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Michigan Department of Environment,
Great Lakes, and Energy (EGLE)
Water Resources Division
Gaylord District Office
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Submitted by email and electronic submission through MiEnviro Portal

Re: Comments of Flow Water Advocates, Sierra Club, and Surfrider Foundation on the Enbridge Great Lakes Tunnel Project Permit Applications, No. HQ3-8BYB-N9DT1

Dear Director Roos and EGLE Water Resources Division Staff:

The undersigned officers and attorneys for For Love of Water, d/b/a Flow Water Advocates (FLOW),[1] together with those for Sierra Club,[2] and Surfrider Foundation[3] hereby submit these comments to outline the legal standards that the Michigan Department of Environment, Great Lakes, and Energy (EGLE) must apply in reviewing Enbridge's above-referenced permit application in accordance with the requirements of the Public Trust Doctrine (PTD), the Great Lakes Submerged Lands Act (GLSLA),[4] the Wetland Protection Act (WPA),[5] and the Michigan Environmental Protection Act (MEPA).[6]

[1] Flow Water Advocates is a nonprofit law and policy center based in Traverse City, Michigan, and dedicated to ensuring that the waters of the Great Lakes are healthy, public, and protected for all. https://flowwateradvocates.org/about-us/mission-and-goals/.
[2] The Sierra Club, America's largest grassroots environmental organization, uses all legal means to protect every person's right to get outdoors and access the healing power of nature, promote clean energy, safeguard the health of our communities, protect wildlife, and preserve our remaining wild places through grassroots activism, public education, lobbying, and legal action. https://www.sierraclub.org/about-sierra-club.
[3] Surfrider Foundation is a nonprofit organization dedicated to the protection and enjoyment of the world's oceans, waves, and beaches, for all people through a powerful activist network. Surfrider has several Great Lakes Chapters, including a chapter in Northern Michigan. https://www.surfrider.org/mission.
[4] MCL § 324.32501 et seq.
[5] MCL § 324.30301 et seq.
[6] MCL §324.1701 et seq.

Introduction

These comments are grounded in the fundamental premise that the entire tunnel project (the "Project") is within the scope of EGLE's regulatory review.[7] Allowing Enbridge to sidestep review of the entire Project ignores the explicit language of Michigan's Natural Resources and Environmental Protection Act (NREPA) Parts 17, 303, and 325, abrogating EGLE's duty to protect the public interests and rights in our shared public trust waters and natural resources. When the evidence is considered within the regulatory frameworks outlined in NREPA and the common law PTD, it is evident that Enbridge's application for a Water Resources Permit for the Project must be denied.

These comments incorporate and build on the legal analysis presented in the 2020 permit application comments submitted by FLOW.[8] In the interim, the adoption of the Michigan Healthy Climate Plan,[9] an important effort led by this agency, and the 2023 passage of Michigan's Clean Energy and Climate Action Laws have provided the State and its agencies with the mandate to prioritize the transition away from new fossil fuel developments like the Line 5 tunnel–with the goal of a 50% renewable energy standard by 2030, a 60% renewable energy standard by 2035, and a 100% clean energy standard by 2040.[10] The Project is intended to extend the life of Line 5 for 99 years, resulting in billions of tons of carbon dioxide being released into the atmosphere,

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[7] This is supported by (1) GLSLA Section 32512 which requires a permit for dredging of placing spoil or other material on bottomland, with a few inapplicable exceptions; (2) GLSLA Section 22510(1), which reads: "a person who excavates of fills *or in any manner alters or modifies* any of the land or waters subject to this part without the approval of the department is guilty of a misdemeanor[.]" (emphasis added), and; (3) EGLE's own Rule 322.1001(h), which defines "dredging" to include "removal of any mineral, organic, or other material from or within the bottomland or waters of the Great Lakes by any means."

[8] On October 19, 2020, FLOW submitted comments to EGLE and the Michigan DNR on the Water Resources Permit Application # HNY-NHX4-FSR2Q. https://forloveofwater-wp-uploads.s3.us-east-2.amazonaws.com/wp-content/uploads/2020/10/Line-5-Tunnel-EGLE-Comments-October-2020.docx.pdf.

[9] EGLE, MICHIGAN HEALTHY CLIMATE PLAN (April 2022), https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Offices/OCE/MI-Healthy-Climate-Plan.pdf?rev=d13f4adc2b1d45909bd708cafccbfffa.

[10] Governor Whitmer Signs Historic Clean Energy & Climate Action Package (Nov. 28, 2023), https://www.michigan.gov/whitmer/news/press-releases/2023/11/28/governor-whitmer-signs-historic-clean-energy-climate-action-package.

including through construction[11] and consumption here in Michigan.[12] Governor Whitmer said upon signing the climate bill package into law:

> I am proud that these bills make Michigan the best state in the Midwest for climate action and the strongest state in the nation when it comes to labor standards for clean energy production. Together, we are fighting for our air, land, and water, improving public health and protecting our precious natural resources for future generations. We are building the future in Michigan.[13]

This legislation was passed to further Michigan's goal of "economy-wide carbon neutrality no later than 2050."[14] Authorizing the Project is fundamentally at odds with Michigan's climate commitments.

Our comments are also now further bolstered by the abundance of new information brought to light over the last 5 years, notably including:

- the 2021 McMillen Jacobs & Associates (now d/b/a Delve Underground) Technical Memoranda[15] commissioned by the Michigan Department of Transportation, which raise several red flags concerning the Project plans;

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[11] DEIS, section 4.11.7.2, *Applicant's Preferred Alternative* at 4-141 ("Construction equipment, generator sets, employee commuting, deliveries, and excavated materials [would] create direct and indirect, short-term, detrimental impacts to local air quality emissions for the duration of construction").

[12] 129,600 barrels of crude oil are sent to refineries daily in Detroit and northern Ohio and about 2,000 barrels per day of natural gas liquids are extracted at Rapid River, in the Upper Peninsula. *See Enbridge's Line 5 Economic Benefit Fact Sheet*, https://www.enbridge.com/~/media/Enb/Documents/Factsheets/FS_Line5_VitalPieceMichigansInfrastructure.pdf?rev=4f8a948532c7405cb978b5b3bb2d9e80&hash=EB4602B59969352C06C3C84F5E168D6D.

[13] *Governor Whitmer Signs Historic Clean Energy & Climate Action Package*, Executive Office of the Governor (November 28, 2023), https://www.michigan.gov/whitmer/news/press-releases/2023/11/28/governor-whitmer-signs-historic-clean-energy-climate-action-package.

[14] EGLE, MICHIGAN HEALTHY CLIMATE PLAN, 26-27 (April 2022), https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Offices/OCE/MI-Healthy-Climate-Plan.pdf?rev=d13f4adc2b1d45909bd708cafccbfffa.

[15] MJA, DRAFT GEOTECHNICAL EXPLORATION LEVEL OF EFFORT FOR THE LINE 5 REPLACEMENT TUNNEL (January 13, 2021), https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Multi-Division/Line-5/MDOT/2021-01-13-Memo-Geotechnical-Exploration-DRAFT.pdf?rev=8b564bb3c4614aaeaea4696b55c1a5ea&hash=AAC7E437B2FA21300E308089F8D401FF; MJA, FINAL RISK MITIGATION FOR THE LINE 5 REPLACEMENT TUNNEL (January 13, 2021), https://www.michigan.gov/-/media/Project/Websites/egle/Documents/Multi-Division/Line-5/MDOT/2021-01-13-Memo-Risk-Mitigation.pdf?rev=532560ac752049b9a9817f42ca4a65b0; MJA, COLLAPSE POTENTIAL FOR THE LINE 5 REPLACEMENT TUNNEL (January 13, 2021), https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Multi-Division/Line-5/MDOT/2021-01-13-Memo-Collapse-Potential.pdf?rev=365d55bcdae340df8649f105dc259c26.

- the October 2023 PLG Consulting Report on the availability of feasible and prudent alternatives that avoid piping oil through the Straits;

- the January 2025 Institute for Energy Economics and Financial Analysis report on the economic impracticality and likely negative consumer impacts of the Project;[16]

- and the many additional reports and resources cited below.

We also incorporate by reference the comments of Michigan's sovereign tribal nations, and the many environmental and business organizations and concerned citizens expressing opposition to this Project. We urge EGLE to honor the treaty rights raised in public comment and tribal consultations, and to protect all Michiganders' rights to a livable climate and healthy waterways.

Comments

These comments address the following common law and statutory requirements:

- Under the GLSLA and its Rules no construction permit can be granted "unless the department has determined both of the following: (a) That the adverse effects to the environment, public trust, and riparian interests of adjacent owners are minimal and will be mitigated to the extent possible. (b) That there is no feasible and prudent alternative to the applicant's proposed activity which is consistent with the reasonable requirements of the public health, safety, and welfare." Rule 322.1015.

- Under the WPA, unless Enbridge demonstrates that the project is in the public interest, as required by Sections 30311(1),(2), and demonstrates that there will be no unacceptable aquatic impacts and that there exist no feasible and prudent alternatives, as required under Section 30311(4), the permit is prohibited.

- Section 1705(2) of MEPA requires EGLE to consider and determine whether there are likely adverse environmental effects (direct, indirect, and cumulative) from the proposed "conduct"—the Project. If it is determined that such effects are likely, the permit or approval is prohibited if there exists a feasible and prudent alternative that is consistent with the reasonable requirements of the public health, safety, and welfare.

[16] IEEFA, ENBRIDGE SHOULD CONSIDER CLOSING ITS OLD TROUBLED LINE 5 PIPELINE: GIVEN ITS HIGH CAPITAL COSTS AND UNCERTAIN FUTURE (January 7, 2025), https://ieefa.org/resources/enbridge-should-consider-closing-its-old-troubled-line-5-pipeline.

Our analysis below sets forth EGLE's legal responsibilities under the PTD and Parts 325, 303, and 17 of NREPA and ultimately concludes that EGLE cannot lawfully approve this permit.

I. The Project will Have Significant and Unacceptable Aquatic and Environmental Effects and Impacts

The Public Notice and Enbridge's Application focus primarily on the impacts from the proposed construction within 1.53 acres of wetlands.[17] These impacts are significant and unacceptable under the WPA and MEPA. They are also just the tip of the iceberg.

A. Construction and operation impacts

Throughout the state and federal permitting processes, Enbridge has failed to provide sufficient information on the scope of wetlands, species, and culturally significant lands, resources, and ecosystems that stand to be impacted (and have already been impacted)[18] by Project construction and operation, including but not limited to intensive traffic over the years-long construction period, the impacts of construction on groundwater, light and noise pollution, and the impacts of vibration during construction and operation. These impacts are further detailed in comments submitted by the Bay Mills Indian Community and ELPC and MiCAN, which we incorporate here by reference.

B. Climate impacts

EGLE is required to do a climate analysis under the GLSLA, and WPA, and MEPA. This analysis must necessarily include the climate impacts of the continued operation of Line 5 on Michigan's public trust resources. "The public trust doctrine, like all common law principles, should not be considered fixed or static, but should be molded and extended to meet changing

[17] Application #HQ3-8BYB-N9DT1; EGLE Public Notice, Enbridge Energy Line 5 Straits of Mackinac, HQ3-8BYB-N9DT1, 1 (July 16, 2025) ("The applicant proposes to fill, grade, and construct within 1.53 acres of wetlands in Mackinac County on Point LaBarbe. Activities include building construction, construction laydown areas, tunnel portal construction, and road improvements within wetlands").

[18] *See* Caitlin Looby, *Unearthed bones, land swap, expedited review: Enbridge Line 5 tunnel review leaves tribes behind*, MILWAUKEE JOURNAL SENTINEL (July 2, 2025), https://www.jsonline.com/story/news/investigations/2025/07/02/tribal-consultation-gaps-revealed-in-enbridge-line-5-tunnel-project/84268142007/.

conditions and needs of the public it was created to benefit."[19] While EGLE may have not sought to quantify and consider the carbon emissions of pipeline projects in the past, doing so now is a scientific, environmental, and economic imperative.

When gasoline and diesel fuel are burned, they produce carbon dioxide, a greenhouse gas (GHG), carbon monoxide, nitrogen oxides, particulate matter, and unburned hydrocarbons.[20] The overwhelming scientific consensus holds that these unavoidable byproducts of petroleum combustion have profound environmental, climactic, and public health consequences that are now quantifiable and monetizable. Line 5 transports approximately 8.4 billion gallons of crude oil and natural gas liquids per year (23 million gallons per day).[21] According to the Michigan Department of Health and Human Services, GHG emissions have already resulted in the impairment of Michigan's natural resources – effects that will get worse unless CO_2 emissions are abated.[22]

In the Healthy Climate Plan, this agency acknowledged the increased climate impacts felt in Michigan, concluding "[i]f we do not act aggressively to reduce greenhouse gas (GHG) emissions, these changes will only intensify, and the impacts will become more challenging, dangerous, and expensive for Michigan residents. It is imperative that we reduce emissions as quickly as possible

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[19] *Borough of Neptune City v. Borough of Avon-By-The-Sea*, 294 A.2d 47, 54 (N.J. 1972).
[20] EIA, *Gasoline and the Environment*, https://www.eia.gov/energyexplained/gasoline/gasoline-and-the-environment.php (last visited Aug. 21, 2025).
[21] *Line 5 in Michigan*, EGLE, https://www.michigan.gov/en/egle/about/Featured/Line5/overview (last visited Aug. 29, 2025).
[22] *Present and future climate impacts in Michigan according to MI Dept of Health and Human Services and National Climate Assessment:*
• Increased severity and frequency of storm events
• Water-borne diseases from flooding, sewage overflows, septic failures, and development of harmful algal blooms.
• Increased heat wave intensity and frequency, increased humidity, degraded air quality, and reduced water quality will increase public health risks
• Increased heat stress causing ecosystem disturbance, crop failures and reduced yields
• More frequent flooding with associated soil erosion, declining water quality and beach health.
• More numerous late spring freezes detrimental to fruit crops
• Increased aquatic invasive species and harmful blooms of algae, and declining beach health.
• Negative impacts on transportation, agriculture, human health, and infrastructure
MDHHS, MICHIGAN CLIMATE AND HEALTH PROFILE (2015). *https://www.michigan.gov/documents/mdhhs/MI_Climate_and_Health_Profile_517517_7.pdf.*

and simultaneously prepare for the changes we cannot prevent."[23]

Between 1895 and 1999, "[w]ithin the Great Lakes region, air temperatures increased 0.7º C (1.26º F)" and "based on climate model predictions, summer temperatures in the Great Lakes region are projected to rise by at least 3°C (5.4°F), and as much as 11°C (19.8°F) by 2100. [While a] few degrees may not sound like much . . . it can have a huge impact on the ecology and economy of the Great Lakes region."[24] Michigan of course is already seeing those impacts on its waters. The Great Lakes' average ice cover decreased by a startling 71% between 1973 and 2010.[25] A decrease in ice cover results in:

> more open water and moisture that can be picked up and turned into lake effect precipitation for downwind communities. It also means that more water evaporates from the surface of the lakes leading to lower lake levels . . . many different ecosystems also rely on ice cover during the winter. Whitefish, for instance, use the ice cover to protect its eggs from big winter storms, which rile up the water. Making matters worse, if ice loss continues, cold-water fish like the whitefish might have to now compete with warm-water fish for the same resources."[26]

As the Michigan Healthy Climate Plan emphasizes "[a]long with more severe extremes, uncertainty in temperatures has also presented newfound challenges, especially for seasonal activities and industries like farming, hiking, camping, boating, skiing, snowmobiling, and ice fishing."[27]

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[23] EGLE, MICHIGAN HEALTHY CLIMATE PLAN, 26-27 (April 2022), https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Offices/OCE/MI-Healthy-Climate-Plan.pdf?rev=d13f4adc2b1d45909bd708cafccbfffa.

[24] INTERNATIONAL ASSOCIATION FOR GREAT LAKES RESEARCH, THE GREAT LAKES AT A CROSSROADS PREPARING FOR A CHANGING CLIMATE, (last modified March 3, 2015), https://ohioseagrant.osu.edu/products/206d9/the-gl-at-a-crossroads-preparing-for-a-changing-climate.

[25] J. Wang, et. al, *Temporal and Spatial Variability of Great Lakes Ice Cover, 1973–2010*, J. Climate *25*, 1318–1329 (Feb 15, 2012), https://journals.ametsoc.org/view/journals/clim/25/4/2011jcli4066.1.xml.

[26] Tom Di Liberto, *Great Lakes ice cover decreasing over last 40 years* NOAA Climate (July 9, 2018), https://www.climate.gov/news-features/featured-images/great-lakes-ice-cover-decreasing-over-last-40-years.

[27] EGLE, MICHIGAN HEALTHY CLIMATE PLAN, 11 (April 2022), https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Offices/OCE/MI-Healthy-Climate-Plan.pdf?rev=d13f4adc2b1d45909bd708cafccbfffa.

C. Impacts resulting from an explosion or other failure, including the potential for a catastrophic oil spill

The publicly available information on the Project design and site plans raises more questions than answers about the viability and safety of the Project. Considering the numerous red flags raised, to approve the Project would run in direct contradiction to the promotion of public health, safety and welfare in light of the State's paramount concern for the protection of its natural resources from pollution impairment or destruction. In fact, the studies that have been conducted to date directly contradict the assumptions presented in Dynamic Risk's 2017 report, which informed the 2018 Easement, the Assignment, and the 99-year Tunnel Lease, and which included the understanding that the Project would encounter "good rock conditions and minimal water inflow."[28]

Based on the information available, we have several concerns that we believe require further exploration, including but not limited to:

- The identification of poor and very poor rock quality in the geologic strata along the tunnel alignment,[29] including the presence of at least 10 voids in the bedrock– empty spaces, cavities, or fractures in the rock layers that present significant engineering challenges including water infiltration due to the very high hydraulic conductivity and hydrostatic pressure that the tunnel construction will encounter.[30]
- The likelihood of additional dangerous voids between the sparse borings taken.[31]
- The identification of dissolved methane in samples from the Enbridge Geotechnical Data Report,[32] and the proposed site's location directly above the Collingwood-Utica Shale Oil and Gas play, capable of yielding gas and oil in recoverable quantities,[33] raising concerns

[28] DYNAMIC RISK ASSESSMENT SYSTEMS, INC, ALTERNATIVES ANALYSIS FOR THE STRAITS PIPELINES – FINAL REPORT, P.3-59 (2017), https://www.michigan.gov/psab/-/media/Project/Websites/psab/archive/media/SOM201701-Report-Rev-1.pdf.
[29] MJA, DRAFT GEOTECHNICAL EXPLORATION LEVEL OF EFFORT FOR THE LINE 5 REPLACEMENT TUNNEL, p.8 (January 13, 2021).
[30] MJA, COLLAPSE POTENTIAL FOR THE LINE 5 REPLACEMENT TUNNEL, pp. 2-3 (January 13, 2021).
[31] *Id.* at 10.
[32] WSP, ENBRIDGE GEOTECHNICAL DATA REPORT, March 2020, p. 32.
[33] USGS, *Assessment of Continuous Oil and Gas Resources in the Ordovician Collingwood Formation and Utica Shale of the Michigan Basin Province*, (2019), https://pubs.usgs.gov/fs/2020/3027/fs20203027.pdf ("However,

for the safety of workers and increasing the potential risks of explosion.[34]

- The extreme atmospheric pressures under which the tunnel is intended to be constructed–*16.8 atmospheres of pressure*–which the US Army Corps of Engineers' (USACE) Draft Environmental Impact Statement (DEIS) indicates may be the highest ever in an underwater tunnel construction project.[35]
- The projected water inflows which could "potentially exceed NPDES discharge levels and overwhelm the water treatment facilities."[36]

This new information, especially when considered alongside the subsequent changes in the design of the tunnel (from the closed annulus, 10-foot diameter tunnel that was originally pitched to the State to an open annulus, 21-foot diameter tunnel)[37] support denial of this permit. Despite these red flags, several unremedied deficiencies in the data gathered by Enbridge remain unaddressed:

> Based on the anticipated tunnel alignment, the existing geotechnical borings have data gaps which elevate the uncertainty of the presence of risks within the alignment. These data gaps are a result of drilling depths that stopped short or did not extend through the tunnel profile. There is also limited hydraulic conductivity testing near or within the tunnel profile.[38]

Specifically, MJA found that some borings terminated "more than one tunnel diameter (assumed approximately 20 ft excavated) above the proposed alignment."[39] This departs from industry best practices as, "[t]ypically, the industry recommends that investigational borings would be drilled through the tunnel alignment and beneath the tunnel profile (tunnel invert) to fully investigate the ground conditions surrounding the tunnel envelope"[40] MJA additionally found that there was a

several horizontal wells drilled into the shale of the Collingwood Formation in the central part of the basin produced shale gas, demonstrating that these shales have reached the thermal generation windows for oil and gas").

[34] See this account of the 1971 Port Huron tunnel explosion which was caused by the inflow of methane gas into the tunnel below Lake Huron and resulted in the deaths of 17 workers, James Graham, et. al, *In Michigan History: Deadly Lake Huron tunnel explosion*, The Detroit News (Updated September 19, 2016), https://www.detroitnews.com/story/news/local/michigan-history/2016/09/17/deadly-lake-huron-water-tunnel-explosion/90522336/.

[35] DEIS, section 3.14.1.1, Tunnel Construction at 3-153. *See also*, MJA, DRAFT Geotechnical Exploration Level of Effort for the Line 5 Replacement Tunnel, p. 1 (January 13, 2021).

[36] MJA, FINAL RISK MITIGATION FOR THE LINE 5 REPLACEMENT TUNNEL, p. 4 (January 13, 2021).

[37] *Id.* at 3-15.

[38] *Id.* at p. 2.

[39] *Id.* at p. 3.

[40] *Id.* at p. 3.

"significant absence of available data from within the tunnel alignment as BH19-24A [one specific boring site] is the only data point within the alignment over a span of approximately 11,000 ft."[41]

USACE also acknowledged "[t]he risk of encountering challenges due to karst areas, such as personal injuries, environmental damage, and/or economic losses due to halted construction, [noting these risks] can be reduced through early identification and characterization of geological conditions through the use of mechanical and geophysical site investigations (seismic, electrical tomography, georadar)."[42] But as far as we know, no such geophysical investigations and data collection has been done to date, nor is any additional investigatory work apparently planned for the Project. Indeed, Enbridge has failed to assess the risk of blowouts, the potential for collapsing geology, and the possible impacts to the lake bottom above the boring operation, which could potentially damage the still-operational dual pipelines.

USACE further acknowledged that "[t]he currently available geotechnical data contains gaps [and] *[a]s a result, conditions along several portions of the alignment are currently unknown.*"[43] Despite this recognition, the DEIS over-relies on the presumed capabilities of the tunnel boring machine ("TBM") to mitigate the risks of poorly studied geology and downplays the substantial universe of risks identified by all the experts who have reviewed Enbridge's limited geotechnical investigation.[44] The reliance on the TBM and advance probing to solve all construction hazards that will be encountered hundreds of feet below the Straits of Mackinac, some of which may be catastrophic, is an untenable substitute for the kind of risk assessment and analysis required under the law.

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[41] MJA, DRAFT GEOTECHNICAL EXPLORATION LEVEL OF EFFORT FOR THE LINE 5 REPLACEMENT TUNNEL, p. 9 (January 13, 2021).
[42] DEIS, section 4.8.6.1, Applicant's Preferred Alternative at 4-97.
[43] DEIS, section 4.4.3.1.1, *Construction: Groundwater* at 4-44 (emphasis added) (citing WSP 2020; McMillen Jacobs Associates 2021b) (emphasis added).
[44] *Id.* at 4-43, 4-44 (Groundwater drawdown is also a concern during use of the TBM due to the likelihood that groundwater would seep into the Tunnel as it advances, displacing water within the aquifer itself and potentially allowing water levels within the aquifer to lower. Based on the geotechnical data currently available, the rock along the proposed Tunnel alignment is highly fractured and permeable, increasing the risk of groundwater flow into the Tunnel. This risk would need to be mitigated through the use of a fully pressurized TBM (as proposed by the Applicant), and/or by probing ahead of the TBM face as it advances to assess upcoming rock conditions").

Further, the failure of the geotechnical investigation to evaluate the deepest, most challenging, and by far the longest unexamined (two-mile) segment of the proposed tunnel corridor is contrary to the universal recommendations from tunnel engineers around the world. Recent technical publications indicate: "The impact of uncertainty on risk assessment and decision-making is increasingly being prioritized, especially for large geotechnical projects such as tunnels, where uncertainty is often the main source of risk."[45] As the professional literature on tunneling cautions, "[u]nexpected ground conditions are often the main reason for tunneling accidents during construction. Despite recent efforts made to improve existing tunneling technologies, forecasting ground conditions in tunneling remains the most challenging task in tunneling because of significant uncertainties related to the subsurface."[46]

We also incorporate by reference the additional discussion of the changes to the Project plans and the material gaps and deficiencies in the geotechnical studies in the comments of the Grand Traverse Bay Band of Ottawa and Chippewa Indians.

The inherent risks associated with tunnel construction are compounded by the fact that the proposed tunnel is intended to be constructed in the vicinity of the operating dual pipelines through public trust bottomlands located hundreds of feet underwater, and will ultimately house an oil pipeline that ferries hazardous substances through a freshwater system that supplies over 30 million people with drinking water, holds 84% of North America's surface freshwater, and is the backbone of Michigan's economy.

EGLE must therefore consider the potential for a catastrophic oil spill if the Project fails during construction or operation. A 2016 report from the University of Michigan modeled the potential impacts of an oil spill at the Project site, finding around 700 miles of shoreline in Lakes Michigan and Huron and on their islands are potentially vulnerable to an oil release in the Straits that would

[45] Yuanpu Xia, et al, *Risk Assessment and Decision-Making under Uncertainty in Tunnel and Underground Engineering*, ENTROPY,19(10), 549 (2017); https://www.mdpi.com/1099-4300/19/10/549.
[46] R. L. Sousa and H. Einstein, *Lessons from accidents during tunnel construction*, TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY, Volume 113, July 2021 https://doi.org/10.1016/j.tust.2021.103916.

result in accumulation requiring cleanup.[47] The author of the report summarized the findings succinctly, opining that the Straits of Mackinac are "'the worst possible place for an spill in the Great Lakes'" because "'[t]he currents are powerful and change direction frequently. In the event of an oil spill, these factors would lead to a big mess that would be very difficult to contain.'"[48]

EGLE must consider not only the catastrophic impacts posed by a spill in the Straits, but also the potential for spills across the entire stretch of Line 5–a 72-year-old pipeline that has already spilled at least 33 times, resulting in over 1.1 million gallons of spilled oil impacting dozens of communities and ecosystems.[49] Permitting a project that poses such risks, especially when a full risk analysis has not been performed, is inconsistent with EGLE's mandate under the GLSLA, WPA, MEPA, the PTD and the constitutional and public trust rights of Michiganders that these regulatory frameworks protect, as discussed further below.

II. There are Feasible and Prudent Alternates that Would Avoid These Adverse Impacts

The Project is intended to extend the transmission of crude oil and natural gas liquids well into the 22nd Century–with the State taking ownership of the tunnel and Enbridge enjoying an exclusive 99-year lease. In that context, EGLE must evaluate the public and private need for the Project for the next 100 years. It should be of concern to EGLE that members of the global insurance industry are announcing that they will no longer invest in or insure tar sands related projects and pipelines. Zurich Insurance Group, for example, announced an updated fossil fuel policy which commits to cutting both insurance and investment support for companies

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[47] David J. Schwab, Ph.D., *Statistical Analysis of Straits of Mackinac Line 5 Worst Case Spill Scenarios*, UNIVERSITY OF MICHIGAN WATER CENTER, p. 10 (March 2016), https://graham.umich.edu/media/pubs/Mackinac-Line-5-Worst-Case-Spill-Scenarios.pdf.

[48] Morgan Sherburne, S*traits of Mackinac 'worst possible place' for a Great Lakes oil spill, U-M researched concludes*, Michigan News: University of Michigan (July 10, 2014), https://news.umich.edu/straits-of-mackinac-worst-possible-place-for-a-great-lakes-oil-spill-u-m-researcher-concludes/ (quoting Dr. David J. Schwab, discussing his research report, *Straits of Mackinac Contaminant Release Scenarios: Flow Visualization and Tracer Simulations*, UNIVERSITY OF MICHIGAN WATER CENTER (Spring 2014)).

[49] NATIONAL WILDLIFE FEDERATION, THE EDGE OF DISASTER FOR THE GREAT LAKES: NEAR MISSES FROM ENRBRIDGE'S AGING AND DEGRADING LINE 5, 2 (Nov. 20, 2020) https://www.nwf.org/-/media/Documents/PDFs/Press-Releases/2020/11-20-20-Line-5-Report.

significantly involved in tar sands or oil shale.[50] Global leader AXA indicated that it is "phasing out of insurance coverage for new coal construction projects and oil sands businesses.[51]

There is also currently no energy emergency in the United States. In fact, the U.S. Energy Information Agency reported that the "United States produce[d] more crude oil than any country, ever"[52] and will likely continue producing record quantities of crude oil and natural gas through at least 2026.[53] Studies have shown that, if Line 5 shuts down, Michiganders will not go without fuel and will not have to pay more than a penny more for it.[54] While long-term projections are difficult in the current geopolitical climate, many forecasters and energy experts continue to predict that the demand for fossil fuels will peak in 2030.[55] With Enbridge's projected 6-year construction timeline,[56] the new infrastructure may not even be operational before this anticipated downturn in global demand.

The Michigan Healthy Climate Plan and MDHHS report make clear that further prolonging the life of the Line 5 goes against the urgent need to reduce greenhouse gas emissions and accelerate the transition to Michigan's clean energy future, to the detriment of the environment, economy, and public health.[57] We incorporate by reference the comments of Environmental Law

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[50] *Zurich Insurance Group Becomes First Primary Insurer to Commit to Not Underwriting Tar Sands Companies,* Insure Our Future (June 25, 2019), https://us.insure-our-future.com/2019-6-25-zurich-insurance-group-becomes-first-primary-insurer-to-commit-to-not-underwriting-tar-sands-companies/.

[51] *AXA accelerates its commitment to fight climate change,* AXA Worldwide (December 12, 2017), https://www.axa.com/en/press/press-releases/axa-accelerates-its-commitment-to-fight-climate-change.

[52] Erik Kreil, *United States Produces More Crude Oil Than Any Country, Ever*, U.S. Energy Info. Admin. (Mar. 11, 2024), https://www.eia.gov/todayinenergy/detail.php?id=61545; *see also* Mickey Francis, *In 2024, the United States Produced More Energy Than Ever Before*, U.S. Energy Info. Admin. (June 9, 2025), https://www.eia.gov/todayinenergy/detail.php?id=65445.

[53] U.S. Energy Info. Admin., *Short-Term Energy Outlook* (June 10, 2025), https://www.eia.gov/outlooks/steo/data/browser.

[54] PLG CONSULTING, LIKELY MARKET RESPONSE TO A SHUTDOWN OF LINE 5, 72 (October 2023), https://plgconsulting.com/white-paper-likely-market-responses-to-a-line-5-shutdown/.

[55] Resources for the Future, Global Energy Outlook 2025: Headwinds and Tailwinds in the Energy Transition (April 7, 2025), https://www.rff.org/news/press-releases/the-world-is-electrifying-what-does-that-mean-for-our-global-energy-future/.

[56] DEIS, section 4.10, *Transportation and Navigation* at 4-111.

[57] MDHHS, MICHIGAN CLIMATE AND HEALTH PROFILE (2015), https://www.michigan.gov/documents/mdhhs/MI.

and Policy Center and the Michigan Climate Action Network, which include further discussion on the topic. As outlined in the Great Lakes Business Network ("GLBN") and National Wildlife Federation's comments, while extensive economic studies have reassured GLBN members that they do not need Line 5 for affordable and reliable energy, the Great Lakes are essential for these businesses' survival, and Line 5 and the tunnel put them at needless risk. Additionally, while Enbridge has estimated that the Project will cost $500 million to construct, a 2025 Institute for Energy Economics and Financial Analysis places total costs at $1.5 billion and rising and calls into question the Project's economic viability and even the anticipated private benefit.[58]

Enbridge has not supported its claim that a shutdown of Line 5 would result in catastrophic hardships for Michiganders. In fact, the 2023 PLG Report notes "the energy supply chains in North America are characterized by flexibility and overlapping optionality" and highlights several viable supply chain alternatives that must be considered by EGLE.[59] The Report contradicts Enbridge's assertions, finding "energy markets will adapt – as they have always done and continue to do – if Line 5 is shut down. With advance notice, the markets can be expected to do so without supply shortages or price spikes."[60]

Market data cast serious doubt that there is a future public or private need for the tunnel and strongly suggest the need for petroleum products is already waning. EGLE should consider the strong long-term market trends favoring the transition to zero carbon energy generation resources and the abundant and growing evidence of the environmental, economic, and public health impacts associated with the development, transportation, and combustion of fossil fuels. Considering this data and information is essential to fulfil EGLE's responsibility to make an informed determination on this permit application.

Climate_and_Health_Profile_517517_7.pdf; EGLE, MICHIGAN HEALTHY CLIMATE PLAN, 26-27 (April 2022), https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Offices/OCE/MI-Healthy-Climate-Plan.pdf?rev=d13f4adc2b1d45909bd708cafccbfffa.

[58] IEEFA, ENBRIDGE SHOULD CONSIDER CLOSING ITS OLD, TROUBLED LINE 5 PIPELINE, 16 (January 7, 2025), https://ieefa.org/resources/enbridge-should-consider-closing-its-old-troubled-line-5-pipeline.

[59] PLG CONSULTING, LIKELY MARKET RESPONSE TO A SHUTDOWN OF LINE 5, 23 (October 2023), https://plgconsulting.com/executive-summary-likely-market-responses-to-a-line-5-shutdown/.

[60] *Id.* at 40.

III. With this Evidence of Adverse Environmental Impacts and Available Alternatives, EGLE Must Deny Enbridge's Application for a Water Resources Permit under Parts 325, 303, and 17 of NREPA

A. The Great Lakes Submerged Lands Act requires EGLE to deny this permit application because it will result in more than minimal adverse environmental impacts and there are available feasible and prudent alternatives

EGLE must, in administering Enbridge's permit application under Part 325 of NREPA, also determine whether the public trust in the waters will be impaired or substantially affected by the construction of the tunnel. Rule 1015 is clear that EGLE is required to ensure that the "existing and potential adverse environmental effects *shall* be determined" and "[a]pproval *shall not* be granted unless the department has determined both of the following: (a) That the adverse effects to the environment, public trust, and riparian interests of adjacent owners are minimal and will be mitigated to the extent possible. (b) That there is no feasible and prudent alternative to the applicant's proposed activity which is consistent with the reasonable requirements of the public health, safety, and welfare."[61]

The PTD and the GLSLA compel EGLE to determine the effects of the Project on the Great Lakes and its tributary rivers and streams and whether the public trust in these waters will not be impaired or substantially affected. The application materials currently before the agency fail to determine "the existing and potential environmental effects" of the Project. However, the information provided to date, discussed in detail above, makes clear that the "adverse effects to the environment, public trust, and riparian interests" are more than minimal, with the potential to be catastrophic. Further, there are feasible and prudent alternatives that avoid pumping fossil fuels through the heart of the Great Lakes. For all these reasons, Enbridge's application for a construction permit under Part 325 must be denied.

[61] Mich. Admin Code r. 322.1015 (emphasis added).

B. The Wetland Protection Act requires EGLE to deny this permit application because it is not in the public interest, will have unacceptable aquatic impacts, is not wetland dependent, and there are available feasible and prudent alternatives

The issuance of a Wetland Protection Act (WPA) permit requires EGLE to determine that the Project is in the public interest,[62] including but not limited to, whether the Project benefits outweigh the reasonably foreseeable detriments, the extent to which there is a public and private need for the Project, and whether there are feasible and prudent alternative locations and methods to accomplish the expected benefit.[63]

The WPA's mandate to measure the benefits of the Project against its foreseeable detriments compels EGLE to evaluate the many adverse impacts of construction and operation of the Project, discussed above. Applying the public interest balancing test outlined in Section 30311(1) and 30311(2) and consideration of the criteria in Section 30302,[64] the Project will result in unacceptable aquatic impacts, failing the first prong under Section 30311(4). It also fails the second prong, as for projects that are not wetland dependent (e.g. cranberry bogs, peat farms) the WPA expressly requires a determination concerning the availability of feasible and prudent alternatives, and a denial if any feasible and prudent alternative exists. Such alternatives exist here as detailed above, and therefore Enbridge's Application must be denied under the WPA.

[62] MCL 324.30311(1).
[63] MCL 324.30311(2).
[64] This criteria includes the potential loss of the following benefits: flood and storm control; habitat many forms of wildlife, waterfowl, including migratory waterfowl, and rare, threatened, or endangered wildlife species; protection of subsurface water resources and the recharging of groundwater supplies; Pollution treatment by serving as a biological and chemical oxidation basin; erosion control by serving as a sedimentation area and filtering basin, absorbing silt and organic matter; Sources of nutrients in water food cycles and nursery grounds and sanctuaries for fish; agricultural uses.

C. The Michigan Environmental Protection Act requires EGLE to deny this permit application because the Project will cause pollution, impairment, and destruction of Michigan's public trust and natural resources, and are available feasible and prudent alternatives

MEPA codified substantive and procedural rights and duties to protect the paramount public interest in the air, water, and natural resources of Michigan from pollution, impairment, or destruction, as mandated by Art. 4, Sec. 52 of the 1963 Michigan Constitution. Specifically, MEPA, Section 1705(2) applies to any licensing, permitting, or other similar agency proceedings, requiring that so long as "there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare," the Department "shall not authorize" conduct that "has or is likely to have an effect" that causes "pollution, impairment, or destruction of the air, water, or other natural resources, or the public trust in these resources." MEPA is explicit that it "is supplementary to existing administrative and regulatory procedures provided by law."[65]

Michigan's common law rulings relative to environmental quality under MEPA recognize that the statute imposes a substantive duty on EGLE to perform adequate review and consider in permitting, or other approvals required by law or regulations, the likely effects of the conduct under review on the environment and the range of feasible and prudent alternatives that would avoid or minimize such likely effects.[66]

EGLE must determine if extending the service life of Line 5 by authorizing the construction of the Project through the heart of the Great Lakes is "consistent with the promotion of the public health, safety and welfare in light of the state's paramount concern for the protection of its natural resources from pollution, impairment or destruction."[67] This analysis must include an assessment of likely construction and operation impacts, climate impacts,[68] and the potential

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[65] MCL 324.1706.

[66] *See State Highway Dept. v Vanderkloot,* 392 Mich 159, 184; 220 NW2d 416 (1974); *Genesco, Inc v Michigan Department of Environmental Quality*, 250 Mich App 45; 645 NW2d 319 (2002*); Buggs v Michigan Public Service Comm,* 2015 WL 159795 (unpublished).

[67] MCL 324.1703(1).

[68] In 2021, the Michigan Public Service Commission recognized that in conducting its MEPA analysis of the Project

impacts of a failure during construction or operation, including the potential for a catastrophic oil spill. Based on the information detailed above, it is apparent that the Project will result in pollution, impairment and destruction of Michigan's natural resources, and because there are feasible and prudent alternatives, Enbridge's application for a Water Resources permit must be denied.

Requested Action and Conclusion

In the years since Enbridge's last permit application, increasing evidence has emerged that contradicts Enbridge's claims concerning the need and public benefits of the Project, as well as the alleged lack of feasible and prudent alternatives. Enbridge cannot be allowed to avoid this highly relevant information through artificially limiting the scope of its application. EGLE must consider the entire project, including the tunnel through the Great Lakes bottomlands, in its review of Enbridge's application and it must carefully review all the evidence of likely environmental harms and available alternatives.

It is now crystal clear that Enbridge's pursuit of the Line 5 tunnel runs in direct contradiction to the public interest in Michigan's invaluable freshwater resources and the ecosystems they support; in the sacred cultural sites within and surrounding the Straits and the Tribal rights that are inextricably tied to them; in a healthy climate future and a resilient Michigan economy; and in the vested rights of all Michiganders to use and enjoy the State's public trust resources free from the threat of substantial impairment. We therefore urge EGLE to deny Enbridge's application for a Water Resources Permit for the Project, as required under NREPA Parts 325, 303, and 17.

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it was required to include climate considerations finding "GHGs are pollutants within the scope of the clear language of MEPA, and thus the parties are free to introduce evidence addressing the issue of GHG emissions and any pollution, impairment, or destruction arising from the activity proposed in the application." EGLE must come to the same conclusion here. *See* MPSC Order, Case No. U-20763, p. 66 (April 21, 2021) (citing MCL 324.1705(2)), https://mi-psc.my.site.com/sfc/servlet.shepherd/version/download/068t000000MOSVDAA5.

Thank you for the opportunity to provide these comments.

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