impacts to endangered or threatened species, *before* the Department may consider the application for the waterway permit complete.

The evidence in this case focused on potential impacts to two plant species, Braun's holly fern and sweet coltsfoot. Sweet coltsfoot is a threatened plant found in marshes and forests or swamp openings. (Rowe, Tr. at 5122) It was found along an existing forest road that Enbridge planned to use during construction, but Enbridge modified its plans and elected to not use that access road. (*Id.* at 5121-5122; Drake, Tr. at 2538-2539) Because of the modified plans, no further action or incidental take permit was required for sweet coltsfoot. Braun's holly fern is a state-threatened plant that is found in woodlands, typically in seepages or ravines, and as part of the endangered resources review, it was found within the Project area. (Rowe, Tr. at 5113-5114) Additional surveys were conducted, and as part of the Department's review, it determined that two plants of this species would be directly impacted by Project activities and could not be avoided. (*Id.* at 5115-5116) Enbridge applied for, and received, an incidental take permit for Braun's holly fern. (*Id.*, referencing Ex. 386). The application process includes submitting a conservation plan to the Department, which outlines the project activities, the species being impacted, what those impacts are, and it includes alternative actions and minimization and mitigation measures. (Rowe, Tr. at 5116) Enbridge developed a conservation plan to relocate the plant to an adjacent area outside the Project workspace and monitor it after replanting. (Drake, Tr. at 2538)¹⁹

The combined wetland and waterways permit was issued on November 14, 2024. (Ex. 631) The incidental take permit was issued on September 3, 2025. (Ex. 386) The wetland and waterways permit contained a condition requiring all construction activities to be conducted in accordance with "Enbridge's Incidental Take Permit/Authorization that will be required as part of the Project." (Ex. 631 at 10, condition 84) The Band argues that this condition is insufficient because the incidental take permit was required before the application for the wetland and waterways permit could be considered complete.

The Band has not established that the Project activities impacting Braun's holly fern are regulated under Wis. Stat. §§ 30.12, 30.20, and 30.123, which apply exclusively to navigable waters. Evidence from the hearing and the incidental take permit reference that the construction activities at the site of this species are in a wetland, with no further evidence suggesting the presence of navigable waters at these locations. (Ex. 386 at 1 (referencing the reduced construction right-of-way width for wetlands at the site of Braun's holly fern); Thompson, Tr. at 2227-2228) In the absence of such evidence, the Band fails to show that Wis. Admin. Code §§ NR 329.04(3)(a)2, 345.04(3)(a)2 and NR 320.06(5)(h) are applicable here, and as a result, that the incidental take permit was required before the waterways permit could be issued.

¹⁹ Threatened and endangered plants are not regulated on private lands. The occurrence in this Project is on public lands, and the proposed relocation is to adjacent public lands, so the relocated plant would still be regulated. (Rowe, Tr. at 5118-5119) While the relocation site is usually selected in a desk review, here, Enbridge and a Department botanist went into the field to review and determine the relocation site. (*Id.* at 5119)

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Additionally, Enbridge proposed modifying the permit to clarify that the incidental take permit has been issued. The proposed modification relates to Condition 84 of the permit (Ex. 631 at 10), Finding of Fact 77 of the permit, (*Id.* at 44-45) and Finding of Fact 77 of the water quality certification (Ex. 633 at 48).²⁰ Condition 84 of the permit provides:

All construction activities shall be conducted in accordance with the avoidance and minimization measures for rare species as stated in Enbridge's Incidental Take Permit/Authorization that will be required as part of the Project.

The proposed *modification* to the condition states:

All construction activities shall be conducted in accordance with the avoidance and minimization measures for rare species as stated in Enbridge's Incidental Take Permit/Authorization that *has been obtained and/or* will be required as part of the Project.

Finding of Fact 77 provides:

The Project, if constructed in accordance with this permit and protection measures required and recommended by the Department's Office of Energy Endangered Resources Energy Liaison, will avoid and minimize impacts to endangered resources. Enbridge is required by this permit to use upland seed mixes that contain $\geq 99\%$ native species (use of *Lolium perenne* is acceptable). Most recommended actions will be followed by Enbridge using a native seed mix as part of restoration as well as completing tree clearing during winter months. For those state-listed endangered resources that cannot be avoided, an Individual Incidental Take Permit will be issued or a Broad Incidental Take Permit that has already been issued will ensure take of those species is minimized pursuant to Wisconsin's Endangered Species Law (29.604, Wis. Stats.).

The proposed *modification* to the finding of fact adds to the end: *Enbridge has obtained an Individual Incidental Take Permit for Braun's Holly Fern.*

Including information that the incidental take permit has been issued provides clarity, and it incorporates the conditions of the Incidental Take Permit into the enforceable conditions of the construction permit. Under these circumstances, a clarifying modification is appropriate.

Issue 5: Whether temporary clear span bridges authorized by Permit #IP-NO-2020-2-N00471 meet state requirements and waterway permitting standards under Wis. Stat. § 30.123 or whether additional or modified conditions are required.

Wis. Stat. § 30.123 generally prohibits anyone from constructing or maintaining a bridge or culvert in, on, or over navigable waters. The Department is required to issue an individual permit if it finds that the bridge will not materially obstruct navigation, will not materially reduce

²⁰ Finding of Fact 77 of the permit (Ex. 631 at 44-45) and Finding of Fact 77 of the water quality certification (Ex. 633 at 48) are identical. The proposed modification to the language is also identical.

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the effective flood flow capacity of a stream, and will not be detrimental to the public interest. Wis. Stat. § 30.123(8)(c).

The construction plans for the Project include the installation of approximately 187 temporary clear span bridges (TCSBs), and the permit issued by the Department provides for these TCSBs. (Ex. 631; Ex. 633) Conditions 152-169 detail the installation, signage, removal, inspection, monitoring, and maintenance of TCSBs. (Ex. 631 at 16-17) Additionally, the permit specifies that it does not authorize any in-stream supports for TCSBs. (*Id.*) Condition 100 requires TCSBs as a best management practice prior to beginning in-water work where grading will occur prior to installation. (*Id.* at 12) Condition 129 limits the placement and removal of TCSBs, and any in-water work, to specific times to minimize adverse impacts on fish movement, fish spawning, and egg incubation periods. (*Id.* at 15) The Department found that the TCSBs will not materially obstruct navigation, because they will span from bank to bank and not have any in-stream supports and Enbridge will allow safe portage around restricted areas of the ROW to anyone navigating public waterways. (*Id.* at 43) The Department also found that the TCSBs will not materially reduce the effective flood flow capacity of any streams because they will be temporary, not be installed during high water levels or flooding, and not require dredging for installation or removal. (*Id.*) Finally, the Department found that the TCSBs will not be detrimental to the public interest because of the limited disruption to navigation and recreation, placement and removal timing is specified by the permit to avoid impacts to aquatic species, and the use of TCSBs will minimize impacts to water quality, aquatic habitat, and anticipated flows. (*Id.* at 44)

The Environmental Petitioners argue that TCSBs can impact surface waters through soil compaction and redistribution, pollutants from vehicles, and blocking high water flow. They argue that the Department erred by not requiring site-specific evaluations prior to issuing the permit. However, the Petitioners fail to identify any statutory or regulatory authority that mandates such evaluations. To the contrary, Wis. Stat. § 30.123(8)(c) mandates that the Department shall issue an individual permit if it finds (1) that the bridge will not materially obstruct navigation, (2) that the bridge will not materially reduce the effective flood flow capacity of a stream, and (3) the bridge will not be detrimental to the public interest. The Department made each of these findings in the permit, and as a result it was required to issue the permit instead of demanding evaluations. Consequently, the Petitioners' critique of the Department's process fails to meet their burden of proof.

III. Water Quality Certification

In Wisconsin, a water quality certification is required under Section 401 of the Clean Water Act when a project requires a federal license or permit for an activity that may result in a discharge to waters of the United States. 33 U.S.C. § 1341; Wis. Stat. §§ 281.11 and 281.12; Wis. Admin. Code § NR 299.03. Projects that require an individual wetland and waterway permit require a water quality certification review as part of the permit process to be sure the project will meet specific water quality certification standards. The standards are the baseline rules established by the Department to protect the state's waters. They include specific limits, either in numeric or narrative form. The Water Quality Certification is a project-specific document from the Department certifying that a proposed activity does not significantly degrade the state's water

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resources. After an applicant applies for a federal permit, if the project affects Wisconsin water, then the Department performs a water quality certification review comparing the project plans to the water quality standards. If the Department denies certification, the federal permit cannot be issued. If the Department finds that the proposal will not cause a violation of Wis. Admin. Chapters NR 102 or 103, the Department grants the certification with conditions to ensure that the standards are met.

Here, the Department granted Enbridge a Water Quality Certification, with 231 conditions for the Department to confirm that the Project will comply with Wisconsin's clean water quality standards.

Then, the Petitioners were granted a contested case hearing on one issue related to water quality standards:

Issue 6: Whether activities authorized by Permit #IP-NO-2020-2-N00471 meet state water quality certification standards under Wis. Admin. Code § NR 299.04 or whether additional or modified conditions are required.

Wis. Admin. Code § NR 299.04 requires the Department to “determine whether it has reasonable assurance that the proposed activity will:

- (a) Result in any discharge; and
- (b) Comply with the following water quality standards:
 1. Effluent limitations adopted under s. 283.13, Stats., and 33 USC 1311, for categories of discharges;
 2. Water based related effluent limitations adopted under s. 283.13 (5), Stats., and 33 USC 1312;
 3. Water quality standards adopted under s. 281.15, Stats., and 33 USC 1313;
 4. Standards of performance adopted under s. 283.19, Stats., and 33 USC 1316;
 5. Toxic and pretreatment effluent standards adopted under s. 283.21, Stats., and 33 USC 1317;
 6. Public interest and public rights standards, related to water quality, set forth in ss. 30.03, 30.10, 30.11, 30.12, 30.123, 30.13, 30.15, 30.18, 30.19, 30.195, 30.196, 30.20, 30.202, 30.206, 30.21, 31.02, 31.05, 31.06, 31.07, 31.08, 31.12, 31.13, 31.18, 31.23, 88.31 and 281.15, Stats., and made applicable by 33 USC 1341 (d);
 7. Any other appropriate requirements of state and federal law as provided in ss. 281.17 (10) and 281.36 and 33 USC 1341 (d).”

Here, the Petitioners assert that the Department lacked reasonable assurance that the Project will comply with the enumerated standards.

The Band asserts that conserving ecosystems where wild rice can thrive is critical. (Tillison, Tr. at 1314) The Marengo River and Beartrap Creek watersheds are priority watersheds for the Band because they support wild rice waters in the Kakagon and Bad River sloughs. (*Id.* at 1387-1393, 2256; Ex. 209) Unstable hydrologic conditions in the watershed, excess sediment, terrestrial habitat fragmentation and alteration, loss and fragmentation of aquatic habitat, excess

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nutrients, and high bacteria count all pose risks to these sensitive ecosystems. (Tillison, Tr. at 1392-1393; Ex. 209 at 14; Ex. 238 at 1322-1323) The Band is concerned that the Project's changes to the landscape could exacerbate these risks. The Environmental Petitioners argue that the Department lacks reasonable assurances that the Project will comply with the water quality standards because the baseline data is insufficient and because Enbridge inflated natural variability and understated localized Project impacts.

While the Band expresses concern regarding potential impacts, they have failed to provide evidence demonstrating that the authorized activities will, in fact, violate state water quality standards. The fears that they express are fears; they lack evidence showing that these changes will occur and impact water quality. Similarly, the Environmental Petitioners argue that more baseline data should be required, or that the data should be analyzed in a different manner, but they have failed to establish that such steps are required.

The Department's certification review was extensive, and it required modifications to Enbridge's Water Quality Monitoring Plan before the certification could be given. Macaulay Haller is an environmental analysis and review specialist for the Office of Energy in the Department. (Haller, Tr. at 4919) She reviews wetland and waterway permit applications for utility energy projects. (*Id.*) She previously worked in the Department's water evaluation section, and in that role, she prepared and reviewed water quality monitoring plans. (*Id.* at 4920) Working with the Department's staff in storm water, fisheries, wetland, forestry, and wildlife, and working with USACE and the Environmental Protection Agency, she reviewed Enbridge's water quality monitoring plan, beginning in January 2023. (*Id.* at 4922-4924) Additionally, she made two site visits along the Project route in June and October 2023, and she visited another Enbridge project site in Illinois in winter 2023, to observe the construction of a large pipeline crossing a waterway. (*Id.* at 4925) She reviewed Enbridge's Water Quality Monitoring Plan to see if she could affirm that the Project activities meet state water quality certifications. (Ex. 495) Initially, it did not.

The Department requested additional information from Enbridge and requested modifications to the plan. In 2023, Enbridge visited the 204 waterways in the Project area, collected upstream and downstream samples from each containing sufficient water, and analyzed each sample for approximately thirty chemical, physical, and biological parameters. (Ledder, Tr. at 1152-1153) Additionally, Enbridge collected samples from each of the 435 wetlands crossed by the Project that had standing water. (Ex. 829 at 13-14) Enbridge then repeated this sampling in 2024. Enbridge also analyzed available historical water quality data from federal, state, and tribal entities, collecting nearly 30,000 additional stream-specific data points. (Ex. 830 at 15-17)

The Department identified sediment as the primary water quality parameter of concern, and the Department, Enbridge, and their consultants analyzed each sediment source and modeled using conservative assumptions. (Ex 843 at 93-185; Ex. 376 at 38-39) The Department modeled potential erosion over various construction durations and concluded that the Project's anticipated sediment discharges will comply with water quality standards. The Department and Enbridge also evaluated other parameters including water surface temperature, dissolved oxygen, pH, phosphorus, nitrogen, bacteria, per- and polyfluoroalkyl substances (PFAS), polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and heavy metals, including

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mercury. (Ex. 376) Again, the analysis concluded that the Project would comply with water quality standards. (*Id.*)

Following the exchange of this information and the modifications to the plan, which included adding the baseline sampling in 2023 and 2024, requiring monitoring of all 204 waterways in the Project area, adding over 20 additional water quality parameters for analysis, and implementing a Quality Assurance Project Plan, the Department then concluded it had reasonable assurance that the Project will comply with Wisconsin's water quality standards by requiring that Enbridge monitor water quality as detailed in the Water Quality Monitoring Plan. (Callan, Tr. at 5233; Haller, Tr. at 4969-4972, 4978-4979, 5009-5013; Ex. 633; Ex. 829; Ex. 554) The Petitioners failed to establish that the information the Department reviewed was so incomplete or inaccurate that reasonable assurance could not be reached.

IV. Environmental Impact Statement

Wis. Stat. § 1.11, also known as the Wisconsin Environmental Policy Act (WEPA), requires all state agencies to determine whether a proposed action significantly affects the quality of the human environment, and if the answer is affirmative, then it must prepare an Environmental Impact Statement (EIS). Wis. Stat. § 1.11(2)(c). Wis. Admin. Code § NR 150.30 outlines the procedures for EIS analysis; it specifies how the Department evaluates major actions that may significantly affect the environment.

An EIS is an informational tool that allows an agency to take a “hard look” at the environmental consequences of a proposed action. *Clean Wisconsin, Inc. v. Pub. Serv. Comm'n of Wisconsin*, 2005 WI 93, ¶ 189, 282 Wis. 2d 250, 375. An EIS does not compel a particular decision. *Id.*, ¶ 188. When an EIS is challenged, it is assessed in light of the “rule of reason.” *Id.*, ¶ 191. It is required to contain “only such information as appears to be reasonably necessary under the circumstances for evaluation of the project rather than to be so all-encompassing in scope that the task of preparing it would become either fruitless or well nigh impossible.” *Id.*

The Department granted the Petitioners a contested case hearing on two issues related to the EIS. The Petitioners allege that the Department improperly described the purpose of the Project, failed to consider all reasonable alternatives to the Project, and that the EIS contained an incomplete environmental analysis. For the reasons stated below, the Petitioners' arguments fail.

Issue 7: Whether the Department's Final EIS described the purpose of the proposed project and reasonable alternatives to the proposed project in accordance with Wis. Stat. § 1.11(2)(c)3. and Wis. Admin. Code §§ NR 150.30(2)(b) and (e).

Wis. Admin. Code § NR 150.30(2)(b) requires an EIS to contain a “description of the purpose of the proposed project.” In the Final EIS, the Project Purpose & Need is described in Section 1.3:

Enbridge's stated purpose for the proposed project is to continue transporting crude oil and NGLs [natural gas liquids] through its Line 5 pipeline, while decommissioning that portion of the line that crosses the Bad River Reservation.

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(Ex. 807 at 31) That EIS section continues to discuss the specific products that Line 5 transports and volume of those products. (*Id.*)

The Petitioners argue that the Project's purpose is overly narrow, and by defining the Project narrowly, the Department implied an outcome and limited its consideration of alternatives. By framing the purpose only as a means for *Enbridge* to transport *its Line 5 products*, the Department did not consider what the Petitioners believe to be the most likely outcome if Line 5 were shutdown, which is transportation of the Line 5 products by multiple modes, a hybrid use of existing pipelines, rail, and waterborne alternatives.

It has been the Department's standard practice to state the applicant's project purpose in an EIS. (Mednick, Tr. at 3564) Dr. Adam Mednick, Environmental Analysis and Review Specialist-Advanced and WEPA Coordinator for the Department testified that neither Wis. Stat. § 1.11 or Wis. Admin. Code § NR 150 "provides any direction, basis, or means for the Department to discern public purpose from a private proposed project." (*Id.* at 3565; Ex. 50 at 1) Adopting the applicant's proposed purpose in this instance is appropriate because the Department's role is to evaluate the impacts of the private proposal, not a government-proposed undertaking.

The Petitioners do not specifically state how they believe the Department should have stated the Project's purpose, nor have they established that the Department's stated purpose in the EIS, which was also *Enbridge's* stated purpose, was unlawful. Instead, they argue it was framed too narrowly, which then limited the alternatives considered. Specifically, the Environmental Petitioners argue that the EIS considered the alternatives of other existing pipelines, rail, and waterborne alternatives independent of each other, but should also have considered these alternatives as a combined hybrid alternative.

Wis. Stat. § 1.11(2)(c)3. requires that "[a]lternatives to the proposed action" be included in an EIS. Similarly, Wis. Admin. Code § NR 150.30(2)(e) requires an EIS to contain a "list of reasonable alternatives to the proposed project, particularly those that might avoid all or some of the adverse environmental effects of the project, including a description of proposed preventive and mitigating measures and an explanation of the criteria used to discard certain alternatives from additional study." The Final EIS contained an analysis of route alternatives, a discussion of alternatives to the proposed Project, and a "No Action Alternative Analysis," which is consideration of the effects anticipated if the Department did not approve sufficient permits for the Project. (Ex. 807 at 4)

In the EIS, the Department identified that alternatives to the Project included transporting Line 5 products by other existing pipelines, rail, and water. However, the Department also determined that these alternatives were outside the scope of the EIS. (Ex. 807 at 147) Whether considered independent of each other, or in a hybrid combination, they still exceed the scope of the EIS. As the Department explained, it does not have the ability to compel *Enbridge* to use another form of transport, *Enbridge* does not have the means for these other forms of transport, and the Department cannot compel the public to consume alternative energy or practice energy conservation. (Ex. 807 at 147; Ex. 50 at 11) It is unnecessary for the Department to consider the separate alternatives also as a hybrid alternative when it has determined that it exceeds the scope of the EIS and the Petitioners have not challenged the scope.

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The law provides that reasonable alternatives be considered, but the Department is not required to evaluate every potentiality. *Clean Wisconsin*, ¶ 191. “No matter how exhaustive the discussion of environmental impacts in a particular EIS might be, a challenger can always point to a potentiality that was not addressed.” *Id.* (quotations omitted). The evidence presented supports the conclusion that the Department’s EIS contained a project purpose and provided alternatives to the project in accordance with the law. The Petitioners have not met their burden to establish, by a preponderance of the evidence, that these elements of the EIS were legally deficient.

Issue 8: Whether the EIS contained a complete environmental analysis in accordance with Wis. Stat. § 1.11(2)(c) and Wis. Admin. Code §§ NR 150.30(2)(f), (g), and (h).

Wis. Admin. Code § NR 150.30(2) identifies the required content of an EIS. It mandates that an EIS “emphasize environmental issues relevant to the evaluation of the action and provide a level of detail commensurate with the complexity of the action.” It continues to list the requirements, specifically incorporating Wis. Stat. § 1.11(2)(c), and includes the following:

(f) A description of the human environment that will likely be affected by the proposed project and alternatives to the proposed project.

(g) An evaluation of the probable positive and negative direct, secondary and cumulative effects of the proposed project, and alternatives to the proposed project, on the human environment, including all the following:

1. Effects on scarce resources such as: archeological, historic or cultural resources, scenic and recreational resources, prime farm lands, threatened or endangered species, and ecologically critical areas.
2. A summary of the adverse environmental effects which cannot be avoided.
3. Consistency with plans or policies of local, state, federal, or tribal governments.
4. The relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitments of resources.
5. The potential to establish a precedent for future actions or to foreclose future options.
6. The degree of risk or uncertainty in predicting environmental effects or effectively controlling potential deleterious environmental impacts, including those relating to public health or safety.
7. The degree of controversy over the effects on the quality of the human environment.

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(h) Identification of information that is incomplete or unavailable and a description of the relevance of such information.

Wis. Admin. Code §§ NR 150.30(2)(f)-(h).

The Petitioners argue that the Department failed to appropriately (1) describe the human environment to be affected, (2) evaluate direct, secondary, and cumulative effects, and (3) identify and describe the relevance of information that is incomplete or unavailable.

The EIS in this case included a description of the human environment to be affected by the Project and alternatives to the Project, as required by Wis. Admin. Code § NR 150.03(2)(f). The Department did an in-depth review of the affected human environment. (Callan, Tr. at 5199-5200) Table 3.2-1 lists the many components and functions of the human environment considered, including noise, air quality, climate, geology and groundwater, surface water quality, and public health and safety. (Ex. 807 at 135) A description of these components are then discussed in chapters 4-7 of the EIS. Additionally, it considered three route alternatives and a No Action alternative, and the effects of these alternatives, in the EIS. (Ex. 807 at 142-153, 824-844; Callan, Tr. at 5202)

The EIS also included an evaluation of direct, secondary, and cumulative effects as required by Wis. Admin. Code § NR 150.30(2)(g). As the Department pointed out as examples in its brief, Sections 5.1-5.4 describe temporary direct effects of construction activities. Sections 5.5-5.15 describe long-term direct, indirect, and cumulative environmental and socioeconomic effects of the relocated pipeline's construction and operation. Section 5.16 describes the discrete effects specified in Wis. Admin. Code §§ NR 150.30(2)(g)1.-8. (Ex. 807)

Finally, the EIS identified gaps in information that was available, and how it was relevant as required by Wis. Admin. Code § NR 150.30(2)(h). For example, the Department did not have a traditional baseline survey for waterway conditions, and in response, requested additional information from Enbridge and created new models or used existing models to predict impacts to receiving waters. (Ex. 807 at 414; Watermolen, Tr. at 3620-3621) Similarly, the Department identified that the route had not been extensively surveyed as it relates to the distribution and abundance of wildlife species, and the Department developed occupancy models to predict the most likely locations for species along the different proposed routes. (Ex. 807 at 576)

The arguments presented by the Petitioners on this issue highlight the Petitioners' disagreement with the Department's characterizations of temporary impacts and Enbridge's characterizations of wetlands and their functional values. The Band also raises the issue of timing – for example, much of the information that the Department needed to grant the water quality certification was not provided by Enbridge until summer and early fall of 2024, and the EIS was published in September 2024, so the Department could not have had a holistic picture of the Project's sediment impacts. These arguments fall short and lack evidentiary support. An EIS is required to provide a genuine analysis of the proposed activities and their environmental consequences, based on hard data. *Wis. Env't Decade, Inc. v. Pub. Serv. Comm'n*, 105 Wis. 2d 457, 313 N.W.2d 863 (Ct. App. 1981). The Petitioners have not proven that this analysis did not occur here.

V. *WPDES Construction Site Stormwater General Permit*

To protect the waters of Wisconsin, the Department has “all authority necessary to establish, administer and maintain a state pollutant discharge elimination system.” Wis. Stat. § 283.001(2); *Clean Wisconsin, Inc. v. Wis. Dept. of Nat’l Res.*, 2021 WI 71, ¶ 17, 398 Wis. 2d 386, 961 N.W.2d 346 (2021). The law prohibits discharging pollutants into the state’s water without a discharge permit. Wis. Stat. §§ 283.31(1) and 283.37. Discharges of storm water associated with construction sites are included in this requirement for a permit. Wis. Stat. § 283.33(1)(am).

The Wisconsin Pollutant Discharge Elimination System (WPDES) general permit is issued by the Department to cover a category of dischargers with similar wastewater release characteristics.²¹ Wis. Stat. § 283.35; Wis. Admin. Code § NR 205.08. The general permit is designed to cover multiple facilities or projects that perform similar operations, produce similar types of wastewater, employ similar treatment processes, and are subject to similar effluent limitations and monitoring requirements. The permit includes standard requirements, pollutant discharge limitations, monitoring, reporting, and best management practices (BMPs) to protect human health and water quality. To obtain coverage under an existing WPDES general permit, an applicant must determine if their discharge activity meets the specific application and eligibility criteria outlined in the general permit, submit a notice of intent to the Department, and after Department review, if coverage is granted, the applicant must then follow all conditions and requirements of that general permit. Wis. Admin. Code §§ NR 205.08(3), 216.43(1).

To obtain coverage, an applicant must demonstrate that it can comply with the permit’s terms and conditions and relevant storm water regulations. Wis. Admin. Code §§ NR 216.43, 216.44. To do so, an applicant may utilize an erosion control plan containing the elements required by Wis. Admin. Code § NR 216.46 and a storm water management plan containing the elements required by Wis. Admin. Code § NR 216.47. An erosion control plan must contain (1) details about the construction activities and setting for the project identified in Wis. Admin. Code § NR 216.46(4); (2) a detailed site map that describes the specific features and measures being used to reduce erosion at each site under Wis. Admin. Code § NR 216.46(5); and (3) descriptions of the BMPs being installed to reduce erosion and sediment discharge according to Wis. Admin. Code § NR 216.46(6). This information must be provided on a site-specific basis, and it also must meet the performance standard for sediment, which requires that an applicant install BMPs sufficient to reduce soil and sediment discharge to no more than 5 tons of sediment per acre per year. Wis. Admin. Code §§ NR 216.46(1), 216.46(2), 151.11. A storm water management plan must describe the technical basis for the BMPs installed during construction to control total suspended solids and peak flow, enhance infiltration, maintain and restore protective areas, and reduce petroleum in runoff following construction. Wis. Admin. Code § NR 216.47(2).

An applicant may not be eligible for coverage under the general permit, and instead must obtain an individual permit, when the storm water discharges will be a significant source of pollution such that it has a reasonable potential to violate the water quality standards in Wis.

²¹ Consistent with the authority provided in Wis. Stat. § 283.85(1) and Wis. Admin. Code § NR 216.003, the Department issued the most recent Wisconsin Pollutant Discharge Elimination System (WPDES) Construction Site General Permit No. WI-S067831.6 on September 30, 2021. (Ex. 770)

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Admin. Code chapters NR 102-105, 140, and 207; when the storm water discharges will not comply with the regulations for construction sites in Wis. Admin. Code subchapter II of NR 216; or when the storm water discharges will not comply with the terms and conditions of the general permit.

Issue 9: Whether the construction activities proposed in the notice of intent meet the terms and conditions for coverage under the WPDES Construction Site Stormwater General Permit No. WI-S067831-6.

The Project here may result in discharges from construction activities at wetland and waterbody crossings, as well as runoff from land disturbed by construction. Enbridge filed its Notice of Intent for coverage under the general permit on September 23, 2020. (Ex. 699) Initially, the Department's review team included Amy Minser, Matt Jacobsen, and Samantha Whitens, and the team was supervised by Shannon Haydin. (Haydin, Tr. at 3513) Minser is a storm water engineer in the central office for the Department. She developed a technical standard on behalf of the Department for horizontal directional drilling (HDD). (*Id.* at 3520) Jacobsen works out of the Department's Ashland office and has worked for years in Northern West Central Wisconsin. (*Id.* at 3516). He has seen similar projects and is familiar with the geomorphology and resources in the Project's area. (*Id.*) Whitens is a water resources engineer in the Office of Energy with the Department. (Whitens, Tr. at 3745) Shannon Haydin is the stormwater section manager in the Watershed Bureau, in the Division of External Services for the Department. She supervises the central office policy team, a statewide group working to implement the storm water program. (Haydin, Tr. at 3506-3507) After reviewing Enbridge's initial submission, the Department review team members expressed concerns that it lacked the required level of detail. (*Id.* at 3511) For example, Enbridge identified the BMPs that it planned to use during the course of construction of the Project, but it did not include much detail as to where each of the BMPs would be employed, leaving much for the contractors to decide during construction based on field conditions. (*Id.* at 3511-3512) The Department shared these concerns with Enbridge and requested additional information over the course of several years, including through the EIS process.

After Enbridge submitted much more detailed plans to the Department in July 2024, the Department expanded its team to six members to review Enbridge's submissions for coverage under the general permit, adding Melissa Yarrington, Pete Wood, and Chris Linskens. (Haydin, Tr. at 3514-3517) Yarrington is the Department's construction and industrial stormwater program coordinator, and she works out of the Department's Wausau office. (*Id.* at 3516) She has experience with some of the same resources that would be involved with the Project's construction. (*Id.*) Wood is an engineer in Southeast Wisconsin and has been with the Department for more than 30 years. (*Id.* at 3516-3517) He has reviewed thousands of projects in his career. (*Id.*) Linskens is an engineer out of Northeast Wisconsin, and he has experience working in the private sector in addition to working for the Department. (*Id.* at 3516-3517) He also has experience with the Department's Drinking and Groundwater Program. (*Id.*) The goal of the expanded team was to fully vet the Project, compare it to the standards required by law, and confirm whether coverage under the general permit could be issued. (*See id.* at 3514-3515)

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The expanded Department team engaged in frequent team meetings, meeting at least once a week, and engaged in a back and forth with Enbridge raising concerns, requesting additional information, and requesting revisions to Enbridge's Erosion and Sediment Control Plan (the ESCP) and Stormwater Pollution Prevention Plan (the SWPPP). Enbridge provided approximately weekly updated submissions to the Department. (*See* Haydin, Tr. at 3518, 3526) The team divided up segments of the plans and aspects of the Project. (*Id.*) Segments were divided mile marker to mile marker, and team members were also assigned areas of expertise to focus on. (*Id.* at 3520) For example, Minser was the Department's expert on HDD, so she reviewed all work related to HDD. (*Id.*) Whitens focused on the valve sites because she had experience with Office of Energy projects and the construction of substations. (*Id.* at 3521; Whitens, Tr. at 3752) Haydin, the supervisor, testified that she was impressed with the detailed work of the team; they created a safe space for members to raise concerns or red flags. (Haydin, Tr. at 3519) Whitens testified that the group was "a good sounding board," and she was able to ask questions, receive feedback to comments, and discuss questions and comments with other individuals with different experience levels. (Whitens, Tr. at 3750) To methodically review the Project, Minser catalogued all comments raised by members of the Department's team in an excel spreadsheet. (Ex. 804). She then tracked the comments with Enbridge's responses until each comment or concern raised by the team was addressed in a satisfactory manner. (*Id.*, Haydin, Tr. at 3528) As a result of the process, Enbridge revised site maps to add new BMPs or other measures to reduce possible sedimentation or runoff at specific pipeline segments. (Yarrington, Tr. at 3808-3809) Additionally, Enbridge incorporated redundant BMPs in some instances to further reduce sedimentation or to provide backup should BMPs fail. (*Id.*) The Department ultimately granted Enbridge coverage for the Project on November 14, 2024, concluding that Enbridge's Erosion and Sediment Control Plan and Stormwater Pollution Prevention Plan met all of the required elements of Wis. Admin. Code §§ NR 216.46 and 216.47. (Ex. 655)

The Petitioners were granted a contested case hearing on one issue related to the coverage granted under the general permit. The Petitioners allege that the Department improperly granted coverage because the construction activities proposed in the notice of intent do not meet the terms and conditions for coverage under the general permit. For the reasons stated below, the Petitioners' arguments fail.

The Petitioners argue that Enbridge must apply for an individual permit and that coverage under the general permit was not properly granted. They assert that three different exclusions in the general permit apply to the Project, making coverage under the general permit improper. First, § 1.2.2 of the general permit excludes activities and discharges that affect wetlands, unless the Department determines that those activities and discharges comply with Wis. Admin. Code § NR 103.03. The Petitioners argue that the Department lacked the information necessary to determine and assess the Project's compliance with Wis. Admin. Code § NR 103.03. Enbridge responds that there will be no water quality violations.

Second, § 1.2.3 of the general permit excludes activities and discharges that affect endangered and threatened species, unless the Department determines that those activities and discharges comply with the requirements of Wis. Stat. § 29.604 and Wis. Admin. Code Ch. NR 27. The Project's construction activities may pose a risk to sweet coltsfoot and Braun's holly

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fern. The Petitioners argue that the incidental take permit for Bruan's holly fern was issued in September 2025, ten months after coverage under the general permit was granted, and the activities still threaten sweet coltsfoot, and as a result, the Department should have denied coverage. Enbridge argues that the Petitioners have not shown that the activities regulated under the storm water general permit will have these impacts. The Department's review team examined whether the Project's associated stormwater discharges complied with the applicable requirements for the protection of endangered and threatened species. (*See* Haydin, Tr. at 3533)

Third, § 1.2.5 of the general permit excludes discharges the Department determines have "reasonable potential to cause to contribute to an excursion above any applicable water quality standards." (Ex. 770 at 5) The water quality standards, Wis. Admin. Code §§ NR 102.04(1)(c)-(d), are narrative, not numerical. In response to the Petitioners' third argument regarding water quality standards, Enbridge points out that the Petitioners conceded that they did not identify a single water quality standard that would be violated by the Project. (Greenberg, Tr. at 2052; Ledder, Tr at 1142)

Finally, the Petitioners argue that an inadvertent release from HDD could harm aquatic life and has a reasonable potential to violate the state's sediment water quality standards. (Callan, Tr. at 5254-5255). The Department contends that any such discharges are not permitted – they would be treated as spills. (Yarrington, Tr. at 3809)

While the parties each called witnesses to give testimony to support their claims, the most compelling testimony came from the Department's storm water review team and the methodical manner in which they reviewed the Project submissions for coverage. Each member of the team explained their qualifications and brought expertise to the review of the standards. They each testified that they raised any concerns that they had, and that in the end, Enbridge addressed those concerns by providing additional information or revising its plans. Moreover, after they scrutinized the plans, they each agreed to confer coverage under the general permit. (Ex. 804; Haydin, Tr. at 3528-3529; Whitens, Tr. at 3762-3763; Yarrington, Tr. at 3824-3825, 3843; Jacobson, Tr. at 3886; Minser, Tr. at 3940-3941, 3993; Linskens, Tr. at 4099; Wood, Tr. at 4122) The Petitioners have failed to satisfy their burden; they have not established, by a preponderance of the evidence, that the authorized construction activities do not meet the terms and conditions for coverage under the general permit. (Ex. 655)

VI. Modified Permit Conditions

On March 28, 2025, Enbridge filed a motion seeking to include whether the permit may be modified as an issue for hearing. The parties filed briefs to argue their position on the motion and also offered some discussions of their positions on the motion at the prehearing conference on March 31, 2025. On April 15, 2025, the undersigned ALJ issued an order on the motion. Relying primarily on Wis. Stat. § 227.44(2)(a), Wis. Admin. Code § NR 2.12(1)(a), *Clean Wisconsin, Inc. v. DNR*, 2021 WI 71, 398 Wis. 2d 386, 961 N.W.2d 346, and *Kohler Co. v. Wis. Dept. of Nat. Res.*, 2024 WI App 2, ¶¶ 79-86, 410 Wis. 2d 433, 3 N.W.3d 172, the ALJ denied the motion to add an additional issue for hearing and issued an order clarifying the issues, specifically stating that "the issues in this case will be clarified to provide notice that, if

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appropriate under the circumstances and supported by a preponderance of the evidence in the record, a potential result of the hearing may be modification of the permit.”

Towards the conclusion of the hearing, on October 1, 2025, Enbridge filed notice of its intent to request modifications of the combined wetlands and waterway permit and water quality certification, specifying five separate modifications. Four of these modifications have been discussed above: (1) clarifying that absolute cover shall be used for characterizing species in post-construction monitoring instead of Braun-Blanquet (Issue 1); (2) specifically requiring a separate § 30.12 permit with riparian owners as co-applicants for permanent bank stabilization structures (Issue 3); (3) requiring additional geotechnical borings prior to sheet piling to further investigate potential artesian conditions to further mitigate risk; and (Issue 4) (4) clarifying that the incidental take permit for Braun’s holly fern has been issued (Issue 4). These modifications, as discussed above, have been found to be supported by a preponderance of the evidence in the record and appropriate under the circumstances.

Enbridge proposed one other modification that has not yet been addressed herein, which is related to the method for sampling mercury. The proposed modification relates to Condition 145 of the wetlands and waterways permit (Ex. 631 at 16) and Condition 143 of the water quality certification (Ex. 633 at 20),²² which provides:

You shall perform water quality monitoring in accordance with the ECP’s Water Quality Monitoring Plan .

The proposed *modification* to the condition states:

You shall perform water quality monitoring in accordance with the ECP’s Water Quality Monitoring Plan. *Notwithstanding anything in the Water Quality Monitoring Plan (Appendix O to the Environmental Construction Plan) (“WQMP”), all mercury sampling from and after the date of this decision shall be performed using US EPA Method 1631E or another method approved by the department in writing.*

There is insufficient evidence in the record to support this modification. While it may be a clarification or even beneficial, there was not testimony from witnesses about the impact of this modification. Mr. Callan of the Department testified that he “saw” the proposed modification but clarified that he was not an expert on mercury testing or the sensitivity of it. (Callan, Tr. at 5313). The Water Quality Monitoring Plan is complex, and without additional evidence, it is unclear how this modification changes the monitoring or how experts would view the change. (Ex. 630 at 886). As a result, this modification is not ordered here.

No other party requested modifications. The Band responded to Enbridge’s requested modifications in its closing brief and characterized the modifications as changes to save errors in the permit. But the modifications here are not of that nature. The modifications ordered here are not used to correct a situation where the Department did not have sufficient information. *See*

²² Condition 145 of the permit (Ex. 631 at 16) and Condition 143 of the water quality certification (Ex. 633 at 20) are identical and relate to waterways. The proposed modification to the language of the conditions is also identical.

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Sierra Club v. Wis. Dept. of Nat. Res., 2025 WI App 39, ¶ 70, 417 Wis. 2d 90, 135-136, 24 N.W.3d 157, 180-181 (discussing *Meteor Timber, LLC v. DHA*, 2022 WI App 5, 400 Wis. 2d 451, 969 N.W.2d 746 (2021), and *Kohler Co.*, 410 Wis. 2d 433, 3 N.W.3d 172). No finding was made here that the Department was missing information at the time it conducted its review of the permits or certification.

All of the arguments presented by the parties were carefully considered by the undersigned ALJ. The courts have recognized that an administrative decision-maker “is not required to make findings that respond to every issue the [Petitioners] raised in its request.” *Peace Lutheran Church & Acad. v. Vill. of Sussex*, 2001 WI App 139, ¶ 33, 246 Wis. 2d 502, 631 N.W.2d 229. Thus, any arguments and evidence on the record that were not specifically mentioned were determined to not merit comment in the decision.

CONCLUSIONS OF LAW

1. The Division of Hearings and Appeals has the authority to hear this case and issue a final decision pursuant to Wis. Stat. § 227.43(1)(b) and Wis. Admin. Code § NR 2.155(1). Review is limited to the portions of the petition the Department determined met the applicable jurisdictional requirements. Wis. Admin. Code § NR 2.055.
2. The Petitioners bear the burden of proof on the issues by a preponderance of the evidence. Wis. Admin. Code §§ NR 2.13(3)(b) and HA 1.17(2).
3. The activities authorized by Permit #IP-NO-2020-2-N00471, meet state requirements and wetland permitting standards under Wis. Stat. § 281.36(3n)(c) and Wis. Admin. Code Ch. NR 103.
4. The wetland compensatory mitigation required by Permit #IP-NO-2020-2-N00471 meets state wetland mitigation requirements under Wis. Stat. § 281.36(3r) and Wis. Admin. Code Ch. NR 350.
5. The structures and deposits in navigable waters authorized by Permit #IP-NO-2020-2-N00471, as modified by this order, meet state requirements and waterway permitting standards under Wis. Stat. § 30.12.
6. The removal of material from the beds of navigable waters authorized by Permit #IP-NO-2020-2-N00471 meets state requirements and waterway permitting standards under Wis. Stat. § 30.20.
7. The temporary clear span bridges authorized by Permit #IP-NO-2020-2-N00471 meet state requirements and waterway permitting standards under Wis. Stat. § 30.123.
8. The activities authorized by Permit #IP-NO-2020-2-N00471 meet state water quality certification standards under Wis. Admin. Code § NR 299.04.

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9. Four modifications to Permit #IP-NO-2020-2-N00471 are appropriate and supported by a preponderance of the evidence in the record. This permit shall be modified to (1) clarify that absolute cover shall be used for characterizing species in post-construction monitoring instead of Braun-Blanquet; (2) specify that a separate § 30.12 permit with riparian owners as co-applicants is required prior to installing permanent bank stabilization structures; (3) require additional geotechnical borings prior to sheet piling to further mitigate risk; and (4) clarify that the incidental take permit for Braun's holly fern has been issued.
10. The Department's Final Environmental Impact Statement described the purpose of the proposed project and reasonable alternatives to the proposed project in accordance with Wis. Stat. § 1.11(2)(c)3. and Wis. Admin. Code §§ NR 150.30(2)(b) and (e).
11. The Final Environmental Impact Statement contained a complete environmental analysis in accordance with Wis. Stat. § 1.11(2)(c) and Wis. Admin. Code §§ NR 150.30(2)(f), (g), and (h).
12. The construction activities proposed in the notice of intent meet the terms and conditions for coverage under the WPDES Construction Site Stormwater General Permit No. WI-S067831-6.

ORDER

For the reasons set forth above, IT IS ORDERED:

1. That the Department's decision to issue the combined individual Wetland and Waterway Permit #IP-NO-2020-2-N00471 is AFFIRMED.
2. That the Department's decision to issue a Water Quality Certification pursuant to the Clean Water Act is AFFIRMED.
3. That the Department's decision to issue Enbridge coverage under the Wisconsin Pollution Discharge Elimination System (WPDES) General Construction Site Storm Water Runoff Permit No. WI-S067831-06 is AFFIRMED.

IT IS FURTHER ORDERED that Wetlands and Waterway Permit #IP-NO-2020-2-N00471 is modified as follows:

Condition 242 shall be amended to read:

You shall implement the ECP's Wetland and Waterbody Restoration and Post-Construction Monitoring Plan (the "Wetland Restoration Plan"). This plan incorporates native seed mix as well as bare root stock to reestablish wetland vegetation. Notwithstanding anything in the Wetland Restoration Plan to the contrary, the absolute cover method shall in all cases be used instead of the Braun-Blanquet cover classes to record species cover/abundance where and as specified in the Wetland Restoration Plan for post-construction monitoring. Braun-Blanquet shall not be used for post-construction monitoring.

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Condition 182 shall be amended to read:

Bank stabilization structures shall be installed following the design plans in the Wetland and Waterway Restoration and Post-Construction Monitoring Plan in the ECP, as conditioned in this permit, and as approved by the Department. Permanent structures shall only be installed below the OHWM after a separate permit has been issued under Wis. Stat. §. 30.12 that includes the riparian owner(s) as co-permittees.

Condition 196 shall be amended to read:

You shall minimize the width of the trench through waterways as specified in the ECP. Where support is needed in the trench due to depth, soil type, or soil saturation, use of trench boxes shall be considered first. Sheet piling shall only be used where necessary for personnel safety. Prior to using sheet piling, you shall conduct geotechnical borings at the location of the anticipated use of sheet piling deeper than the expected depth of the sheet piling to assess potential Artesian conditions at that site. If Artesian conditions are encountered at a depth that would give rise to a risk of an Artesian aquifer breach, a construction method shall be used at that location that does not require the use of sheet piling.

Condition 221 shall be amended to read:

You shall minimize the width of the trench through wetlands as specified in the ECP. Where support is needed in the trench due to depth, soil type, or soil saturation, use of trench boxes shall be considered first. Sheet piling shall only be used where necessary for personnel safety. Prior to using sheet piling, you shall conduct geotechnical borings at the location of the anticipated use of sheet piling deeper than the expected depth of the sheet piling to assess potential Artesian conditions at that site. If Artesian conditions are encountered at a depth that would give rise to a risk of an Artesian aquifer breach, a construction method shall be used at that location that does not require the use of sheet piling.

Condition 84 shall be amended to read:

All construction activities shall be conducted in accordance with the avoidance and minimization measures for rare species as stated in Enbridge's Incidental Take Permit/Authorization that has been obtained and/or will be required as part of the Project.

Finding of Fact 77 shall be amended to read:

The Project, if constructed in accordance with this permit and protection measures required and recommended by the Department's Office of Energy Endangered Resources Energy Liaison, will avoid and minimize impacts to endangered resources. Enbridge is required by this permit to use upland seed mixes that contain $\geq 99\%$ native species (use of *Lolium perenne* is acceptable). Most recommended actions will be followed by Enbridge using a native seed mix as part of restoration as well as completing tree clearing during winter months.

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For those state-listed endangered resources that cannot be avoided, an Individual Incidental Take Permit will be issued or a Broad Incidental Take Permit that has already been issued will ensure take of those species is minimized pursuant to Wisconsin's Endangered Species Law (29.604, Wis. Stats.). Enbridge has obtained an Individual Incidental Take Permit for Braun's Holly Fern.

IT IS FURTHER ORDERED that the Water Quality Certification issued to Enbridge on November 14, 2024, is modified as follows:

Condition 148 shall be amended to read:

You shall implement the ECP's Wetland and Waterbody Restoration and Post-Construction Monitoring Plan (the "Wetland Restoration Plan"). This plan incorporates native seed mix as well as bare root stock to reestablish wetland vegetation. Notwithstanding anything in the Wetland Restoration Plan to the contrary, the absolute cover method shall in all cases be used instead of the Braun-Blanquet cover classes to record species cover/abundance where and as specified in the Wetland Restoration Plan for post-construction monitoring. Braun-Blanquet shall not be used for post-construction monitoring.

Condition 209 shall be amended to read:

Bank stabilization structures shall be installed following the design plans in the Wetland and Waterway Restoration and Post-Construction Monitoring Plan in the ECP, as conditioned in this WQC, and as approved by the Department. Permanent structures shall only be installed below the OHWM after a separate permit has been issued under Wis. Stat. §. 30.12 that includes the riparian owner(s) as co-permittees.

Condition 223 shall be amended to read:

You shall minimize the width of the trench through waterways as specified in the ECP. Where support is needed in the trench due to depth, soil type, or soil saturation, use of trench boxes shall be considered first. Sheet piling shall only be used where necessary for personnel safety. Prior to using sheet piling, you shall conduct geotechnical borings at the location of the anticipated use of sheet piling deeper than the expected depth of the sheet piling to assess potential Artesian conditions at that site. If Artesian conditions are encountered at a depth that would give rise to a risk of an Artesian aquifer breach, a construction method shall be used at that location that does not require the use of sheet piling.

Condition 61 shall be amended to read:

You shall minimize the width of the trench through wetlands as specified in the ECP. Where support is needed in the trench due to depth, soil type, or soil saturation, use of trench boxes shall be considered first. Sheet piling shall only be used where necessary for personnel safety. Prior to using sheet piling, you shall conduct geotechnical borings at the location of the anticipated use of sheet piling deeper than the expected depth of the sheet piling to assess potential Artesian

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conditions at that site. If Artesian conditions are encountered at a depth that would give rise to a risk of an Artesian aquifer breach, a construction method shall be used at that location that does not require the use of sheet piling.

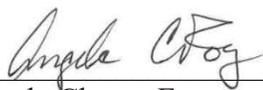
Finding of Fact 77 shall be amended to read:

The Project, if constructed in accordance with this permit and protection measures required and recommended by the Department's Office of Energy Endangered Resources Energy Liaison, will avoid and minimize impacts to endangered resources. Enbridge is required by this permit to use upland seed mixes that contain $\geq 99\%$ native species (use of *Lolium perenne* is acceptable). Most recommended actions will be followed by Enbridge using a native seed mix as part of restoration as well as completing tree clearing during winter months. For those state-listed endangered resources that cannot be avoided, an Individual Incidental Take Permit will be issued or a Broad Incidental Take Permit that has already been issued will ensure take of those species is minimized pursuant to Wisconsin's Endangered Species Law (29.604, Wis. Stats.). Enbridge has obtained an Individual Incidental Take Permit for Braun's Holly Fern.

All other provisions of Permit #IP-NO-2020-2-N00471 not directly modified here are AFFIRMED.

Dated at Madison, Wisconsin on February 13, 2026.

STATE OF WISCONSIN
DIVISION OF HEARINGS AND APPEALS
4822 Madison Yards Way, 5th Floor North
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Telephone: (414) 227-4025
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By: 

Angela Chaput Foy
Administrative Law Judge

NOTICE OF APPEAL RIGHTS FOLLOW ON THE NEXT PAGE.

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NOTICE

Set out below is a list of alternative methods available to persons who may desire to obtain review of the attached decision of the Administrative Law Judge. This notice is provided to ensure compliance with Wis. Stat. § 227.48 and sets out the rights of any party to this proceeding to petition for rehearing and administrative or judicial review of an adverse decision.

1. Any party to this proceeding adversely affected by the decision attached hereto has the right within twenty (20) days after entry of the decision, to petition the secretary of the Department of Natural Resources for review of the decision as provided by Wis. Admin. Code § NR 2.20. A petition for review under this section is not a prerequisite for judicial review under Wis. Stat. §§ 227.52 and 227.53.
2. Any person aggrieved by the attached order may within twenty (20) days after service of such order or decision file with the Division of Hearings and Appeals a written petition for rehearing pursuant to Wis. Stat. § 227.49. Rehearing may only be granted for those reasons set out in Wis. Stat. § 227.49(3). A petition under this section is not a prerequisite for judicial review under Wis. Stat. §§ 227.52 and 227.53.
3. Any person aggrieved by the attached decision which adversely affects the substantial interests of such person by action or inaction, affirmative or negative in form is entitled to judicial review by filing a petition therefore in accordance with the provisions of Wis. Stat. §§ 227.52 and 227.53. Said petition must be served and filed within thirty (30) days after service of the agency decision sought to be reviewed. If a rehearing is requested as noted in paragraph (2) above, any party seeking judicial review shall serve and file a petition for review within thirty (30) days after service of the order disposing of the rehearing application or within thirty (30) days after final disposition by operation of law. Since the decision of the Administrative Law Judge in the attached order is by law a decision of the Department of Natural Resources, any petition for judicial review shall name the Department of Natural Resources as the respondent and shall be served upon the Secretary of the Department either personally or by certified mail at: 101 South Webster Street, P. O. Box 7921, Madison, WI 53707-7921. Persons desiring to file for judicial review are advised to closely examine all provisions of Wis. Stat. §§ 227.52 and 227.53, to ensure strict compliance with all its requirements.

EXHIBIT E



**Before The
State of Wisconsin
DIVISION OF HEARINGS AND APPEALS**

In Re: Permit # IP-NO-2020-2-N00471, Water Quality Certification, and Coverage under WPDES General Permit No. WI-S067831-06 issued to Enbridge Energy, LP, and the Department of Natural Resources Environmental Impact Statement for Enbridge Energy's Line 5 Segment Relocation Project in Ashland, Bayfield, and Iron Counties.

DHA Case No. DNR-25-0002

DNR Case Nos. 24-048 and 24-049

ORDER ON CONTINUING STATUTORY STAYS OF THE PERMITTED ACTIVITIES

Preliminary Recitals

On December 12, 2024, the Bad River Band of Lake Superior Chippewa, by its attorneys Earthjustice, and 350 Wisconsin, League of Women Voters of Wisconsin, and Sierra Club, by their attorneys Midwest Environmental Advocates and Clean Wisconsin (collectively Petitioners), filed Petitions for a Contested Case Hearing with the Wisconsin Department of Natural Resources (Department) pursuant to Wis. Stat. §§ 227.42, 30.209, and 281.36(3q). These petitions included requests to stay the Department's permit decisions granted to Enbridge Energy, LP (Enbridge). On January 2, 2025, the Department granted a contested case hearing on nine issues raised in the petitions and noted that the requested stays were in effect pursuant to Wis. Stat. §§ 281.36(3q)(d) and 30.209(1m)(c). The matter was referred to the Division of Hearings and Appeals, received on January 30, 2025, and Administrative Law Judge Angela Chaput Foy was assigned as the hearing examiner.

Discussion

Within 30 days after receipt of the case referral from the Department, the hearing examiner is required to determine whether continuation of the stay is necessary during pendency of the proceeding "to prevent significant adverse impacts or irreversible harm to the environment pending completion of the administrative hearing." Wis. Stat. §§ 30.209(2)(b) and 281.36(3q)(g). *Id.* In making this determination, the hearing examiner considers the request in the Petition, any response from the applicant, and any testimony at a public hearing or any public comments. *Id.*

As it relates to continuing the stays requested in the Petitions, the law requires that "[t]he activity or project shall be stayed pending an administrative hearing under this section, if the petition contains a request for the stay showing that a stay is necessary to prevent significant

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adverse impacts or irreversible harm to the environment.” Wis. Stat. § 30.209(1m)(c). Similarly, “[t]he discharge shall be stayed pending an administrative hearing under this subsection if the petition contains a request for the stay showing that a stay is necessary to prevent significant adverse impacts or irreversible harm to the environment.” Wis. Stat. § 281.36(3q)(d).

The Petitioners assert that continuing the stay is necessary because the proposed project would cause significant adverse impacts resulting in irreversible environmental harm “once wetlands and waterways are dredged, trenched, blasted, compacted, and filled.” (Pet. of Bad River Band of Lake Superior Chippewa at 35) They argue that the scope of the project presents significant risk of permanently adversely impacting “wetland floral diversity, habitat, storm and flood prevention, water quality, shoreline protection, hydrologic function, recreational, cultural, education, scientific and natural scenic beauty values.” (Pet. of Earthjustice, 350 Wisconsin, and League of Women Voters of Wisconsin at 39-40) Further, the project involves permanently clearing wetlands and the permitted discharge would also significantly adversely impact wetland functions.

The Petitioners also assert that post-project remediation efforts would be too little, too late should the outcome of the administrative proceeding result in the Petitioners’ favor. That is, if the stays are not continued and Enbridge is instead allowed to proceed with the project pending this proceeding and later must engage in restoration efforts, then it is not guaranteed that they can fully restore high quality wetlands, as restoration efforts are often unsuccessful. And even if the efforts were successful, the Petitioners argue that the conversion of forested wetlands to emergent wetlands still results in permanent adverse impacts to wildlife habitat and ecosystem hydrology. The Petitioners also assert significant adverse impact to navigable waters because the proposed blasted bedrock from the waterways is irrevocable and would change the geology and hydrology of the waterways, impacting baseflows, geomorphology and slope stability, water quality, and fish and wildlife habitat. (*Id.* at 40)

In response to the request for continuation of the stay, Enbridge asserts that the Petitioners have failed to meet their burden to show the stays are necessary to prevent significant adverse impacts or irreversible harm. It asserts that years of extensive study and analysis by technical experts, some from within the Department, have not found the project would cause irreparable harm because the permit “was approved after nearly five years of testing and expert consultation, responses to public comments, and other data analyses regarding the environmental impacts of the Project.” (Enbridge Response to Pet. of Earthjustice, 350 Wisconsin, and League of Women Voters of Wisconsin at 15) However, this logic is circular, as the propriety of the permit itself is the very subject of the proceeding.

The Petitioners have made compelling arguments that support the continuation of the stays. It is necessary to avoid the likelihood of significant adverse impacts to the environment should the permitted project and/or discharge be allowed to proceed during the pendency of this proceeding.

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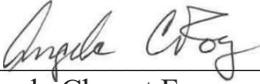
ORDER

It is hereby ordered that the activity or project (pursuant to Wis. Stat. § 30.209(1m)(c) governing navigable waters) is stayed pending the outcome of the contested case hearing.

It is further ordered that the discharge permit (pursuant to Wis. Stat. § 281.36(3q)(d) governing water, sewage, and wetland) is stayed pending the outcome of the contested case hearing.

Dated at Madison, Wisconsin on February 28, 2025.

STATE OF WISCONSIN
DIVISION OF HEARINGS AND APPEALS
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By: 

Angela Chaput Foy
Administrative Law Judge