



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, DETROIT DISTRICT
477 MICHIGAN AVENUE
DETROIT MI 48226-2550

CELRE-ORW: LRE-2010-00463-56-A19(1145)

23 November 2021

MEMORANDUM FOR RECORD

SUBJECT: Determination of the requirement for an Environmental Impact Statement for the proposed pipeline tunnel in the Straits of Mackinac by Enbridge Energy, Limited Partnership

1. Purpose: The Detroit District has prepared this memorandum for record (MFR) to document its findings on the project's potential to cause significant impacts to the quality of the human environment that necessitate preparation of an EIS, pursuant to 33 CFR Part 325, Appendix B and 40 CFR Parts 1500-1508 of 1978, as amended in 1986 and 2005.
2. Permit Authority: The proposed activities are subject to the authority delegated to the District Engineer from the Secretary of the Army and the Chief of Engineers by 33 CFR 325.8, pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.
3. Permit Background: Enbridge Energy, Limited Partnership, proposes to construct a 21-foot-diameter tunnel approximately 3.6 miles long underneath the bed of the Straits of Mackinac. The tunnel would be bored through bedrock using a tunnel boring machine (TBM). Pre-cast concrete segmental lining would be installed as the tunnel is constructed, and the annular space outside the tunnel's concrete lining would be filled with low-permeability grout. The tunnel would house a 30-inch-diameter pipeline for crude oil and natural gas liquids that would replace the existing Line 5 crossing, which consists of two 20-inch-diameter submerged pipelines that are buried close to shore and rest or are supported on the lakebed at depths up to 225 feet.

A shallow launch portal up to 1,000 feet long, 60 feet wide, and 75 feet deep would be constructed in uplands within the limits of disturbance (LOD) of the southern work area (McGulpin Point), as the entry point for the TBM. A circular shaft 70 feet in diameter and 150 feet deep would be constructed in uplands at the TBM exit point in the northern work area (Point LaBarbe).

Approximately 364,000 cubic yards of material would be removed from underneath the lakebed to construct the tunnel and transported to offsite upland disposal sites.

The project would involve permanent fill in 0.10 acre of emergent wetland to widen an existing road for construction access and to construct two outfall structures for treated water. Approximately 0.03 acre of forested wetland would be temporarily filled to

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provide access to a construction and staging area to the north of Enbridge's existing North Straits Facility. After completion of construction, the fill in this 0.03-acre area would be removed, and the area would be seeded with emergent wetland seed mix.

Two water intake structures, each with a base approximately 10 feet by 10 feet, would be installed on each side of the Straits, located approximately 280 feet offshore the northern work area in approximately 10 feet of water depth, and located approximately 350 feet offshore the southern work area in 17 feet of water depth, with a 6- to 12-inch-diameter pipe connected to on-shore water storage tanks. A discharge pipe would also be connected to the southern intake, which would be used intermittently to discharge treated water. Each intake structure would be marked with a surface buoy. The water intakes would be removed upon completion of tunnel construction.

Upon completion, the new 30-inch pipeline within the tunnel would be tied into the upland portions of the Line 5 pipeline, and the existing Line 5 dual submerged pipelines crossing the Straits of Mackinac would be decommissioned. The dual pipelines would be purged, cleaned, and abandoned in place.

The Straits of Mackinac constitute the outflow of Lake Michigan into Lake Huron, encompassing an area approximately 3 miles long and over 4 miles wide. The hydrological connection through the Straits is of an extent that Lakes Michigan and Huron are considered a single body of water. Although the primary flow of water through the Straits is eastward from Lake Michigan into Lake Huron, water occasionally flows westward into Lake Michigan during periods of east winds. The physical, chemical, and biological characteristics of northern Lakes Michigan and Huron are substantially linked through the Straits due to the geographic extent of this connection and the resulting water exchange. The Straits of Mackinac are used for purposes including commercial navigation, commercial, recreational, and subsistence fishing, recreational boating and tourism, riparian access and use, public water supply, habitat for aquatic fauna, maintenance of biological diversity, and support of the economy. The northern shore of the Straits at Point LaBarbe supports two federally threatened plant species: dwarf lake iris (*Iris lacustris*) and Houghton's goldenrod (*Solidago houghtoni*) that would be adversely affected by the proposed project. High quality coastal wetlands are located in protected areas of the shoreline near Point LaBarbe.

The Straits have been and continue to be of central importance to the 1836 Treaty Tribes' treaty-protected fishing rights, commercial and economic interests, food supplies, history, and cultural identity. A substantial proportion of the 1836 Treaty Tribes' fish harvest comes from the Straits of Mackinac. In addition, the Straits of

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Mackinac are of religious or cultural significance to multiple federally recognized Tribes, who have indicated that the Straits should be considered a Traditional Cultural Landscape (TCL). The TCL appears to be eligible for listing in the National Register of Historic Places. To date, thirteen federally recognized Tribes have commented or engaged in consultation on the proposed project.

During the public notice and public hearing comment periods, we received over 15,000 public comments, both in favor of and opposed to the project. The issues raised include impacts to water quality, the aquatic ecosystem, wetlands, federally listed threatened and endangered species, fish, and treaty-protected fishing rights due to construction and discharge of treated process water; impacts to cultural resources, including the Straits of Mackinac TCL, due to tunnel construction and operation; and impacts to the economy and energy needs.

4. Legal and Policy Background: Appendix B of 33 CFR Part 325 - NEPA Implementation Procedures for the Regulatory Program, establishes the procedures for implementing NEPA in the Corps regulatory program. Paragraph 7 of Appendix B states, "In those cases where it is obvious an EIS is required, an EA is not required. However, the district engineer should document his reasons for requiring an EIS."

In the enclosed memorandum of June 22, 2021, the Acting Assistant Secretary of the Army (Civil Works) directed the U.S. Army Corps of Engineers to prepare an environmental impact statement (EIS) to evaluate the potential impact of actions significantly affecting the quality of the human environment as a result of the subject application. For the reasons outlined below, the Detroit District will proceed straight to the preparation of an EIS and will not prepare an EA. As required by 33 CFR Part 325, Appendix B, this document outlines the reasons for requiring an EIS.

5. Applicable Law: Central to the determination as to whether an EIS is required is the determination that the proposed action may have significant effect(s) on the quality of the human environment. The CEQ's regulations at 40 CFR § 1508.27 establish criteria requiring considerations of both context and intensity in this determination.

Establishing the context for this determination requires that the significance of the action "...be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action... Both short- and long-term effects are relevant." (40 CFR 1508.27(a))

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The CEQ's regulations denote that intensity is the severity of the impacts. When evaluating the severity of the potential impacts to the human environment, the CEQ has highlighted ten factors which the agency may consider to determine the significance of a project's impacts. Those factors, found in 40 CFR § 1508.27(b), are as follows:

1. *Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.*
2. *The degree to which the proposed action affects public health or safety.*
3. *Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.*
4. *The degree to which the effects on the quality of the human environment are likely to be highly controversial.*
5. *The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.*
6. *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.*
7. *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.*
8. *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.*
9. *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.*
10. *Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.*

6. Analysis:

The Detroit District's evaluation of context and intensity of the subject permit action reveals the project may have significant effects on the human environment. When considering several contexts, the following intensity factors in particular suggest the potential for significant effects.

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In relation to intensity factor number three, the Straits of Mackinac is a unique geographic area that hydrologically connects Lakes Michigan and Huron, contains cultural resources (specifically, a TCL), federally listed species, and high-quality coastal wetlands. The Straits is also of critical importance to the Tribal, national, and regional economy due to its fishery resources and naturally navigable waters.

In relation to intensity factor number four, the permit application might be considered “highly controversial” because the Corps has received over 15,000 comments on the project raising a diverse set of issues such as water quality, impacts to treaty-protected fishing rights due to construction and discharge of treated process water, and impacts to the economy and energy needs. Additionally, thirteen federally recognized Tribes have opposed the project in either written comments or in consultation meetings. The Tribes assert the permit application abrogates their treaty rights and adversely impacts the TCL. In considering controversy, we look not at the existence of opposition, but rather, whether a substantial dispute exists as to the size, nature, or effect of the action. The issues raised are materially related to the Corps’ evaluation.

In relation to intensity factor number five, at this time, the impacts to the TCL are highly uncertain. Further consultation and studies are needed to determine the potential impacts to the TCL.

In relation to intensity factor number nine, two federally threatened plant species: dwarf lake iris (*Iris lacustris*) and Houghton’s goldenrod (*Solidago houghtoni*) would be adversely affected by the proposed project.

In relation to intensity factor number ten, the Tribes have alleged that the proposed permit action abrogates their Tribal treaty rights.

Therefore, based on the unique characteristics of the geographic region; the critical importance of the Straits of Mackinac to the economy, navigation, maintenance of biological diversity, cultural resources, and treaty-protected fishery resources; and the uncertain nature of impacts to the Straits of Mackinac TCL; the potential for significant effects is present. Specifically, considering both context and intensity pursuant to 40 CFR 1508.27, the project warrants a thorough evaluation, particularly with respect to its potential impacts to cultural resources and treaty rights, through development of an EIS. An EA will not be prepared.

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7. Conclusion: I have reviewed and evaluated the factors concerning this permit application. Based on my review, when considering both context and intensity, I am reasonably able to arrive at a conclusion that the project, as proposed, may have significant effects on the human environment in the Straits of Mackinac area.

Further investigation into these areas of potential significant impacts on the human environment will allow the Detroit District to make an informed permit decision and may help the applicant address the relevant concerns in the design of their project. Therefore, in accordance with of 33 CFR 325 Appendix B paragraph 7, I have determined that the project requires the preparation of an Environmental Impact Statement.

8. Questions regarding this memorandum may be directed to Charlie Simon at Charles.M.Simon@usace.army.mil or 313-226-7732.



Encl

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Commanding