

October 14, 2022

**Line 5 Tunnel EIS
16501 Shady Grove Road
PO Box 10178, Gaithersburg MD 20898**

Ref: U.S. Army Corps of Engineers Project LRE-2010-00463-56-A19

The organizations and individuals listed below request that the U.S. Army Corps of Engineers (USACE) conduct a thorough and complete review of the proposed project as part of its Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA). The undersigned further request a 60-day extension to the public comment period on the scope of the EIS, given the intense public interest in this issue.

The scope of review determined by USACE must be broad enough to include a review of every major factor, proposed construction method, and impact of this project. It is especially important that USACE review those aspects of the project that have not been thoroughly considered by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) or the Michigan Public Service Commission (MPSC). Both of these agencies have undertaken rather limited reviews of this proposal. Therefore, key elements of the proposed design, environmental and climate impacts, and planned construction protocols have not been reviewed.

If USACE does not review these elements, which we will discuss in further detail below, this project could move forward with no agency fully considering the substantial risks and impacts of this project, or the feasible and prudent alternatives that exist to transporting oil through a critical Great Lakes ecosystem identified by researchers at the University of Michigan Water Center as the worst place in the Great Lakes for an oil spill.

USACE must fully consider all of the following issues as part of its duty under NEPA to protect our natural resources for the public good and benefit. Even Enbridge representatives admit that no other pipeline like this exists anywhere else in the world. Allowing an oil tunnel to be built in the Straits of Mackinac would be an unprecedented experiment that endangers the Great Lakes, one of the most sensitive ecosystems in the world.

I. USACE must perform a comprehensive alternatives analysis, including analysis of alternative methods and locations for transport of oil currently routed through Line 5.

The purpose of Line 5 in its current configuration and in its proposed configuration in a tunnel under the Straits of Mackinac is to move oil and natural gas liquids from Superior, Wisconsin to various refineries in Ontario, Quebec, Michigan, and Ohio. Therefore, USACE should not limit the purpose of its review to be the continued use of the Line 5 pipeline. NEPA prohibits agencies from “defining the objectives of their actions in terms so unreasonably narrow that they can be accomplished by only one alternative (i.e., the applicant’s proposed project).”¹ Requiring the purpose of the project to be defined broadly ensures the

¹ *Col. Env'tl. Coal. v. Dombeck*, 185 F.3d 1162, 1174 (10th Cir. 1999) (citing *Simmons v. U.S. Corps of Engineers*, 120 F.3d 664, 669 (7th Cir. 1997)).

EIS does not become “a foreordained formality.”² Accordingly, USACE must consider other feasible and prudent alternatives that accomplish the goal of providing refineries with necessary feedstock without further reliance on a dangerous 69-year-old pipeline. Further, USACE should balance the current need for feedstock at refineries with the global imperative to decarbonize economies in order to limit anthropogenic climate change to 1.5 degrees C.

Independent studies have revealed Line 5 is not a necessary piece of infrastructure and other options for the transport of the products currently transported on Line 5 exist and could be implemented in short order. Several independent studies have been completed on this subject, including the study conducted by Neil Earnest of Muse Stancil & Co., which was filed on behalf of Enbridge in *Bad River Band of Lake Superior Chippewa Indians of the Bad River Reservation v Enbridge*³ and the rebuttal studies filed by the Bad River Band.⁴ Mr. Earnest finds that an immediate shutdown of Line 5 would impact regional gas prices by roughly 0.5 cents per gallon.⁵ The rebuttal studies further illustrate the myriad oil transport options that could be ready in short order, including utilization of existing capacity within the Lakehead pipeline system. Further studies conducted by Canadian energy experts on behalf of Environmental Defence show the impacts of a Line 5 shutdown to Canadian energy markets are overstated and could be mitigated through a planned decommissioning process.⁶

Neither EGLE or MPSC have performed an alternatives analysis beyond comparing the existing Line 5 pipeline with an outdated design of the proposed tunnel (note that Enbridge’s Alternatives Analysis report compared the existing dual pipelines with the sealed annulus tunnel design- not the utility tunnel as proposed currently). As the previous version of the NEPA implementing regulations stated, and as is still true today, evaluating a wide range of alternatives is “the heart of the environmental impact statement.”⁷ Under NEPA, federal agencies must thoroughly explore and objectively evaluate a wide range of alternatives to proposed federal actions.⁸ “An agency must look at every reasonable alternative, with the range dictated by the nature and scope of the proposed action.”⁹ Refusing to “rigorously explore and objectively evaluate all reasonable alternatives” to the proposed action is a breach of an agency’s responsibilities under NEPA.¹⁰ Agencies’ evaluation of alternatives must consider less environmentally harmful alternatives, as well as mitigation efforts.¹¹

NEPA defines a “reasonable” range of alternatives to mean evaluating alternatives “that are practical or feasible” and not just “whether the proponent or applicant likes or is itself capable of carrying out a

² *City of New York v. Dep’t of Transp.*, 715 F.2d 732, 743 (2nd Cir. 1983); see also *Davis v. Mineta*, 302 F.3d 1104 (10th Cir. 2002).

³ Expert Report of Neil K. Earnest, *Bad River Band of Lake Superior Tribe of Chippewa Indians of Bad River Rsrv. v. Enbridge Energy Co., Inc.*, No. 19-CV-602-WMC, 2022 WL 4094073 (W.D. Wis. Sept. 7, 2022), ECF No. 262, available at <https://assets.nationbuilder.com/oilandwaterdontmix/pages/3717/attachments/original/1654628101/Report-expert-Enbridge-expert-Neil-Earnest-Muse-Stancil.pdf?1654628101>.

⁴ *Court Documents Expose Enbridge Lies*, Oil & Water Don’t Mix, https://www.oilandwaterdontmix.org/court_documents_expose_enbridge_lies (last visited Oct. 12, 2022).

⁵ Expert Report of Neil K. Earnest, *supra* note 3, at 72.

⁶ Env’tl. Defence, *Closing Enbridge’s Line 5 Pipeline: What Are the Options and Alternatives Available?* (2021), available at <https://environmentaldefence.ca/wp-content/uploads/2022/10/Line-5-Report-S20.pdf>.

⁷ 40 C.F.R. § 1502.14 (2019) (amended 2020).

⁸ See *id.* at § (a).

⁹ *Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1520 (9th Cir. 1992) (internal citations omitted).

¹⁰ *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1310 (9th Cir. 1990) (internal citation omitted) (quoting 40 C.F.R. § 1502.14 (2019) (amended 2020)).

¹¹ See, e.g., *Kootenai Tribe of Idaho v. Veneman*, 313 F.3d 1094, 1122–23 (9th Cir. 2002).

particular alternative.”¹² In fact, “[a]n alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable.”¹³

A review of the existing Line 5 pipeline vs the tunnel as the only two options is inadequate, as other feasible and practicable alternatives exist and ought to be fully explored. To avoid this inadequacy, the alternatives analysis should include an alternative that considers the use of existing capacity to transport the petroleum products the proposed project is designed to accommodate. If existing capacity is inadequate, the alternative should include limited use of alternative forms of transport such as train and truck. As major automotive producers like General Motors pledge to eliminate the internal combustion engine in new vehicles by 2035 and demand for the products currently transported through Line 5 declines accordingly, the alternatives analysis must also consider the necessity of this project in light of projected declining demand for fossil fuels¹⁴ and rapidly increasing availability and reliability of clean energy sources.¹⁵

Further, the “no action” alternative should account for the fact that Enbridge is operating Line 5 in Michigan without a valid easement, and in Wisconsin it continues to operate years after being evicted by the Bad River Band of Lake Superior Chippewa. Recently, Bad River Band was granted summary judgment in its lawsuit against Enbridge for trespassing on Bad River reservation lands since 2013.¹⁶ The trial phase of this case, which begins in October 2022, will determine what remedies are available to cure the trespass, including the possible requirement of shutting down Line 5 through the Bad River reservation. Ongoing lawsuits from the State of Michigan as well could lead to the decommissioning of the Line 5 pipeline in the near future. Thus, in USACE’s alternatives analysis, the “no action” alternative cannot assume Line 5 in its current configuration will continue to function indefinitely.

II. Indirect, cumulative, and connected impacts of this project, including climate impacts and related projects along the path of Line 5, must be fully considered.

The Council on Environmental Quality (CEQ) issued a final rule on April 20, 2022, that revised the definition of “impacts and effects” in 40 C.F.R. § 1508.1 to once again include “direct, indirect, and cumulative effects.”¹⁷ The scope of USACE review must thus include the direct, indirect, and cumulative effects of this project on climate change.

The indirect effects of this project ought to include an analysis of how allowing this project to move forward would unnecessarily lengthen the lifespan of a nearly 70-year-old pipeline and analyze the increased carbon and other greenhouse gas (GHG) emissions that would result.¹⁸ The U.S. Court of

¹² Council on Env’tl. Quality, *Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations* 3-4 (1986), available at <https://www.energy.gov/sites/default/files/2018/06/f53/G-CEQ-40Questions.pdf>.

¹³ *Id.*

¹⁴ Victoria Masterson, *US Fossil Fuel Consumption Is at its Lowest in 30 Years. Here’s Why*, World Econ. F. (July 19, 2021), <https://www.weforum.org/agenda/2021/07/us-fossil-fuel-consumption-eia/>.

¹⁵ Int’l Renewable Energy Agency, *Renewable Capacity Highlights: 31 March 2021* (2021), available at https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2021/Apr/IRENA_-RE_Capacity_Highlights_2021.pdf?la=en&hash=1E133689564BC40C2392E85026F71A0D7A9C0B91.

¹⁶ *Bad River Band of Lake Superior Tribe of Chippewa Indians of Bad River Rsv. v. Enbridge Energy Co., Inc.*, No. 19-CV-602-WMC, 2022 WL 4094073 (W.D. Wis. Sept. 7, 2022).

¹⁷ National Environmental Policy Act Implementing Regulations Revisions, 87 Fed. Reg. 23453 (Apr. 20, 2022), available at <https://www.govinfo.gov/content/pkg/FR-2022-04-20/pdf/2022-08222.pdf>.

¹⁸ As discussed above, the Corps’ analysis of the “no action” alternative should not assume that the pipeline would continue to transport oil if the tunnel is not built, and therefore the Corps should assume that the building of the tunnel will have an impact on the amount of oil transported by the pipeline.

Appeals for the D.C. Circuit has held that such an analysis of the “downstream” emissions impacts of a pipeline is required if the downstream emissions are “reasonably foreseeable”--that is, if it is at least reasonably clear how the product being transported by the pipeline will be used.¹⁹ Such is the case here. It is undisputed that the products currently transported on Line 5 arrive at various defined refineries in the U.S. and Canada such as the Marathon refinery, are refined there and then used for various purposes, such as gasoline, after refining.²⁰ This is a “reasonably foreseeable” enough use that the Corps must analyze the resulting GHG emissions. A credible analysis of cumulative impacts should also consider the resulting social and public health costs associated with the increased GHG emissions from extending the lifespan of this pipeline.

Indirect effects should also include an analysis of the carbon and other GHG emissions resulting from the extraction and refining of the oil and natural gas liquids (NGLs) that will continue to be transported through Line 5 if this tunnel project is constructed. The D.C. Circuit has stated in previous cases that the argument that an agency conducting an EIS cannot determine where the fossil fuel running through a proposed pipeline will be extracted from is “dubious”²¹ and that it was “troubled” by the failure by the Federal Energy Regulatory Commission (FERC) to research this information.²² USACE should heed the court’s suggestion here and analyze where the oil and gas running through Line 5 is extracted from, whether less oil and gas would be extracted if Line 5 is shut down, and what the difference in GHG emissions is between those two scenarios.²³ The extraction of much of the oil transported through Line 5 from the Alberta tar sands is particularly damaging and the Corps should particularly focus on that. The refining of oil and NGLs from Line 5 also include significant GHG impacts and public health and environmental justice impacts borne by communities bordering the refineries, and the EIS must consider these impacts.

Further, this nearly 70-year-old pipeline crosses over 400 Great Lakes tributaries. Each water crossing presents its own unique risks and potential environmental impacts. Given that approval of the tunnel project would allow this outdated pipeline to continue functioning decades past its intended lifespan, the EIS must include a thorough review of the risks and environmental consequences of the continued use of the entire 645 miles of pipeline, not merely the impacts to the approximately 5-mile long project site.

The EIS must also avoid improper segmentation of other pending proposals to modify Line 5, including but not limited to, the proposed reroute of Line 5 through northern Wisconsin. An agency “impermissibly ‘segments’ NEPA review when it divides connected, cumulative, or similar federal actions into separate projects and thereby fails to address the true scope and impact of the activities that should be under consideration.”²⁴ Accordingly, connected actions “should be discussed in the same impact statement.”²⁵

¹⁹ *Food & Water Watch v. FERC*, 28 F.4th 277, 288 (D.C. Cir. 2022); see also *Sierra Club v. FERC*, 867 F.3d 1357, 1374 (D.C. Cir. 2017) (ruling similarly).

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²¹ *Birckhead v. FERC*, 925 F.3d 510, 517-18 (D.C. Cir. 2019).

²² *Food & Water Watch*, 28 F.4th at 286.

²³ The D.C. Circuit ruled in *Food & Water Watch* and *Birckhead* that FERC did not act in an arbitrary & capricious manner in not examining the “upstream” emissions impacts of the pipelines in those cases because the record did not contain the information necessary to conduct such an analysis. It then ruled in both cases that it did not have jurisdiction to consider the argument that FERC should have included more information on upstream impacts in the record, because plaintiffs had not raised that argument before FERC in their request for rehearing. Here, petitioners are expressly asking USACE to include in its EIS information on where the oil and gas Line 5 transports is extracted from, and how the continued operation of Line 5 would impact that extraction.

²⁴ *Del. Riverkeeper v. FERC*, 753 F.3d 1304, 1313 (D.C. Cir. 2014).

²⁵ 40 C.F.R. § 1501.9(e)(1).

Actions are “connected’ if they trigger other actions, cannot proceed without previous or simultaneous actions, or are ‘interdependent parts of a larger action and depend on the larger action for their justification.’”²⁶

The purpose of this broad scope is to ensure a federal agency “can assess the true costs of an integrated project when it is best situated to ‘evaluate different courses of action’ and mitigate anticipated effects.”²⁷ Prohibiting segmentation also “prevents agencies from dividing one project into multiple individual actions each of which individually has an insignificant environmental impact, but which collectively have a substantial impact,” and furthers NEPA’s goal of instilling “a more comprehensive approach so that long term and cumulative effects of small and unrelated decisions could be recognized, evaluated and either avoided, mitigated, or accepted as the price to be paid for the major federal action under consideration.”²⁸ Evaluating the actions separately also risks “foreclos[ing] the opportunity to consider alternatives,” such as whether an alternative with fewer adverse impacts would better serve the public interest.²⁹

The Wisconsin reroute, in particular, is a connected action with this proposed tunnel project and should be considered within the same EIS for the proposed Line 5 tunnel. Without both expansion projects getting approved, Enbridge cannot continue operating the pipeline – it is currently under a legal obligation to remove its pipeline from both locations, so if one project moves forward and the other does not, Enbridge still will lose one essential link in its pipeline route. Because neither this tunnel project nor the re-route in Wisconsin has any real purpose if the other project does not go forward, neither project can proceed without the other. Therefore, these two projects are inextricably related and must be considered in one EIS. Allowing Enbridge to improperly segment permitting requests for multiple concurrent projects on one pipeline could allow it to avoid a thorough review of the cumulative impacts and potential environmental and climate damages of an unnecessary pipeline expansion through critical and fragile ecosystems across the entire length of the pipeline.

III. USACE must thoroughly review the complex geological and hydrogeological conditions in the Straits of Mackinac and remedy the inadequacy of existing geotechnical studies.

Initial geotechnical studies performed on the site for the Line 5 tunnel are inadequate. The Straits of Mackinac is a unique site containing notoriously complex geological and hydrogeological features. The Straits were formed at the end of the last ice age when melting glaciers created what we now know as the Great Lakes. The drilling substrate is not pure bedrock, but a complex and challenging array of different mediums and geological features.³⁰

The amount of boring data collected by Enbridge in support of its project is completely inadequate. While Enbridge claims to be able to build the tunnel “entirely through bedrock,”³¹ the boring data do not support that claim. Because so many borings were terminated before reaching the tunnel invert, the borings that

²⁶ *Id.* at 1309 (quoting 40 C.F.R. § 1508.25(a)(1) (1978)); see also 40 C.F.R. § 1501.9(e)(1) (2020)).

²⁷ *City of Bos. Delegation v. FERC*, 897 F.3d 241, 251-52 (D.C. Cir. 2018) (quoting *Del. Riverkeeper*, 753 F.3d at 1313-14).

²⁸ *Del. Riverkeeper*, 753 F.3d at 1314 (internal quotations and modification omitted).

²⁹ *Id.* at 1315 (internal quotation omitted).

³⁰ See Jack C. Rosenau, *Mackinac Bridge: Final Geologic Report* (1956), available at <https://www.michigan.gov/-/media/Project/Websites/egle/Documents/Programs/OGMD/Catalog/03/Final-Geological-Report.pdf?rev=1b6e73a303e545dcab9381ed00d32153>.

³¹ Notice of Intent To Prepare a Draft Environmental Impact Statement for the Line 5 Tunnel Project, Mackinac and Emmet Counties, Michigan, 87 Fed. Reg. 50074 (Aug. 15, 2022), available at <https://www.line5tunneleis.com/wp-content/uploads/2022/08/2022-17444-NOI.pdf>.

reached the proposed tunnel depth result in an average spacing of approximately 2,100 ft.³² The Corps should require that sufficient boring data be collected by Enbridge before submitting a draft EIS and provide that data to the public for review and comment.

Despite the inadequacy of this analysis, the Geotechnical Data Report (GDR) revealed dissolved methane in groundwater above reportable limits in several locations across the proposed tunnel profile.³³ Dissolved methane in groundwater is a sign of potential methane pockets within the tunnel profile, which are hazardous and could explode while the tunnel is being constructed.³⁴ Without further geotechnical analysis, an encounter with unexpected methane pockets and/or hydrogen sulfide while drilling the tunnel could be fatal for workers, and could also cause an explosion which could impact the existing Line 5 pipeline, as the tunnel profile is situated almost directly beneath the existing pipeline.

Further, 19 rock core samples were taken which showed "very poor" and "poor" rock quality conditions for much of the samples.³⁵ It is recognized that:

The main risk anticipated in this crossing is the potential for high water inflows if highly fractured and permeable rock is encountered and not properly mitigated by either TBM [tunnel boring machine] excavation methods, or by pre-treating the ground ahead of the TBM. The severity of this risk is compounded by the high hydrostatic head and low rock cover in the middle of the crossing. Additional risks are instability of the rock at the face of the TBM, or from squeezing ground around the shield in weaker rocks.³⁶

The scope of the Corps' EIS must address the risks of tunneling through poor rock conditions and the environmental impacts that may result.³⁷

The porosity of the rock cores throughout the tunnel profile was also worse than anticipated. The aquifer test report confirms that the drilling medium is highly fractured and is closer to the porosity of sand than it is to bedrock.³⁸ This means that a large amount of water infiltration into the tunnel during construction ought to be anticipated. Due to the tunnel design, with the low point in the middle of the Straits, water would settle at the bottom of the tunnel and need to be pumped out from the middle of the Straits, fighting gravity the whole way. This could create another hazard for workers inside the tunnel, and Enbridge has not produced a plan detailing how extreme water infiltration would be addressed in construction.

³² David Crouthamel, Sam Swartz, & Jake Facey, McMillen Jacobs Associates, *DRAFT Geotechnical Exploration Level of Effort for the Line 5 Replacement Tunnel 5-6* (2021), available at https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Multi-Division/Line-5/MDOT_Question_on_Geotechnical_Investigation_Jan_2021.pdf?rev=2fe08f3e6cf64563869bf19780b1ccac.

³³ See Enbridge Energy, L.P., *Line 5 Replacement and Tunnel Project Geotechnical Data Report* at Appendix F-3 (2020), available at <http://www.deq.state.mi.us/documents/wrd-line5-geotechnical-data-report.pdf>.

³⁴ See e.g., *The 1971 Lake Huron water tunnel explosion*, Detroit News (July 4, 2020), <https://www.detroitnews.com/picture-gallery/news/local/michigan-history/2016/09/17/the-1971-lake-huron-water-tunnel-explosion/90513460/> (detailing a methane explosion).

³⁵ Enbridge Energy, L.P., *supra* note 33, at 104.

³⁶ Crouthamel, Swartz, & Facey, *supra* note 32, at 2.

³⁷ See Thomas W. Pennington, *Tunneling Beneath Open Waters: A Practical Guide for Risk Management & Site Investigations* 76 (2011), available at <http://cdn.wspgroup.com/8kzmue/tunneling-beneath-open-water-a-practical-guide-for-risk-management.pdf>; Crouthamel, Swartz, & Facey, *supra* note 32, at § 3.3

("However, due to the highly fractured and poorly cemented brecciated nature of the rock based upon core recovery and RQD data, it is possible that the ground behavior will be very poor, especially in the zone of lowest rock cover.").

³⁸ Enbridge Energy, L.P., *supra* note 33, at Appendix F-4.

The Dynamic Risk (DR) study commissioned by the State of Michigan has been used as justification for the tunnel being a safe alternative to the existing pipeline in the Straits. However, the DR study assumed a “sealed annulus” design in its risk assessment section, in which the completed tunnel would be backfilled with grout and concrete around the pipeline.³⁹ The DR risk assessment did not assess the risks associated with the “open annulus” design that Enbridge has proposed. The open annulus design comes with far greater risks, including tunnel collapse, water infiltration into the completed tunnel, and a much higher explosivity risk as the tunnel would contain a hazardous liquids pipeline, electricity, oxygen, and space for water to infiltrate.

Lastly, Enbridge has proposed using a slurry-balanced TBM to complete this tunnel.⁴⁰ Slurry-balanced TBMs are not optimal for mixed-face tunneling (tunneling through both bedrock and softer ground, like soil), which should be anticipated given the poor rock quality, lack of information about the complete hydrogeological profile of the tunnel, and high probability for water infiltration. A slurry-balanced TBM must be correctly pressurized to meet the pressure of the surrounding rock. Given the location of the tunnel underneath the Straits of Mackinac, high pressures should be anticipated, and an incorrectly pressurized slurry-balanced TBM could cause either a blow-in or blow-out, presenting another hazard to workers and another opportunity for mistakes during construction to cause a rupture of the existing pipeline above.

Slurry-balanced TBMs also commonly encounter tunneling issues and get stuck while in operation. The standard way to free a stuck TBM is to dig a hole from the surface, pull it out, fix it, and put it back in. This would be impossible given that the tunnel will be underneath the Straits of Mackinac. Enbridge has not produced a plan for how to fix a stuck TBM under the Straits of Mackinac.

The inadequacy of the geotechnical review has not been considered by either the review of Michigan EGLE, or MPSC. USACE must thoroughly review the complex geological and hydrogeological conditions that exist in the Straits of Mackinac and could preclude the feasibility of safely building a tunnel in this location.

IV. USACE must assess risks of damaging potential archaeological and cultural sites near the tunnel profile in partnership with the Michigan State Historic Preservation Office and relevant Tribal Historic Preservation Offices.

USACE must meaningfully consult with Tribal Nations, the State Historic Preservation Officer, and the Advisory Council on Historic Preservation in the National Historic Preservation Act (NHPA) during the NHPA-mandated “Section 106” tribal consultation process regarding potential adverse effects to the potential 10,000-year-old Indigenous cultural site that has been located at the bottom of the Straits of Mackinac, near the proposed tunnel project.⁴¹

³⁹ Dynamic Risk Assessment Sys., Inc., *Alternatives Analysis for the Straits Pipelines* 273 (2017), available at <https://mipetroleumpipelines.org/document/alternatives-analysis-straits-pipeline-final-report>.

⁴⁰ Letter from Michael Bagale, Project Dir.: Great Lakes Tunnel Project, Enbridge Energy, L.P., to Ryan Mitchell, Innovative Contracting Manager, Mackinac Straits Corridor Auth. 209 (Feb. 1, 2021), available at https://www.michigan.gov/-/media/Project/Websites/MDOT/About-Us/Commissions/MSCA/Documents/Enbridge_Submittal_Jointly_Developed_Project_Specs.pdf?rev=456bc5d8907940fe9f1c80eca279c5dd.

⁴¹ *Group Discovers 10,000 Year Old Archaeological Find in Straits of Mackinac*, 9& 10 News (Oct. 23, 2020), <https://www.9and10news.com/2020/10/23/group-discovers-10000-year-old-archaeological-find-in-straits-of-mackinac/>.

Tunnel construction could destroy this potential world heritage site and important cultural resource for local Tribal nations, and all care must be taken to ensure that this will not happen. Michigan EGLE did not review this site before issuing permits; however, they recommended that USACE do so. The site in question has also not been a part of the MPSC review. As this site is a recent discovery made by local Tribal citizens, there is a lot of work needed to analyze the site, its historic importance, and how the proposed tunnel project construction might impact it.

V. USACE must thoroughly evaluate the risk of explosion both during construction and during operation once construction is completed.

As was discussed earlier, more research is needed in order for USACE to thoroughly understand the potential risks. There is also a risk of explosion during operation of the pipeline, which has been discussed in the MPSC case and ought to be considered by USACE as well.

Over the course of MPSC's review of this proposal, expert testimony indicated a significant risk of explosion due to operating an oil and NGL pipeline within the confines of a subterranean tunnel with an open annulus design. As opposed to a sealed annulus design, in which the tunnel would be filled with grout and concrete, an open annulus design would ensure that air is present within the confined space of a tunnel, along with electricity and the pipeline. A pinhole leak of natural gas liquids could cause an explosion given the presence of electricity and oxygen. Further, PHMSA expressed concerns to MPSC about the operations and maintenance of this pipeline within the confined space of a tunnel, however did not elaborate on specific concerns. USACE must fully evaluate this risk.

VI. USACE must consider the full history of environmental and safety violations committed by Enbridge as it considers potential environmental impacts of the project.

On July 15, 2010, an Enbridge executive testified in Congress that the Enbridge control center could detect leaks and respond almost instantaneously.⁴² On the same day, Enbridge asked PHMSA to allow Line 6B to operate for another 2 ½ years, despite knowing of over 300 defects in the pipeline.⁴³ Ten days later, Line 6B ruptured and far from an instantaneous response, Enbridge misread its own safety equipment, increased pressure in the pipeline, and pumped it for 17 hours, spilling 1.1 million gallons of diluted bitumen into Talmadge Creek and the Kalamazoo River.⁴⁴ A National Transportation Safety Board investigation into the spill concluded that “[t]he rupture and prolonged release were made possible by pervasive organizational failures at Enbridge”⁴⁵

Things have not changed at Enbridge since 2010, as their continued actions indicate. Enbridge employees have misled and at times outright lied to Michigan regulators about the condition of Line 5.⁴⁶ On April 1, 2018, a vessel anchor was dragged through the Straits of Mackinac, tearing out underwater

⁴² *Enbridge Pipeline Oil Spill in Marshall, Michigan: Hearing Before the H. Comm. on Transp. and Infrastructure*, 111th Cong. (2010), available at <https://www.govinfo.gov/content/pkg/CHRG-111hrg58236/html/CHRG-111hrg58236.htm>.

⁴³ *Id.*

⁴⁴ Nat'l Trans. Safety Bd., No: PAR-12-01, *Enbridge Incorporated Hazardous Liquid Pipeline Rupture and Release, Marshall, Michigan, July 25, 2010* (2012), available at <https://www.nts.gov/investigations/AccidentReports/Reports/PAR1201.pdf>.

⁴⁵ *Id.* at xii.

⁴⁶ See Garret Ellison, *Enbridge Knew About Line 5 Coating Damage in 2014*, Mich. Live (Oct. 27, 2017), https://www.mlive.com/news/2017/10/enbridge_line_5_damage_2014_de.html.

cables and leaving three large gouges in Line 5.⁴⁷ Enbridge's audio detection mechanisms failed, a pig in the pipeline failed to detect the damage, and it took two weeks for the company to get a remotely operated vehicle capable of diving to pipeline depth onsite to review the damage to the pipeline.⁴⁸ Throughout this entire process, Enbridge never shut down Line 5, even though it was damaged and it did not know the extent of the damage.

In 2020, Michigan Attorney General Dana Nessel sought and received a preliminary injunction in *Nessel v Enbridge* to temporarily shut down Line 5 after underwater screw anchors attached to Line 5 were damaged, likely by an Enbridge-contracted vessel.⁴⁹ After discovering the damage and reporting it to the state and PHMSA, Enbridge unilaterally decided to re-open the pipeline before taking action to determine what had caused the damage and whether or not the twin pipelines were still safe to operate. It took the preliminary injunction for Enbridge to shut down the pipeline until the source and extent of the damage could be fully assessed.

In 2021, Enbridge rebuilt the Line 3 pipeline across Minnesota. There were at least 28 distinct frac-outs and spills of drilling mud during construction, including at least three artesian aquifer breaches, releasing an estimated 300 million gallons of groundwater.⁵⁰ Each of these 28 frac-outs constitute separate violations of their Clean Water Act section 404 water quality certification permit. This means that a staggering 63% of Enbridge's horizontal directionally drilled (HDD) water crossings were polluted with drilling fluid. Enbridge's construction plans and practices failed most of the time when it came to Line 3 water crossings. USACE should take into account Enbridge's history of poor construction, operation, and maintenance practices when conducting its EIS. Enbridge's continuing culture of disregard for environmental protection and safety materially affects the likely environmental impact of this project.

VII. Conclusion

The unique risks of building this project in the Straits of Mackinac warrant a thorough and broad EIS from USACE. Feasible and prudent alternatives to transporting oil in a nearly 70-year-old pipeline through a critical ecosystem that has been identified as the worst place in the Great Lakes for an oil spill exist and must be explored. Enbridge has failed to fully research the unique geological and hydrogeological landscape it intends to drill this tunnel through, and it has failed to produce the kind of detailed construction plans and research that would answer critically important questions that remain about this project. The climate impacts and effects of this project will also be extreme and all indirect, cumulative, and connected impacts of the project must be fully understood and acknowledged. The impacts of this project on unique cultural and archaeological sites, and the likely impacts to indigenous communities, treaty fishing grounds, and treaty rights also must be fully explored. The past and current irresponsible practices demonstrated by Enbridge further call into question whether or not it is capable of fulfilling its obligations under permits when issued, and whether or not it can be trusted to build an oil tunnel

⁴⁷ *Pipeline Safety in the Great Lakes: Incident Prevention and Response Efforts at the Straits of Mackinac: Hearing Before the S. Comm. on Commerce, Sci., and Transp.*, 115th Cong. (2018), available at <https://www.commerce.senate.gov/2018/8/pipeline-safety-in-the-great-lakes-incident-prevention-and-response-efforts-at-the-straits-of-mackinac> .

⁴⁸ *Id.*

⁴⁹ Ryan Jarvi, *Judge Orders Line 5 to Cease Operations*, Mich. Dep't of Att'y Gen. (June 25, 2020), <https://www.michigan.gov/ag/news/press-releases/2020/06/25/judge-orders-line-5-to-cease-operations>.

⁵⁰ *28 Spills in 21 Water Crossings Shows Enbridge Plans to Protect Water Failed Most of the Time*, Minn. Env'tl. Partnership (Oct. 2021), <https://www.mepartnership.org/wp-content/uploads/2021/10/28-Spills-in-21-Water-Crossings-September-2021.docx.pdf>.

underneath roughly 20% of the world's fresh surface water. We strongly encourage USACE to include all of these issues within the scope of this EIS.

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