

December 15, 2020

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VIA ELECTRONIC SUBMISSION

Public Comments on the Joint Application of Enbridge Energy for proposed pipeline tunnel under the Straits of Mackinac between Mackinaw City and Saint Ignace, Michigan [EGLE File No. HNY-NHX4-FSR2Q] and [Corps File No. LRE-2010-00463-56-A19]

Dear U.S. Army Corps of Engineers Commander Sugrue, Chief Simon, Chief Kuhne, and Regulatory Project Manager Otanez:

On behalf of the 12 undersigned organizations, we submit the following comments on the application No. LRE-2010-00463-56-A19 for U.S. Army Corps of Engineers' (the "Corps") permit for the proposed Enbridge Line 5 tunnel and pipeline project (the "Project" or the "Application") under the Great Lakes.¹

¹ We respectfully request that the U.S. Army Corps of Engineers' District Office adopt and incorporate by reference our July 14, 2020 comments previously submitted, as well as the comments submitted by Earthjustice and Bay Mills Indian Community, Environmental Law and Policy Center, and all previous written comments submitted by For Love of Water ("FLOW") into the record of these proceedings. FLOW has special expertise as a Great Lakes law and policy educational and advocacy organization, as do the other commenting organizations, including Chippewa Ottawa Resource Authority ("CORA"), Clean Water Action, Groundwork Center for Resilient Communities, Northern Michigan Environmental Action Council ("NMEAC"), Michigan Environmental Council ("MEC"), Michigan League of Conservation Voters ("MLCV"), Sierra Club, Straits of Mackinac Alliance ("SMA"), Straits Areas of Concerned Citizens for Peace, Justice, and the Environment ("SACCPJE"), and TC350.org. FLOW has expertise on all aspects of Line 5 and the proposed tunnel and tunnel pipeline, having submitted more than a dozen reports, formal comments, and amicus briefs to federal and state agencies, and the courts; e.g. See [FLOW Comments on Enbridge's Violations of the 1953 Easement for the Line 5 Oil Pipelines in the Straits of Mackinac and Lake Michigan](#) November 12, 2019; [Public Comments on the Joint Application of Enbridge Energy for Anchor Screws for Line 5 Pipelines in the Straits of Mackinac](#) July 19, 2018; [Public Comments on Enbridge's Studies Required by the November 2017 Agreement](#) July 15, 2018; [Public Comments on the Joint Application of Enbridge Energy for 48 New Anchor Screws for Line 5 Pipelines in the Straits of Mackinac](#) May 11, 2018; [Letter to MPSC](#)

I. Introduction

We, the undersigned groups, are writing to request that the Corps conduct an environmental impact statement (“EIS”) pursuant to Section 102(c)(2) of the National Environmental Policy Act (“NEPA”), (42 U.S.C. § 4321-4347) and applicable rules in connection with Enbridge Energy Limited Partnership’s (“Enbridge”) application for a Department of the Army permit under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403) and Section 404(b)(1) (33 U.S.C. § 1344) and 401 of the Clean Water Act (“CWA”) (33 U.S.C. § 1344 and 33 U.S.C. § 1341). For the reasons stated in detail below, (1) the purpose, scope, and nature of the federal action is major, complex, and highly controversial and will significantly affect the human and natural environment, and a full environmental impact statement must be required pursuant to the NEPA before any further action is taken on the Application; or (2) the Application under Section 10 of the Rivers and Harbors Act and 404(b)(1) of the CWA lacks the critical information required to grant a permit, and the permits should be denied.

II. Project Description

The Project submitted by Enbridge in this matter is intentionally designed to avoid full review under the applicable law, including the EIS mandates of the NEPA and the demands for a thorough analysis to demonstrate no practical alternatives to destruction or impacts to wetlands under Section 404 of the CWA. Enbridge characterizes its project as replacing an old dual pipelines system in the Straits of Mackinac to continue transporting crude oil and petroleum liquids between the Peninsulas of Michigan. In fact, the Project involves the construction of a tunnel within public trust bottomlands that would enable the pipeline to transport crude oil and natural gas liquids for another 99 years.

A. Background on 2018 Tunnel Law and Related Agreements for Proposed Project

On December 17, 2018, the Department of Natural Resources (“DNR”) conveyed an “Easement to Construct and Maintain Underground Utility Tunnel at the Straits of Mackinac” to the Mackinac Straits Corridor Authority (“MSCA”). The terms of the [2018 Easement](#) failed to include any environmental findings or approvals from the State of Michigan or the DNR, as well as a determination that the proposed project would benefit or not impair public trust resources, a determination required under the Great Lakes Submerged Lands Act (“GLSLA”) and Michigan’s public trust law. Indeed, paragraph 13 of the Easement makes clear that no such findings or determinations have been made:

“(13) It is expressly understood and agreed that nothing in this easement shall be construed as a statement, representation or finding by the Grantor relating to any risks that may be posed to the environment by activities conducted by the Grantee or that the right-of-way conveyed by this easement is fit for any particular use or purpose.”

[and DEQ on New or Altered Structures of Line 5](#) April 11, 2018; [Supplemental Comments on 2017 Anchor Permit Application](#) February 9, 2018; [FLOW Supplemental Comments on Enbridge Anchor Permit Application](#) October 12, 2017; [Supplemental Comments on the Joint Application of Enbridge Energy to Occupy Great Lakes Bottomlands for Anchoring Supports](#) August 4, 2017; [Comments on the Joint Application of Enbridge Energy to Occupy Great Lakes Bottomlands for Anchoring Supports](#) (with [Appendices: Appendix A, Appendix B, Appendix C, Appendix D, Appendix E](#)) June 29, 2017.

Two days later, on December 19, 2018, the the MSCA executed an [“Assignment of Easement Rights for Utility Tunnel”](#) conveying the easement to Enbridge² in public trust bottomlands as well as a 99-year lease.

B. Project Scope and Construction

The Great Lakes constitute 20 percent of the planet’s fresh surface water, provide drinking water and sustenance to 48 million people in the Great Lakes Basin, and provide the backbone for a \$6 trillion regional economy that would be one of the largest in the world if it stood alone as a country.³ The Project is one of the most ambitious infrastructure projects in size, scope, with short- and long-term effects on the resources of the State of Michigan and the Great Lakes region lasting into the next century. Enbridge’s Application seeks to bore and construct a massive, complex corridor tunnel and pipeline at an estimated cost of over one-half billion dollars⁴ from 60 to 250 feet deep in the bedrock and mixed soils under the waters of the Straits of Mackinac.⁵ If authorized and constructed, Enbridge would operate the tunnel and pipeline for 99 years or more.

The proposed tunnel now has a diameter of 18- to 21-foot-diameter and would be approximately 3.6 miles long, and bored underneath the lakebed of the Straits of Mackinac at depths at least 10 feet below the top of rock or 60 feet below the mud line, whichever is shallower. Approximately 364,000 cubic yards of material would be removed from underneath the lakebed to construct the tunnel. The material would be disposed of in an upland location. Upon tunnel completion, the applicant proposes to install a new 30-inch diameter pipeline within the tunnel for transporting crude oil and natural gas liquids, replacing the existing Line 5 dual pipelines crossing the Straits of Mackinac. The tunnel would be constructed using a tunnel boring machine (“TBM”). Precast 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. At either end or the portals of the tunnel, the boring for the tunnel would require large volumes of water, either groundwater or surface water, in the millions of gallons per day that could affect adjacent drinking water wells and connected wetlands as well as aquatic habitat.

C. Project Environmental Impacts

² Assignment of Easement Rights from MSCA to Enbridge Energy. https://www.michigan.gov/documents/mdot/Assignment_of_Easement_Rights_from_MSCA_to_Enbridge_Energy_684295_7.pdf

³ Great Lakes Commission website, About the Lakes. <https://www.glc.org/lakes/>

⁴ There is no reliable estimate of the cost of the project. Two years ago, in 2018, Enbridge indicated that the project would cost \$500 million prior to indicating that the diameter of the tunnel would be increased from 10 feet to 18-21 feet. The Application’s increase in diameter means that approximately four times as much material must be excavated and disposed of.

⁵ Enbridge has provided conflicting information across its multiple pending permit applications regarding the depth of this proposed tunnel construction and pipeline replacement. In the related Michigan Public Service Commission (“MPSC”) proceedings, Enbridge maintained that “The Project involves relocating underground the portion of Line 5 that crosses the Straits, within a tunnel to be located at a depth of approximately 60 feet to 250 feet beneath the lakebed of the Straits.” In Re: Enbridge Energy, Limited Partnership - Application for the Authority to Replace and Relocate the Segment of Line 5 Crossing the Straits of Mackinac into a Tunnel Beneath the Straits of Mackinac, April 17, 2020 <https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t000000BRSuOAAX>

The Project involves substantial impacts to and interference with tribal sovereign and fishing rights, navigation, shipping, tourism, the regional economy, water quality and quantity issues, wetlands, and climate change. The Project would transport 540,000 barrels of oil and natural gas liquids daily. When burned, the annual atmospheric carbon yielded from this source would exceed 57,000,000 metric tons annually. Such a long-term commitment to fossil fuel transport and combustion is contrary to the State of Michigan's recent policies regarding needed measures to combat climate change⁶ and the incoming Biden Administration's aggressive plans to mitigate greenhouse gas ("GHG") emissions.⁷

The construction would require a massive amount of water and result in significant wastewater discharges during a long period of construction. On-shore construction of the tunnel and facilities would involve removal of tens of millions of gallons of tributary groundwater directly connected to coastal wetlands and the Great Lakes. The tunnel project's use of heavy machinery, bentonite slurry, blasting of bedrock, and large volumes of effluent discharge all would threaten to impact or displace fishing, cultural, and historic resources, such as traditional cemetery or burial sites of the Odawa and Ojibwe Tribes of Michigan.

D. Required Federal and State Tunnel Permits.

The Project and its several related components involve a long list of intertwined federal and state authorizations, approvals, easements, property interests, and permits. As noted at the outset, the instant Application before the Corps requires the following federal permits or approvals:

- (1) Section 10 of the Rivers and Harbors Act and Section 403 of the CWA regarding navigation and the removal and deposit of 364,000 cubic yards of spoils or other materials from the tunnel operation;
- (2) Section 404 of the CWA permit to dredge, fill, and deposit materials from a large area of coastal wetlands;
- (3) Section 402 of the CWA discharge permit for millions of gallons of water under the National Pollutant Discharge Elimination System ("NPDES") system; and
- (4) Section 401 of the CWA permit for state certification of water quality standards.

Army Corps permits are required under Section 10 for structures and/or work in or affecting navigable waters of the United States.⁸ The Corps review of the Project application must include a detailed analysis on how the project will affect public interests.

"The decision whether to authorize a proposal...should reflect the national concern for both protection and utilization of important resources. All factors which may be relevant to the proposal must be considered including the cumulative effects thereof: among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs,

⁶ See Executive Order 2020-182, https://www.michigan.gov/whitmer/0,9309,7-387-90499_90705-540277--,00.html; Executive Directive 2020-10, https://www.michigan.gov/whitmer/0,9309,7-387-90499_90704-540278--,00.html.

⁷ Biden Plan for A Clean Energy Revolution and Environmental Justice, <https://joebiden.com/climate-plan/#>

⁸ 33 CFR 322.3.

safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.”⁹

E. The Project Will Inevitably Result in More Spills as Line 5 Has Operated Well Beyond its Expected Life Span

The tunnel and pipeline are part of the larger North American crude oil pipeline system. Enbridge’s 67-year-old Line 5 pipeline runs 645 miles from Superior, Wisconsin, across Michigan’s Upper Peninsula, across the Straits and down through the Lower Peninsula to Sarnia, Canada. Line 5 crosses 400 streams and runs along or near many lakes, state and federal lands, towns, tribal lands, ancient markers and historical resources. There have been 33 reported spills totalling over 1 million gallons of crude oil in recent years.¹⁰

Enbridge owns and operates other crude oil and natural gas liquid pipelines from Canada, down through Minnesota and Wisconsin, around Chicago, and across southern Michigan to Sarnia, with spur pipelines to Marathon and Toledo. Any decision on the tunnel and tunnel pipeline would commit resources and result in impacts throughout Michigan and the Great Lakes region for another 100 years. The Enbridge pipeline system in the Midwest has caused the three largest inland oil spills in U.S. history.¹¹ Thus, a decision on the tunnel and its pipeline is inseparable from the entire 645-mile line--which for many reasons is an aged, outdated crude oil pipeline no longer necessary in 2020.

III. The Review Under the National Environmental Policy Act

As our “basic national charter” governing environmental protection, NEPA requires all federal agencies to prepare an EIS where (1) the proposed action is a “major Federal action;” and (2) the proposed action “significantly affects the quality of the human environment.”¹² A “major Federal action” includes those “with effects that may be major and which are potentially subject to Federal control and responsibility.”¹³ In addition, private actions involving permitting for construction and management activities may constitute a “major Federal action” subject to EIS requirements.¹⁴

The EIS must describe: “(i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, (iii) alternatives to the proposed action, (iv) the relationship between local short-term uses of man’s environment and the

⁹ 33 CFR 320.4(a)(1).

¹⁰ Garret Ellison, *Enbridge Line 5 has spilled at least 1.1M gallons in past 50 years*, MLive, Jan. 19, 2019 https://www.mlive.com/news/2017/04/enbridge_line_5_spill_history.html

¹¹ Laina G. Stebbins and Dylan Miettinen, *As Enbridge fights for Line 5, Indigenous activists block Line 3 construction in Minnesota*, Michigan Advance, Dec. 7, 2020.

<https://www.michiganadvance.com/2020/12/07/as-enbridge-fights-for-line-5-indigenous-activists-block-line-3-construction-in-minnesota/> “Line 3 spilled 1.7 million gallons of oil in Minnesota in 1991; the same pipeline had spilled 1.3 million gallons in 1973. A rupture in Enbridge’s Line 6B was responsible for spilling 840,000 gallons of crude oil into a tributary of Michigan’s Kalamazoo River in 2010.”

¹² 42 U.S.C. § 4332 (2018).

¹³ 40 C.F.R. § 1508.18 (2018).

¹⁴ *Id.*

maintenance and enhancement of long-term productivity, and (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action.”¹⁵

In performing an Environmental Assessment (“EA”), the Corps must determine whether an EIS is required.¹⁶ To make this threshold determination of whether to conduct an EIS, the lead federal agency first prepares an EA that takes a “hard look” at the proposal, a full range of reasonable alternatives, and the potential environmental impacts of the proposed action.¹⁷ An EA must also inform the public and officials of consequences and alternatives before decisions are made. If the actions or related actions involve “any significant environmental impacts that might result from the action,” the EIS is required before any agency action on the permit application is taken.¹⁸ Where, as here, the environmental effects that may occur are substantial, involve uncertainty, or involve complex scientific and technical issues, the preparation of an EIS is required.¹⁹

A. NEPA’s “Hard Look” Requirements.

Pursuant to NEPA’s “hard look” requirement, the agency must ensure that “the adverse environmental effects of the proposed action are adequately identified and evaluated.”²⁰ In evaluating the significance of a proposed action impact, an agency is to consider, *inter alia*, the effect on “public health or safety;” “[u]nique characteristics of the geographic area such as proximity to historic or cultural resources;” the extent to which the environmental effects “are likely to be highly controversial” or “are highly uncertain or involve unique or unknown risks;” “[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts;” the degree to which the action “may cause loss or destruction of significant . . . cultural[] or historical resources; and the “context” and “intensity” of the proposed action.

An EIS must be prepared if “substantial questions are raised as to whether a project may cause significant degradation.”²¹ “Significantly” has two components: “context” and “intensity.”²² Context refers to the setting (e.g., the Great Lakes) in which the action takes place.²³ Intensity refers to “the severity of the impacts” and involves examining ten factors.²⁴ In considering context and intensity, NEPA requires examination of the following factors, anyone of which can be sufficient to warrant an EIS.

- (a) Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the

¹⁵ 42 U.S.C. § 4332(2)(C) (2018); 40 C.F.R. § 1500.1.

¹⁶ 40 C.F.R. §§ 1501.4(b), 1508.9(a) (2018).

¹⁷ 40 C.F.R. § 1508.9 (2018); *Citizens to Preserve Overton Park*, 401 U.S. 402 (1971) *Sierra Club v. Peterson*, 717 F.2d 1409, 1414 (D.C. Cir. 1983).

¹⁸ *Sierra Club v. Peterson*, 717 F.2d at 1414.

¹⁹ 42 U.S.C. § 4332 (2018).

²⁰ *Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers*, 255 F. Supp. 3d 101 (2017); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989); *Ocean Advocates v. U.S. Army Corps of Engineers*, 402 F.3d 846 (9th Cir. 2005).

²¹ *Id.*; *Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1149 (9th Cir. 1998).

²² 40 C.F.R. § 1508.27 (2018).

²³ 40 C.F.R. § 1508.27(a) (2018).

²⁴ *See id.* § 1508.27(b).

locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

(b) Intensity. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:

(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.

As noted, impacts refer to “potential” or “may,” and where the context and intensity exist, uncertainty demands preparation of an EIS.

The presence of “one of these factors may be sufficient to require preparation of an EIS in appropriate circumstances.”²⁵ In this case, all ten “intensity” considerations are invoked by the proposed project.

The Line 5 proposed tunnel and pipeline could significantly affect drinking water, public health and safety; interfere with the protected treaty tribal fishing rights and potential newly discovered historic and cultural resources. Parklands, prime farmlands, wetlands, and ecologically critical areas potentially would be adversely affected, as would protected species and habitat, and endangered or specially protected species. The Project involves the direct, indirect, and cumulative effects to the human and natural environment, aquatic resources, and water dependent uses. The Project would also directly contribute and increase greenhouse gas emissions for the next century at a time when Great Lakes water levels are at an all time high, increasing the frequency and severity of storm events, causing billions of dollars in damages to infrastructure, contributing to combined sewer overflows, and negatively affecting public and private property, businesses, navigation, and irreparable damage to the Great Lakes ecosystem.²⁶

Finally, the Corps must give a “convincing statement of reasons” to justify not preparing an EIS. For example, in a case involving an extension of harbor facilities for petroleum transport, the Corps was required to prepare an EIS where the extension and the nature of potential consequences, were not previously evaluated by an agency²⁷ as is the proposed tunnel and pipeline under the Great Lakes in the instant matter.

B. The Enbridge’s Proposed Tunnel Activity Constitutes a “Major Federal Action” Significantly Affecting the Quality of the Human Environment.”

Enbridge’s Application for the proposed tunnel and pipeline pursuant to Section 404(b)(1) of the Clean Water Act and Section 10 of the Rivers and Harbors Act constitute a major Federal action that requires compliance with NEPA.²⁸ Both the “context” and “intensity” of the possible effects from Enbridge’s proposed action are particularly relevant. The context here is extraordinary and involves the Great Lakes and its tributaries, which hold 20 percent of the world’s fresh surface water and support the communities, livelihoods, and quality of life of over 40 million people. Further, the Great Lakes are globally unique and subject to both a federal navigational servitude in one of the busiest shipping waterways in North America and the world, and are subject to protection under the common law public trust doctrine that protects

²⁵ *Ocean Advocates v. U.S. Army Corps of Engineers*, 402 F.3d 846 (9th Cir. 2005).

²⁶ The Impacts of Climate Change on the Great Lakes (Environmental Law and Policy Center, 2019) <http://elpc.org/issues/wild-natural-places/great-lakes/>. See also, Michigan Department of Health and Human Services, *Michigan Climate and Health Profile Report 2015*, https://www.michigan.gov/documents/mdhhs/MI_Climate_and_Health_Profile_517517_7.pdf

²⁷ *Ocean Advocates v. U.S. Army Corps of Engineers*, 402 F.3d at 866-868.

²⁸ See, e.g., *Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers*, Civil Action No. 16-1534 (JEB) (March 20, 2020); *Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers*, Civil Action No. 16-1534 (JEB) (July 7, 2020); *Stop The Pipeline v. White*, 233 F. Supp. 2d 957 (S.D. Ohio 2002) (the Corps prepared EIS for individual 404 permit for an 149-mile petroleum pipeline); *Hammond v. Kempthorne*, 448 F. Supp. 2d 114 (D.D.C. 2006) (BLM prepared EIS for the Williams oil pipeline project); *Spiller v. Walker*, No. A-98-CA-255-SS, 2002 WL 1609722 (W.D. Tex. July 19, 2002), aff’d sub nom. *Spiller v. White*, 352 F.3d 235 (5th Cir. 2003) (Corps’ permitting of an oil pipeline was a major federal action); *Wilderness Soc’y v. Morton*, 479 F.2d 842 (D.C. Cir. 1973) (DOI prepared EIS for trans-Alaska oil pipeline requiring rights-of-way and special land use permits over federal land).

“paramount” public uses for navigation, fishing, boating, drinking water, swimming, and recreation.²⁹ In addition, the Great Lakes are deemed a “high consequence area” (“HCA”) under the 2016 PIPES Act,³⁰ in part based on the Straits of Mackinac being “the worst possible place” for an oil spill in the Great Lakes according to a 2014 University of Michigan study.³¹

The unprecedented nature of this Application cannot be overstated. This proposed tunnel corridor is one of a handful of large, highly complex lined tunnels that test technological and engineering boundaries; they involve layers of geotechnical studies and require the highest degree of scientific, technical and engineering analysis, modeling, and design specifications. Enbridge’s Application is devoid of crucial geotechnical studies and data that would illuminate the risks that are associated with constructing a deep tunnel of this magnitude in this globally unique underwater location.

The Application itself further underscores the uncertainty and risks associated with constructing and operating a tunnel and oil pipeline for 99 years. Exhibit 11A, for example, shows a valley or vortex at the bottom of the Straits of mixed or unconsolidated materials. This question alone requires additional information and technical analyses, requiring a full EIS under NEPA.

C. Inadequate and Concerning Geotechnical Information.

Experts in geotechnical engineering and tunneling³² have reviewed all existing information and technical reports and have concluded that the proposed project’s geotechnical work completed thus far on behalf of Enbridge is inadequate and raises serious concern regarding the feasibility, integrity, and planning for the construction of the tunnel. Among the identified concerns is that the Geotechnical Data Report (“GDR”) reveals that Enbridge completed only 20 borings over the 19,000 feet of open water, roughly one boring for every 950 feet. The recommended spacing for the adverse conditions (identified in the GDR) is 100 to 200 feet for hard rock tunnels and 50 to 100 feet for mixed face tunnels. The closest borings completed were spaced more than 300 feet apart and the maximum spacing between borings approached 1,800 feet or 9 times (900 percent) farther than recommended. Based on the borehole identification numbers provided in the GDR and obvious spacing gaps between some borings, it is clear that Enbridge planned to complete eight additional open water borings. The GDR does not discuss why these borings were not completed.

²⁹ *Illinois Central R Rd v. Illinois*, 146 U.S. 287 (1892); *Obrecht v. National Gypsum Co.*, 361 Mich 399 (1961).

³⁰ 49 U.S.C. § 60109 (2018).

³¹ David J. Schwab, *Straits of Mackinac Contaminant Release Scenarios: Flow Visualization and Tracer Simulations*, University of Michigan Water Center, Spring 2014
<http://graham.umich.edu/media/files/mackinac-report.pdf>.

³² Brian O’Mara has over 30 years of professional consulting experience in geo-environmental engineering and construction which includes deep experience with tunneling, geology, and hydrogeology on behalf of oil and gas companies but also public sector clients such as the Michigan DEQ, USEPA, and other regional, county and municipal clients. Mike Wilczynski, Certified Professional Geologist, Pangea Environmental, LLC, has over 40 years of geological and environmental experience. He has a BS and MS degree in Geology and post graduate course work in hydrogeology. Mr Wilczynski spent most of his geological career in the oil and mining industries and worked in over a dozen states, Canada and South America. He also spent twelve years as a Senior Geologist for the former Michigan Department of Environmental Quality Remediation and Redevelopment Division and taught geology as an adjunct professor at a community college. After retiring from the DEQ and teaching he started Pangea Environmental, LLC to provide expert consulting services for complicated geological problems.

Analysis of the rock coring logs and the rock core photographs reveal extremely poor rock quality. The bedrock is described as “fractured” more than 700 times and “extremely fractured” 366 times in the GDR. The bedrock is described as “extremely weathered” or “highly weathered” more than 200 times in the GDR. Based upon the Rock Classification Systems for Engineering Purposes, (ASTM STP984-EB984) more than 75 percent of the rock cores collected beneath the Straits have “Very Poor” or “Poor” rock quality. Approximately 120 of the recorded values (more than 25 percent) were Zero, the absolute worst quality. The “Very Poor” to “Poor” Rock Quality Designation (“RQD”) values were not limited to the uppermost bedrock which is often the case. Many of these low values were observed to persist for many tens or hundreds of feet and in some cases persisted to the end of the boring. Rock quality should improve with depth, but this is often not the case in the rock cores collected. Per the ASTM STP984 guidance, “...low RQD values should be considered a “red flag” for further action.” These data directly contradict Enbridge’s assertion that the tunnel will be bored through solid bedrock.

Pore rock quality and the likelihood of karst regions in the area formed from the dissolution of soluble rocks such as limestone, dolomite, have not been assessed adequately as part of the project planning and design. Because Enbridge’s characterization of subsurface geology is demonstrably inadequate, other risks cannot be adequately determined. For example, Enbridge indicates that a bentonite slurry will be *injected at high pressure into the front chamber of the TBM to balance earth and water pressures.* Over-pressurization of the bentonite slurry can lead to a “blow-out” or “frac out” condition where the slurry is displaced well beyond the immediate vicinity of the TBM and can breach through the bedrock and overlying sediments.³³

Other concerns include the determination that there was methane dissolved in groundwater which will “de-gas” when the water enters the much lower atmospheric pressure of the tunnel, shaft and portal and if the methane concentration in air is between 5 and 15 percent, the Lower Explosive Limit (“LEL”) and the Upper Explosive Limit (“UEL”), respectively, it can lead to deadly and destructive explosions. The Dynamic Risk Report, upon which Enbridge and the state agencies rely, assumed there would be no methane present during construction and there were no provisions to address methane in their risk assessment. It should be noted that there was a deadly methane explosion which killed 22 men that were constructing the Port Huron water intake tunnel which extended some 5 miles beneath the lakebed of Lake Huron within similar bedrock formations.

Finally, the construction of the proposed Project would take place directly subjacent to the western arm of Line 5 on the bottomlands of the Straits of Mackinac. Given the inadequate characterization of the subsurface geology as well as the known rock quality, the construction of the tunnel immediately below an active pipeline presents a clear and present danger to public health and safety and the environment. The continued operation of Line 5 transporting oil and natural gas liquids while construction is underway should be considered an imminent and unacceptable hazard in and of itself.

D. The Corps Must Evaluate Alternatives.

³³ Brian O’Mara, comments submitted to EGLE, October 19, 2020.

The EIS must also inform federal agency decision-makers and the public of the “reasonable alternatives” that would “avoid or minimize adverse impacts or enhance the quality of the human environment.”³⁴ This alternatives analysis is the “heart” of the EIS—the agency should “present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options.”³⁵ The EIS must “[r]igorously explore and objectively evaluate all reasonable alternatives,” including the alternative of “no action.”³⁶ The alternatives analysis is particularly important in the CWA Section 404 context because the Corps must ensure that there are no less environmentally damaging practicable alternatives that exist.³⁷ The discussion of the range of alternatives to a proposed action must be “reasonable,”³⁸ and it must not be unduly narrowed by limiting the project to the purpose stated in the application.³⁹ Typically, the EIS or assessment must evaluate a full range of reasonably possible alternatives to accomplish the basic purpose of the project under review⁴⁰ – that is, a detailed disclosure of alternative ways or methods that would avoid or reduce impact and accomplish the goal or purpose.⁴¹ However, in doing so, the government body must conduct a thorough evaluation and provide detailed reasons for its conclusions.⁴²

The consideration of alternatives and their comparative impacts must be in response to the basic “underlying purpose”⁴³ of the action proposed, and not simply the stated action in the application.⁴⁴ An agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency’s power would accomplish the goals of the agency’s action, and the EIS would become a foreordained formality.⁴⁵ Moreover, the approach to the alternative requirement cannot be drawn too narrowly where it would result in the impacts

³⁴ 40 C.F.R. § 1502.1.

³⁵ *Id.* § 1502.14.

³⁶ *Id.* §§ 1502.14(a), (d).

³⁷ *Id.* § 230.10(a).

³⁸ 42 U.S.C. § 4332(2)(c)(iii) (2018).

³⁹ *Sierra Club v. Coleman*, 421 F. Supp. 63 (D.D.C. 1976).

⁴⁰ E.g., Council of Environmental Quality rules on NEPA impact and alternative studies and statements. 40 C.F.R. § 1501 (2018).

⁴¹ *Id.* NEPA EIS, Alternatives requirement; 42 U.S.C. § 4332(C)(3) (2018) (“The purpose of an EIS is a “full and fair discussion [to] inform decision makers of environmental impacts... and reasonable alternatives which would avoid or minimize adverse impacts.”); 40 C.F.R. § 1502.1; *Stewart Park & Reserve Coal Inc. v. Slater*, 352 F.3d 545, 557 (2d Cir. 2003).

⁴² *Sierra Club v. Coleman*, (“The purpose of an EIS is a “full and fair discussion [to] inform decision makers of environmental impacts... and reasonable alternatives which would avoid or minimize adverse impacts.”); 40 C.F.R. § 1502.1; *Stewart Park & Reserve Coal. Inc. v. Slater*, 352 F.3d 545, 557 (2d Cir. 2003).

⁴³ 40 C.F.R. § 1502.13 (2018).

⁴⁴ *Id.*

⁴⁵ *City of New York v. Dept. of Transp.*, 715 F.2d 732, 743 (2d Cir. 1983).

or significant risks that are to be disclosed or avoided.⁴⁶ In sum, an agency is forbidden to limit the range of reasonably possible alternatives.

Further, where there is a relationship between new risk and safety concerns, the alternative analysis to an existing action or proposed action must treat the proposed action as new, and not previously authorized. An alternative analysis and related potential environmental impacts cannot be limited to an already authorized project or conduct, where new and additional circumstances, changes, and safety concerns have occurred or become known after the authorized project.⁴⁷

FLOW and other groups have on numerous occasions submitted technical reports and comments regarding the existence of feasible and prudent alternatives that would avoid the severe threat of catastrophic harm and imminent risks to Lake Huron and Lake Michigan and shoreline communities, property owners, as well as the many protected public trust uses and tribal fishing in these waters.⁴⁸ This body of evidence points to the fact that there are feasible, practical, safer, and affordable alternatives to building and operating a private oil tunnel and pipeline in the heart of the largest and most valuable fresh surface water system on the planet.

For example, Enbridge has doubled the design capacity of Line 6B (renamed by Enbridge as Line 78) with a 36-inch diameter pipeline to Stockbridge; there the line forks, with a 30-inch line to Sarnia and another equally large pipeline to Detroit and Toledo. And practical solutions exist for continued service of propane to the U.S., and transport of smaller volumes of crude oil out of northern Michigan.

Enbridge's claim that the proposed tunnel for Line 5 pipeline is "the solution" to the dangers and risks of major catastrophe inherent in its failing reconfiguration of the existing 67-year-old Line 5 pipeline on the lakebed of the Straits ignores several key facts and alternatives:

1) Line 5 is Not Vital to Michigan's Energy Infrastructure.

⁴⁶ 40 C.F.R. § 1502.14 ("[A]gencies shall: (a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated. (b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits. (c) Include reasonable alternatives not within the jurisdiction of the lead agency.") This is similar to Michigan wetlands law, which discourages alternative analysis that draws the purpose or conduct in question so narrowly as to preclude consideration of alternatives that would eliminate or significantly reduce the loss of wetlands or natural resources that are threatened. MCL 303011(b)(4); R281. EGLE Wetland Protection Act rules prohibit "unduly narrowing" the basic project purpose to avoid considering alternatives, as did the respondent in this case. Applicant cannot narrow the purpose and must prove it has considered and established least damaging or wetland loss alternatives are not feasible and prudent. R281.922a(4)).

⁴⁷ *Northern Plains Resource Council Inc. v. Surface Transp. Bd.*, 668 F. 3d 1067, 1099 (9th Cir. 2011) (holding a board's decision to limit impact analysis to authorized railroad location or route was arbitrary and capricious).

⁴⁸ See FLOW, *Eliminating the Line 5 Oil Pipelines' Unacceptable Risk to the Great Lakes through a Comprehensive Alternatives Analysis and Systems Approach*, Dec. 14, 2015, <http://flowforwater.org/wp-content/uploads/2015/12/FLOW-Composite-Report-12-14-15-FINAL-1.pdf>.

Over the last five years, a number of independent reports have made clear that Line 5 is no longer essential energy infrastructure for Michigan with viable alternatives to meet the U.P.’s propane needs⁴⁹ and lower northern Michigan’s crude oil transport needs.⁵⁰ A 2015 expert report, for example, shows only 5-10 percent of the oil in Line 5 is used in Michigan and that decommissioning the 67-year-old oil pipelines to prevent a catastrophic spill in the Mackinac Straits would not disrupt Michigan’s or the Midwest’s crude oil and propane supply. Contrary to Enbridge’s claims, 500,000 bbl of the 540,000 bbl shipped in Line 5 are refined in Sarnia, Canada. Marathon in Detroit and Toledo refineries have access to 50,000 bbls/day of light crude oil from fields in Ohio and Pennsylvania, and from other pipelines from the south.⁵¹ In sum, as a practical matter, the transport of crude oil carried by Line 5 to Canada, Detroit, and Toledo can be handled, with some minor or reasonable adjustments, by Line 6B.

2) Alternatives Exist to Supply Michigan’s Propane and Crude Oil Needs.

The 2017 Dynamic Risk Draft Alternatives Analysis dispelled Enbridge’s claims about Michigan’s dependency on Line 5 in unambiguous terms: “The majority of Line 5 throughput is delivered to the Sarnia, Ontario terminal in Canada where it is then transported to refineries across eastern Canada and the U.S. . . . Of the NGLs transported on Line 5, less than 5% are delivered into Rapid River [in the Upper Peninsula]. Lewiston oil injections are also less than 5% of Line 5 current throughput and do not appear to be increasing.” Draft Report at 4-4 and 4-5. In other words, the Michigan portion of Line 5 is largely a thoroughfare for the transportation of product to the benefit of commercial, government, and consumer interests elsewhere, including, of course, to the benefit of Enbridge and its shareholders.

The following year in 2018, an independent expert report from London Economics International, LLC (“LEI”)⁵² confirmed the state’s finding: that if the Line 5 pipeline in the Straits of Mackinac is decommissioned, truck and rail can replace the supply of propane to the Upper Peninsula with an estimated consumer cost increase of approximately 5 cents per gallon, which would be lost in the normal fluctuation of propane prices. The lowest-cost alternative options to Enbridge Line 5 would be truck or rail from Superior, Wisconsin. The Attorney General’s April 6, 2020 letter to the U.P. Energy Task Force outlines propane alternatives and legislation to address the energy needs of residents in the Upper Peninsula.

3) The Corps Should Take into Account Future Market Trends Reducing the Need for Pipeline Infrastructure Investment.

⁴⁹ London Economics International. Assessment of Alternative Methods of Supplying Propane to Michigan in the Absence of Line 5. (July 27, 2018). http://blog.nwf.org/wp-content/blogs.dir/11/files/2018/07/LEI-Enbridge-Line-5-Michigan-Propane_7_27_2018.pdf; See also FLOW’s propane study (Summer 2017) <http://flowforwater.org/wpcontent/uploads/2017/06/JR022-PROPANE-20170606.pdf>.

⁵⁰ London Economics International. Michigan Crude Oil Production Alternatives to Enbridge Line 5 for Transportation (Aug. 23, 2018) http://blog.nwf.org/wp-content/blogs.dir/11/files/2018/09/LEI-Enbridge-Line-5-Michigan-Oil-Production-8_23_2018.pdf.

⁵¹ *Id.*

⁵² London Economics International. Assessment of Alternative Methods of Supplying Propane to Michigan in the Absence of Line 5. (July 27, 2018). http://blog.nwf.org/wp-content/blogs.dir/11/files/2018/07/LEI-Enbridge-Line-5-Michigan-Propane_7_27_2018.pdf; See also FLOW’s propane study (Summer 2017). <http://flowforwater.org/wpcontent/uploads/2017/06/JR022-PROPANE-20170606.pdf>.

Long-term market trends and recent events strongly suggest the need for fossil fuel-related infrastructure is decreasing significantly. Petroleum industry economists are warning that peak oil demand is near or may have already arrived. BP's (British Petroleum) chief economist recently explained why BP will undertake a fundamental restructuring of its business model to invest in zero-carbon energy sources.

“The advent of electric vehicles and the growing pressures to decarbonise the transportation sector means that oil is facing significant competition for the first time within its core source of demand. This has led to considerable focus within the industry and amongst commentators on the prospects for peak oil demand – the recognition that the combined forces of improving efficiency and building pressure to reduce carbon emissions and improve urban air quality is likely to cause oil demand to stop increasing after over 150 years of almost uninterrupted growth.”⁵³

The energy sector has lost hundreds of billions in market value and future production will be reduced as the number of active oil rigs have plummeted.⁵⁴ The Wall Street Journal reported that the oil development industry lost \$280 billion between 2007 and 2018.⁵⁵ Since 2015, more than 200 North American oil and gas producers have filed for bankruptcy protection, leaving \$130 billion in debt. Oil and gas bankruptcies have accelerated in 2020, which now include oil giant Chesapeake Energy Corporation.⁵⁶

Other market indicators suggest that investment in new pipeline infrastructure is highly questionable in light of clear trends indicating a precipitous drop in oil consumption in future years.

- Analysis released August 9th by world's 8th largest bank, BNP Paribas reports “that the economics of oil for gasoline and diesel vehicles versus wind-and solar-powered electric vehicles (EVs) are now in relentless and irreversible decline, with far-reaching implications for both policymakers and the oil majors.”⁵⁷
- Seventeen major tar sands projects have been cancelled in the last several years. Seven international oil companies – ExxonMobil, ConocoPhillips, Statoil, Koch Industries, Marathon, Imperial Oil and Royal Dutch Shell – have divested their interests in Alberta tar sands and will not need Enbridge's future pipeline services.⁵⁸ The conveyance of tar sand oils represents a large increment of Enbridge's ongoing carrying capacity and a major revenue source.

⁵³ BP, Peak oil demand and long-run prices, <https://www.bp.com/en/global/corporate/energy-economics/spencer-dale-group-chief-economist/peak-oil-demand-and-long-run-oil-prices.html>

⁵⁴ Business Insider, *The battered \$700 billion US energy industry is now worth roughly half of Microsoft amid oil's record plunge*, April 21, 2020. <https://markets.businessinsider.com/commodities/news/us-energy-industry-worth-half-microsoft-oil-price-crash-record-2020-4-1029113811#>

⁵⁵ Bradley Olson and Lynn Cook, *Wall Street Tells Frackers to Stop Counting Barrels, Start Making Profits*, Wall Street Journal, December 13, 2017. <https://www.wsj.com/articles/wall-streets-fracking-frenzy-runs-dry-as-profits-fail-to-materialize-1512577420>

⁵⁶ David Wethe, *Chesapeake joins more than 200 other bankrupt U.S. shale producers*, World Oil, June 29, 2020. <https://www.worldoil.com/news/2020/6/29/chesapeake-joins-more-than-200-other-bankrupt-us-shale-producers>

⁵⁷ Mark Lewis, *Wells, Wires and Wheels*, PNB Paribas, August 2019. <https://docfinder.bnpparibas-am.com/api/files/1094E5B9-2FAA-47A3-805D-EF65EAD09A7F>

⁵⁸ Bobby Magill, *This could be the end of Canadian tar sands*, Grist, January 12, 2017. <https://grist.org/article/this-could-be-the-end-of-canadian-tar-sands/>

- The International Energy Agency (“IEA”) projects Global EV Outlook 2020 that adoption of EVs will result in reduced oil demand of 2.5 – 4.2 million barrels per day by 2030.⁵⁹
- The world’s major auto manufacturers are transitioning away from gas and diesel-powered vehicles. General Motors, Ford, Toyota, VW, Volvo, and others are making clear that petroleum-free electric drivetrains will dominate their future manufacturing investments and that future product offerings will not use transportation fuels.
- 18 countries, including England, France, Israel, Norway, Netherlands, Slovenia, India, Egypt, and China have announced their intention to ban future sales and, in some cases, the use of vehicles with internal combustion engines. Twenty-five cities and metropolitan areas intend to prohibit the use of gas and diesel-powered vehicles.⁶⁰

It should also be noted 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 just announced an updated fossil fuel policy which commits to cutting both insurance and investment support for companies significantly involved in tar sands or oil shale.⁶¹ Global leader AXA indicated that it is “phasing out of insurance coverage for new coal construction projects and oil sands businesses.”⁶²

In addition, in response to reduced global oil demand, in part attributable to the SARS-CoV-2 crises, Enbridge has begun to use excess pipeline capacity to store excess crude oil.⁶³

Available market-based data and information cast serious doubt that there is a future public or private need for the tunnel and strongly suggest that the need for petroleum products is waning. The Corps is obligated to take into account the strong market trends indicating that “peak oil” is imminent or has already occurred reducing the need for petroleum fuels and that the transition to zero-carbon energy generation resources and electrified transportation is inevitable.

4) There Is No Showing that Line 5 Proposed Tunnel and Pipeline Is In the Public Interest.

Determining that the Project is in the public interest requires weighing its benefits against its costs.⁶⁴ Here, Enbridge has failed to provide the Corps with the information it needs to make that determination. Based on this record, the Corps cannot find that the Project is in the public interest, particularly given that the Project is not needed, is not responding to actual demand for oil, would have extremely significant

⁵⁹ IEA, Global EV Outlook 2020, <https://www.iea.org/reports/global-ev-outlook-2020>

⁶⁰ Center for Climate Protection, Survey of Global Activity to Phase Out Internal Combustion Engine Vehicles, September 2018. <https://theclimatecenter.org/wp-content/uploads/2018/09/Survey-on-Global-Activities-to-Phase-Out-ICE-Vehicles-FINAL.pdf>

⁶¹ Myriam Fallon, *Zurich Insurance Group Becomes First Primary Insurer to Commit to Not Underwriting Tar Sands Companies*, Insure Our Future, June 25, 2019. <https://www.insureourfuture.us/updates/2019/6/25/zurich-insurance-group-becomes-first-primary-insurer-to-commit-to-not-underwriting-tar-sands-companies>

⁶² *AXA accelerates its commitment to fight climate change*, AXA, December 12, 2017.

<https://www.axa.com/en/press/press-releases/axa-accelerates-its-commitment-to-fight-climate-change>

⁶³ Thomson Reuters, *Enbridge makes deal to store oil in Mainline pipeline as oil glut grows*, CBC, May 4, 2020. <https://www.cbc.ca/news/canada/calgary/enbridge-mainline-1.5555509>

⁶⁴ *Nat’l Parks Conservation Ass’n v. Semonite*, 311 F. Supp. 3d 350, 377 (D.D.C. 2018).

climate change impacts, puts Michigan's 400 waterways at risk from construction and oil spills, and would negatively affect sovereign tribal treaty rights.

5) A Corps Must Evaluate a “No Action” Alternative.

The Corps cannot “blindly accept” Enbridge’s representations regarding the public need for the Project, particularly in light of the *Notice of Revocation and Termination of Easement*⁶⁵ issued by Michigan Governor Gretchen Whitmer and Michigan DNR Director Dan Eichinger. The Executive action, supported by the Michigan Attorney General, strongly suggests that an evaluation by the Corps of a “No Action” alternative is imperative.⁶⁶ Moreover, the available alternatives enumerated above further compel a “No Action” alternative by demonstrating that Line 5 is not vital energy infrastructure for Michigan, that alternatives exist to supply Michigan’s propane and crude oil needs, that future market trends reduce the need for pipeline infrastructure investments, and that this Project is not in the public interest.

E. Enbridge Will Continue to Use the 67-Year-Old Pipeline Despite its Continued Use Already Exceeds its Service Life.

In addition, the approval of the tunnel based on agreements with the State of Michigan includes a commitment for the continued use of the existing 67-year-old Line 5 pipeline from Superior, Wisconsin to Sarnia, Canada. Based on the December 2018 tunnel agreement between the MSCA and Enbridge, the approval of the tunnel would also involve the potential use of the tunnel corridor by electrical, natural gas, or other utilities. However, despite Enbridge’s efforts to advertise this project as a public utility corridor, no utility partner has yet to come to the table given the associated safety, economic, and technical risks. American Transmission Company has indicated that use of the proposed tunnel for high-voltage transmission lines may be unsafe.⁶⁷

The impacts of this Project are also highly controversial, uncertain, and involve unique and extraordinary risks as demonstrated by the number of intervening environmental organizations and tribes in the MPSC pipeline contested case proceeding. Significant evidence was introduced in this MPSC contested case that demonstrates a lack of demand for the Line 5 pipeline replacement and the existence of less costly and environmentally damaging alternatives.

The Applicant’s track record of 33 recorded spills along the length of the existing Line 5 and the failure to disclose critical information on the condition of the existing Line 5 in the Straits raise serious questions about the risk of Enbridge constructing one of the the largest deep waterway tunnels in the nation’s history. The likelihood or potential for serious and devastating impacts to the Great Lakes, citizens,

⁶⁵ https://content.govdelivery.com/attachments/MIEOG/2020/11/13/file_attachments/1600920/Notice%20of%20%20Revocation%20and%20Termination%20of%20%20Easement%20%2811.13.20%29.pdf

⁶⁶ *Nat’l Parks Conservation Ass’n*, 311 F. Supp. 3d at 377; see also *Sierra Club v. Van Antwerp*, 709 F. Supp. 2d at 1265–68 (finding that the Corps failed to independently evaluate the practicability of the alternatives).

⁶⁷ Tom Finco, ATC’s vice president of external affairs is quoted as stating, “ATC does not believe that installing high-voltage electric lines in close proximity to high-pressure oil or gas lines is a good idea,” Paul Egan, *Official: Encasing oil and electric lines in Mackinac straits tunnel a bad idea*, Free Press, May 2, 2019 <https://www.freep.com/story/news/local/michigan/2019/05/02/enbridge-line-oil-electric-tunnel-dangerous/3649545002/>

communities, paramount tribal and public trust fishing rights, boating, recreation, drinking water, and public and private property call for a full EIS in compliance with NEPA.

F. Socioeconomic Impact of Proposed Tunnel and Pipeline.

An independent analysis of the socioeconomic impacts of a proposed Line 5 tunnel through the Straits of Mackinac detailed significant negative potential socioeconomic impacts that must be taken into consideration under NEPA. A study conducted for the State of Michigan determined that impacts of a Line 5 tunnel project would focus on the Michigan counties of Emmet, Cheboygan and Mackinac, which are “particularly sensitive to community resource impacts because their economies are dependent on seasonal tourism.”⁶⁸ These areas have a large rental housing market from seasonal tourism demand and seasonal workers that would be significantly impacted by a massive two plus year tunnel construction project. As the report states “...the tourism sector (businesses, tourists, season workers), and community resources (policing, medical) could be stretched beyond their limits and negatively impacted.” Moreover, machinery and equipment operation would affect local road and highway infrastructure in a relatively densely populated area. Tunneling operations require the extraction and trucking of large amounts of rock and soil; dust and noise would impact community residents and visitors. The influx of temporary workers for the tunnel project would stress community resources and demand increases for police and for health and medical services. A large number of people would be exposed to construction dust, noise, and competition for medical and health services. Construction crews stationed in the Straits area would compete with seasonal workers and visitors to an area heavily dependent on the tourism economy, which generates 5,330 direct jobs in tourism with an annual payroll of \$153 million. In Mackinac County, 29 percent of the labor force is employed in tourism related services with Emmet and Cheboygan counties the tourism-related labor force consists of 15.3% and 17%, respectively, of total employment.

Tourism accounts for \$700 million annually in spending in the three counties that would be directly impacted by the proposed tunnel project and the cumulative negative impacts of noise, dust, traffic congestion, public safety and increased demand for health services and competition for housing. Moreover, more than 17 percent of Mackinac County’s residents are Native American as is 3.7 percent of Emmet County residents and 3 percent of Cheboygan County residents. Many of those residents are employed and depend on commercial and subsistence fishing in the Straits area. The tribal commercial harvest in 2016 was 2.8 million pounds and subsistence fish harvest was 141,262 pounds. The tunnel project would impact water quality and create other disturbances to adjacent water resources of local tribes, which are 1836 Treaty-ceded waters.

G. Inadequate Information about Worst-Case Scenarios, Leak Detection System, and Safety Precautions to Mitigate Human and Mechanical Errors.

Enbridge provides no information about worst-case scenarios (“WCS”) or any leak detection system within the tunnel other than mentioning the following: “The tunnel will be constructed with a structural lining, providing secondary containment to prevent any leakage of fluids from Line 5 or utilities into the lakebed or the Straits.” This complete lack of information is frankly inexcusable since Enbridge is an

⁶⁸ *Dynamic Risk Alternatives Analysis for the Straits Pipelines*, State of Michigan, Oct. 26, 2017.

owner of Dakota Access and this issue of leak detection systems and WCS has been at the heart of that EIS litigation involving the Corps. In addition, Enbridge’s application is notably silent about inevitable human and mechanical errors, accidents, and delays that will occur with the TBM, slurry treatment plant, and ancillary plant and equipment at these deep geological depths. In fact, Enbridge recently had a mechanical error and violation incident during its geotechnical boring studies for this tunnel project and then waited two months before notifying the Department of Environment, Great Lakes and Energy (“EGLE”) that a 40-foot drilling rod broke off and could not be retrieved from the lakebed floor.⁶⁹ In a comparable sized tunnel construction project known as the Lake Mead Intake Tunnel, a worker was killed and another was injured, triggering an OSHA investigation.⁷⁰

Tunnel drilling errors or operating vessels during construction also could threaten the existing Line 5 operations and result in an oil pipeline spill in the Great Lakes. According to a Michigan State University commissioned study, Michigan’s economy could suffer an estimated \$6 billion blow from a Line 5 oil spill, reducing tourism, damaging aquatic and terrestrial wildlife and natural resources, and negatively affecting coastal property values, commercial fishing, and municipal water systems.⁷¹

H. Locking Michigan Into A 99-Year Fossil Fuel Infrastructure Project Has Significant Cumulative Climate Change Impacts and Risks.

The cumulative effects⁷² of the atmospheric loading of carbon associated with the proposed extended operational lifetime of Line 5 enabled by the tunnel is readily quantifiable. The annual emissions attributable to the oil and natural gas liquids exceed 57 million metric tons, a loading of atmospheric carbon that is greater than the annual yield from the combined operation on the nation’s three largest coal plants.⁷³ Under the new NEPA Final Rule, environmental effects must be “reasonably foreseeable and have a reasonably close causal relationship to the proposed action, including those effects that occur at the same time and place as the proposed action or alternatives and may include effects that are later in time or

⁶⁹ "We count on these types of industries to self-report — we don't have staff and equipment to go out and examine with an ROV (remote-operated vehicle) — we don't have an ROV," said Joseph Haas, EGLE's Water Resources Division district supervisor in Gaylord. Keith Matheny, *State 'disconcerted' by Enbridge's disclosures about broken rod left in Straits of Mackinac*, Free Press, Jan. 23, 2020. <https://www.freep.com/story/news/local/michigan/2020/01/22/broken-boring-pipe-straits-mackinac-bottom-longer-enbridge/4543466002/>

⁷⁰ Henry Brean, *Worker killed, another injured at Lake Mead third intake construction site*, Las Vegas Review Journal, June 11, 2012. <https://www.reviewjournal.com/local/local-las-vegas/worker-killed-another-injured-at-lake-mead-third-intake-construction-site/>

⁷¹ Richardson, Robert and Nathan Brugnone, *Oil Spill Economics: Estimates of the Economic Damages of an Oil Spill in the Straits of Mackinac in Michigan*, May 2018. http://flowforwater.org/wp-content/uploads/2018/05/FLOW_Report_Line-5_Final-release-1.pdf.

⁷² “Cumulative impact” is currently defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” See 40 CFR § 1508.7

⁷³ The carbon emissions of top 3 coal plants in United States (metric tons)

James H. Miller	20,965,151
Monroe Power Plant	16,599,356
Colstrip Steam Electric Station	15,617,378
TOTAL	53,181,885

farther removed in distance from the proposed action or alternatives.”⁷⁴ The EIS must take into account not only the loading of greenhouse gases attributable to the proposed project, but also the fact that continued long-term operation of the project is inconsistent with state, federal, and international climate goals and commitments.⁷⁵

Given accelerating trends in fossil fuel divestment, finance and asset management, and the electrification of transportation, the State of Michigan’s investment in fossil fuel infrastructure on this scale is a risky proposition and completely at odds with the urgent and universally recognized need to reduce GHG emissions. The current energy shift towards renewables underscores the high risk associated with investing in multi-billion fossil fuel infrastructure assets like a new Line 5 pipeline tunnel under the Great Lakes. In fact, even the world’s leading oil producers are abandoning the petroleum investments that drive Enbridge’s Canadian oil transport roadmap into North America and the Great Lakes.

Climate change has also increased actuarial uncertainties. The increasing frequency and severity of storm events necessitates recalibration of analytical models predicting impacts and losses. Insurance industry regulators are imposing more rigorous disclosure requirements and improved assessment and management of investment portfolios to mitigate risk. At this time in history, governments, businesses, and citizens together must pivot and focus on solving complex systemic anthropogenic climate change impacts, rather than further contributing to it. Accordingly, the Corps’ environmental review of impacts cannot be limited to the impacts of the tunnel/pipeline segment in the Straits of Mackinac alone; rather the Corps’ review gives rise to a federal obligation to analyze the GHG emissions and impacts of the pipeline as a whole.

I. The Project Threatens to Violate Federal, State, and Local Laws.

In this case, boring an unprecedented tunnel through the bedrock and soils of the Great Lakes threatens to violate a host of federal, state, or local law or requirements imposed for the protection of the environment, including but not limited to, the GLSLA, the Michigan Environmental Protection Act (“MEPA”) public trust law, Michigan’s Constitution,⁷⁶ Michigan Water Quality Standards, and the Endangered Species Act (“ESA”).⁷⁷ As a threshold matter, Enbridge lacks legal authorization to construct and operate this proposed tunnel and pipeline because the 2017 and 2018 agreements coupled with the Act 359 legislation to authorize such construction of a private tunnel through public trust bottomlands violate public trust law (GLSLA and MEPA) and the Michigan Constitution (Art. 4 Sec. 52). As public trustee, the State of

⁷⁴ 85 FR 43375.

⁷⁵ “The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct.” *Ctr. for Biological Diversity v. NHTSA*, 508 F.3d 508, 550 (9th Cir. 2007)); *Mid States Coal. for Progress v. Surface Trans. Bd.*, 345 F.3d 520 (8th Cir. 2003); *Border Power Plant Working Grp. v. DOE*, 260 F. Supp 2d 997 (S.D. Cal. 2003). The courts also underscore the need to analyze climate change when the proposed action is regional or national in scope, which is clearly the case for the proposed project since it extends from Canada through several U.S. states in the Great Lakes region.

⁷⁶ MI. CONST. ART. 4, §52 “The legislature shall provide for the protection of the air, water, and other natural resources of the state from pollution, impairment and destruction.”

⁷⁷ See FLOW Public Comments on Public Act 359 and Line 5 Agreements (December 18, 2018) for a lengthy legal analysis of the invalid agreements and unconstitutional legislation authorizing Enbridge’s proposed tunnel and pipeline scheme. <https://forloveofwater.org/wp-content/uploads/2020/04/FLOW-Public-Comment-12-18-18.pdf>

Michigan has a “high, solemn and perpetual duty”⁷⁸ to protect the paramount interests of the navigable waterways and bottomlands of the Great Lakes for the benefit of its citizens. This includes the proposed location of the tunnel and pipeline project under the Straits of Mackinac. In other words, the very tunnel agreements and legislation Enbridge relies on to make this joint application are defective.⁷⁹ Thus, an EIS is required to evaluate these and other applicable federal and state laws.

J. Potential Adverse and Unprecedented Impacts on State and Taxpayer Liability

While Enbridge has agreed to pay for tunnel construction, the tunnel itself would be turned over to a state agency and would be owned by the state. That means Michigan’s taxpayers could be on the hook for any tunnel collapse or other significant liability problems, or in the event that Enbridge decides to abandon Line 5 as oil and other fossil fuel use decline over the next 99 years. In other words, appropriate indemnification and hold harmless provisions ultimately will not shield state agencies from any damages not covered by Enbridge’s insurers. To date, the State of Michigan has allocated \$4.5 million of taxpayers funds towards the planning, oversight, and legal services of the proposed Mackinac Straits tunnel project all thanks to Governor Snyder’s 11th hour supplemental appropriations budget in December 2018. This use of taxpayer monies to shoulder Enbridge’s costs violated Article 5.2 of the tunnel agreement, which states: “Nothing in this Agreement will be deemed to obligate the expenditure of State Funds.” The 2018 Snyder-Enbridge agreements then further appear to exempt Enbridge from any taxes under the Straits of Mackinac for the next 99 years.⁸⁰

K. The Construction of the Project Cannot Authorize Continued Operation of Line 5.

The attempt to secure permits and authorizations for the Project could take years and if all authorizations were ultimately issued, the construction of the Project would take additional years to complete. The cumulative risks presented by the operation of the Line 5 pipelines are unacceptable and are now of record. In addition to at least two recent anchor strikes to the pipelines, the Line 5 pipelines have also been recently impacted by ‘cable drags’ and/or catenary events which have damaged the pipelines. Enbridge’s August 21, 2020 report, *Investigation of Disturbances to Line 5 in the Straits of Mackinac Discovered in May and June of 2020*, documents these pipeline strikes and the resultant damage to the pipeline supports.

Importantly, Enbridge identified four of its own contracted vessels that were “likely” responsible for the damage to the pipelines, which were conducting maintenance activities on the pipelines and geophysical work *relating to the construction of the tunnel*.

Other serious risk factors concerning the conditions and location of the dual pipelines identified in the past have been recently documented:

⁷⁸ *Collins v. Gerhardt*, 211 N.W. 115 (Mich. 1926)

⁷⁹ For a detailed and troubling history of the public trust violations associated with the legal agreements and Act 359 legislation that Enbridge brokered in 2018 at the very end of the Snyder Administration, see FLOW’s Public Comments on Public Act 359 and Line 5 Agreements, December 18, 2018

<https://forloveofwater.org/wp-content/uploads/2020/04/FLOW-Public-Comment-12-18-18.pdf>

⁸⁰ FLOW Public Comments on Public Act 359 and Line 5 Agreements, December 18, 2018

<https://forloveofwater.org/wp-content/uploads/2020/04/FLOW-Public-Comment-12-18-18.pdf>

1) Higher Current-Induced Stress on the Elevated Pipelines.

The pipelines are now particularly vulnerable to marine incidents as much as 3 miles of the pipelines are now elevated above the lakebed. The now elevated pipelines are subject to impact hazards and lateral current forces that have not been subject to thorough engineering analyses. In 1953, the original pipeline design, *which was intended to lay upon the lakebed*, was subject to detailed and comprehensive evaluation of 20 specific areas including analyses that examined current forces, longitudinal, shear, torsion, and hoop stress, under differing temperature, and pressure potentials.⁸¹ The evaluations resulted in written determinations of fitness that were certified by consulting engineers.

The now elevated pipelines are infinitely more complex in their structure and configuration relative to the original configuration that rested in the lakebed, are much more vulnerable to marine hazards, and exhibit many more potential “failure modes.” Moreover, instruments have recorded instances where the current at the Strait’s lakebed has reached 4 knots. The 1953 report states, “Under the action of a recorded current of 1.96 knots, the pipe bends laterally.” The currents continue to scour and erode the lakebed requiring additional alterations of the pipelines’ original configuration. There are now more than 200 saddle supports anchored to the bottomlands, elevating the pipelines and radically altering the original pipeline configuration. Yet, there has never been a publicly disclosed engineering analysis of the now elevated pipeline and its supporting structures - which would be done as a matter of course were this a new proposed project.

2) Lack of Financial Assurances in the Event of a Pipeline Failure.

Enbridge Inc., the Canadian parent company, has refused the Governor’s request to provide enforceable financial assurances to the State of Michigan, Sovereign Tribes with treaty rights, or vulnerable coastal communities, for any damages that may result from a catastrophic pipeline failure.

3) Line 5’s History of Oil Spills and Negligent Operations.

Under NEPA, the Corps must evaluate oil spills as part of a Section 404 permit application.⁸² Relevant to this analysis is Line 5’s troubling history of [spilling over 1.1 million gallons of oil](#) into Michigan’s environment since 1953. In May 2018, Enbridge was forced to [pay a \\$1.8 million fine](#) as part of its Line 6B consent decree for failing to meet its pipeline safety inspection obligations (including 2 locations on

⁸¹ Columbia University, Dept of Civil Engineering, *Report on the Structural Analysis of the Subaqueous Crossing of the Mackinac Straits*, 1953.

⁸² *Stop The Pipeline v. White*, 233 F. Supp. 2d 957 (S.D. Ohio 2002) (the Corps prepared EIS for individual 404 permit for a 149-mile petroleum pipeline).

land-based portions of Line 5).⁸³ In June 2020, [EPA imposed a \\$6.7 million fine on Enbridge](#) for pipeline safety and compliance violations with its consent decree. On November 20, 2020, PHMSA indicated it is seeking a \$122,000 fine from Enbridge for probable violations of pipeline safety regulations and is demanding changes in the way Enbridge operates its Lakehead pipeline system in the Great Lakes region.⁸⁴

Enbridge's negligence also caused the largest oil pipeline rupture in Michigan history into the Kalamazoo River watershed near Marshall 10 years ago on July 25, 2010 but they were allowed to construct an even larger pipeline to replace the old Line 6B that ruptured and transport up to 800,000 bbl. This tar sands catastrophe dumped more than a million gallons along 40 miles of the Kalamazoo River, triggering a four-year cleanup that cost more than \$1.3 billion. Enbridge was fined \$61 million as part of an overall \$177-million settlement that required improvements to its Lakehead Pipeline System. This tar sands disaster serves as a poster child for the serious inadequacies of our pipeline regulatory regime and underscores why the public should not rely on the companies responsible for oil spill disasters to prevent and respond to them in the first place.

In short, the tunnel and tunnel pipeline Application cannot be meaningfully considered without a full EIS that includes a thorough analysis of the high risks of imminent harm fostered by the continued operation of the existing Line 5 in the Straits.

4) Adverse Environmental Conditions for Construction.

Enbridge's construction timetable of 27 months is unrealistic given the area's [extreme weather](#), water, and wind conditions all year round and potential ice cover on the Great Lakes for up to six months a year. According to Attorney General Dana Nessel in [an April 6th letter](#) to the U.P. Energy Task Force, "[w]hile Enbridge has proposed and is currently planning to construct a tunnel beneath the Straits to accommodate an eventual replacement for that segment of Line 5, the actual completion of that project is far from certain, and in any event, years away."⁸⁵

IV. Project Construction and Continued Line 5 Operations Both Pose Adverse Impacts to Sovereign Tribal and Fishing Rights.⁸⁶

⁸³ In negotiating the Line 6B 2016 federal consent decree with DOJ and EPA, Enbridge represented that the installation of anchor screws on the lakebed was a safety measure, even though the corporation had full knowledge as early as 2014 that this new engineering configuration was defective, caused pipeline coating loss, elevated Line 5 off the lakebed floor, and ultimately increased the overall risk of an anchor strike and pipeline rupture. In addition, Enbridge applied for three joint Michigan Department of Environmental Quality and Army Corps anchor screw permits in 2016, 2017, and 2018 with full knowledge of its vulnerable configuration. When Enbridge finally disclosed this information in November 2017, the corporation stated that of the 48 out of 128 anchor locations inspected by actual divers had gaps, including three the size of dinner plates that were bare metal and 42 that had calcareous deposits. Mark Tower, *Enbridge finds issues at 42 of 48 sites along underwater oil pipeline*, MLive, Nov. 15, 2017. https://www.mlive.com/news/grand-rapids/2017/11/enbridge_finds_issues_with_42.html.

⁸⁴ PHMSA "Warning Letter" to Enbridge, https://www.eenews.net/assets/2020/12/04/document_ew_03.pdf

⁸⁵ Attorney General Nessel Letter to UP Energy Task Force dated April 6, 2020.

https://www.michigan.gov/documents/ag/Letter_to_UP_Energy_Task_Force_686036_7.pdf

⁸⁶ Again, without waving the invalidity of Enbridge's legal authority and public trust interest to occupy and use the bottomlands of the Straits, the Corps cannot ignore the effects and risks of the continuing use of Line 5 as part of its review and EIS on the proposed tunnel.

An EIS must examine the potential adverse effects of the Application as well as the continued operation of Line 5 to off-reservation fishing rights of five Indian tribes who signed the March 28, 1836 Treaty of Washington (7 Stat. 491): they include Bay Mills Indian Community, Sault Ste. Marie Tribe of Chippewa Indians, Grand Traverse Band of Ottawa and Chippewa Indians, Little River Band of Ottawa Indians, and Little Traverse Bay Bands of Odawa Indians, and are collectively represented by the Chippewa Ottawa Resource Authority (“CORA”).⁸⁷ In the 1836 Treaty these Tribes reserved off-reservation fishing rights in the Great Lakes including the Straits of Mackinac that have been confirmed by the federal courts, *see United States v. Michigan*, 471 F. Supp. 192 (W.D. Mich. 1979), *aff’d*, 653 F.2d 277 (6th Cir. 1981), *cert. denied*, 454 U.S. 1124 (1981).

A. The Construction of the Project May Disrupt Treaty Fishing Rights.

The proposed tunnel and pipeline project in this ecologically rich region threatens to disrupt treaty fishing rights. The Straits of Mackinac are the spawning and fishing grounds for 60 percent of the commercial tribal whitefish catch.⁸⁸ According to Mark Ebener, a Fishery Assessment Biologist for the Inter-Tribal Fisheries and Assessment Program (“ITFAP”) of CORA, “Northern Lake Michigan and Northern Lake Huron are very important fishing grounds for the CORA fishery and the habitat in these areas produces more than ten millions of pounds of lake whitefish annually for harvest by the tribes.”⁸⁹

B. The Corps Must Evaluate Adverse Impacts to Cultural Resources As Part of Tribal Consultation.

In addition to the unacceptable risks to natural resources and Michigan’s economy, the State of Michigan’s 2017 Risk Analysis clearly documents that Line 5 poses an intolerable risk to the federally recognized tribes’ cultural and historic traditions, which rely on the landscape this pipeline traverses to maintain their subsistence lifestyle and cultural identity. In 1836, the tribes reserved the right to fish the Straits of Mackinac.⁹⁰ The exercise of those rights was essential to their very survival, as well as to the maintenance of a way of life and cultural practices dating back to time immemorial. This reserved right to fish is not a reserved right to the actual fish population within the waters of the Straits, but rather is a reserved right to have a connection with the fish, to pray for the fish, to dance with the fish, to harvest the fish, as well as preserve and pass down these culturally significant acts from one generation to the next. A WCS Line 5 spill would undoubtedly affect tribal members’ ability to engage in the act of fishing and the

⁸⁷ We refer to and incorporate by reference public comments by the tribes protected by the 1836 Treaty.

⁸⁸ “Unlike the oceans, the Great Lakes are a relatively confined ecosystem, meaning that they are ill equipped to digest or flush away oil. Oil spills in freshwater ecosystems cause a myriad of short term and long-term effects. Beyond the immediate threat to fish and wildlife, oil spills can also affect the spawning success of trout because the eggs of trout and other salmon species are “highly sensitive to oil toxins,” according to the U.S. Fish and Wildlife Service. (6) Small amounts of oil can kill fish eggs and oil toxicant that lingers in sediment and aquatic vegetation long after a spill is “cleaned up” can harm aquatic ecosystems for decades after a spill occurs. (7)” Exhibit 7 in *National Wildlife Federation v. PHMSA*, filed July 15, 2016.

⁸⁹ Mark Ebener, Fishery Assessment Biologist, Inter-Tribal Fisheries and Assessment Program (“ITFAP”) of CORA Exhibit 5, July 15, 2016.

⁹⁰ *People v. LeBlanc*, 399 Mich. 31 (Mich. 1976); *see also United States v. Michigan*, 471 F. Supp. 192 (W.D. Mich. 1979).

sacred connection to the waters and fish that are essential to their way of life. In sum, the Corps must consult with the Tribes to identify and evaluate the culture resources impacts by the proposed project.

V. Review Under the Rivers and Harbors Act and the Clean Water Act

The Enbridge Application requires authorization under Section 10 of the Rivers and Harbors Act and Section 404 of the CWA. The purpose of the CWA is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters,” 33 U.S.C. § 1251(a)(1), and “to increase the quality and quantity of the Nation’s wetlands.” *Id.* § 2317(a). Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands, unless the activity is exempt from Section 404 regulation (e.g., established farming or ranching activities). In this case, the Corps issues nationwide permits (“NWP”) to authorize any category of activities involving discharges of dredged or fill material in waters of the U.S. that will result in “no more than minimal individual and cumulative adverse environmental effects.”⁹¹

Activities in waters of the United States regulated under this program include fill for development, water resource projects, transportation infrastructure development, and navigational projects. Sections 33 C.F.R. § 322.3. Parts 323 and 325 of the statute provide strict substantive limits on approving projects that degrade water quality or harm aquatic uses. The Corps cannot approve a discharge of dredged or fill material in a 404 permit unless: (1) a practicable alternative exists that is less damaging to the aquatic environment 40 C.F.R. § 230.10(a); (2) there is a demonstration that any discharge from the project “will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern,” *Id.* § 230.1(c), or if any discharge will result in significant adverse effects to water quality,” violating a water quality standard or toxic effluent standard. *Id.* § 230.10(c); (3) the Corps must determine that the project is in the “public interest” by weighing all “relevant” considerations and balancing all probable impacts of the proposed action against its alleged benefits. 33 C.F.R. § 320.4(a); or (4) the Corps must independently verify all the information in the application. See, e.g., *Greater Yellowstone Coal. v. Flowers*, 359 F.3d 1257, 1269 (10th Cir. 2004); see also 40 C.F.R. §1506.5(a). Taken together, these requirements create a “very strong” presumption “that the unnecessary alteration or destruction of (wetlands) should be discouraged as contrary to the public interest.” *Buttrey v. United States*, 690 F.2d 1170, 1180 (5th Cir. 1982).

Under the Rivers and Harbors Act, the Corps cannot approve construction in or under the navigable waters of the United States, like the Great Lakes, unless Enbridge demonstrates there is no risk to the navigational interests of the federal government and the citizens of the United States. This involves consideration of construction and operation of the tunnel and the presence of a crude oil or other pipelines in the tunnel corridor. As noted above, the magnitude of the proposed tunnel and pipeline or pipelines will require extensive evaluation, studies, and considerations of highly technical matters, several of which are a controversial or unique nature not previously designed or fully understood. Approvals involving new technologies under the Rivers and Harbors Act require compliance with the NEPA EIS requirements

⁹¹ 33 U.S.C. § 1344(e)(1) (2018); see legal update on NWP 12 that authorizes minimal impacts from “utility line activities” to jurisdictional waters. <https://www.pipelaws.com/2020/05/court-limits-nationwide-permit-12-vacatur-to-new-oil-and-gas-pipeline-construction/>.

under 42 U.S.C. § 4332(2)(c). In this instance, the proposed project to construct and operate a massive tunnel for a private crude oil pipeline cannot be approved unless there is a full and comprehensive EIS, because (1) the proposed action is a major Federal action; and (2) the proposed action significantly affects the quality of the human environment.

The Application's generic and conclusory statements also fail to provide the information the Corps must have to evaluate the Project under Section 404. Enbridge has not shown that there are no practical alternatives to the proposed tunnel and pipeline, that overall, cumulatively, the Project will have the least impact on the aquatic ecosystem, that its planned methods of construction and operations will comply with the CWA, or that the Project is necessary and in the public interest. The items that Enbridge must provide include but are not limited to: a description of all reasonable alternatives, including systems alternatives, route alternatives, and alternative construction methods; a detailed analysis of the impacts to aquatic resources associated with all reasonable systems alternatives, route alternatives, and alternative construction methods; a detailed feasibility analysis for the Straits tunnel crossing, including a description of the conditions, hydrology, and geology, whether horizontal directional drilling ("HDD") is feasible based on the geology; a wetland delineation reports for all wetlands proposed for impact; wetland mitigation plan in accordance with Mich. Admin. Code § 281.925(4); a detailed analysis of the Project's impacts to water quality, including how the Project will comply with Michigan's laws and regulations implementing the CWA; a detailed analysis of how the Project is in the public interest, as defined by 33 C.F.R. § 320.4(a). In addition, Enbridge must address the impacts to the Great Lakes, Lakes Huron and Michigan, and public trust uses, fishing, navigation, infrastructure, wetlands, species, and public health, safety, and property attributable to climate change from transporting fossil fuels through Line 5 for the next 99 years. The necessity for fossil fuels in a shrinking market coupled with the impacts from climate change are directly related to the continued burning of crude oil and related fossil fuel products carried from Alberta to Canada and foreign ports.

A. Inadequate Information about NPDES Impacts and Contamination of Great Lakes Drinking Water Supplies.

Enbridge's interdependent NPDES permit request (version 3 as of June 3) to EGLE related to the tunnel and pipeline construction poses another related drinking water threat, withdrawing 4 million gallons per day ("mgd") and discharging up to 5 mgd into the Straits of Mackinac. The NPDES permit maximum flow rate, however, could actually discharge 18 mgd (4 million gallons on the north side and 14 million gallons on the south side) from a 10-year storm event, which is nearly four times the original request. At this moment in time, the Application provides inadequate information needed to analyze the potential impacts this proposed water discharge and slurry mixtures would have on community drinking water supplies. Specific Michigan communities whose Great Lakes water supply is at direct risk from a Line 5 oil spill include: Charlevoix, Mackinac Island, St. Ignace, Alpena, East Tawas, and Tawas City. Nearby communities whose water supply also could be threatened include: Bay City, Saginaw, Midland, and Traverse City. Depending on the size of a catastrophic oil spill in the Great Lakes, more than 400,000 residents and other customers with their water supply are at direct risk or potentially threatened.⁹²

⁹² http://flowforwater.org/wp-content/uploads/2017/01/FLOW_brochure_digital-2-2.pdf

B. Potential Adverse Impacts to Wetland Resources.

Enbridge's application concludes that wetlands mitigation requirements be waived and asserts that compensatory mitigation is not needed. Enbridge has not provided the Corps or the public with sufficient information to evaluate the Project under Section 404. Coastal wetlands play a dynamic and vital ecological role in the Great Lakes, particularly in times of high water. Since the early 1800s, however, 40 percent, or 4.273 million acres, of Michigan's wetlands have been destroyed due to drainage, farming, housing, roads construction, and other development. The Great Lakes watershed has lost 62 percent of its original wetlands, and some parts of this region have lost [more than 90 percent of these habitats](#).⁹³ Wetlands protection is one of the highest priorities of the Great Lakes Restoration Initiative, which funds the [Great Lakes Coastal Monitoring Program](#) ("GLCMP"). According to Dr. Donald Uzarski, Director of CMU Institute for Great Lakes Research, Site 1598 Point St. Ignace Wetland is a lacustrine wetland that has been monitored chemically, physically, and biologically in 2011, 2016, 2017, 2018, 2019, and 2020. Significantly, this wetland scores among the best in Northern Lake Michigan ("NLM") in terms of (1) water quality index, (2) vegetation index of biotic integrity ("IBI"), (3) largemouth bass young of the year ("YOY") catch per unit effort ("CPUE"), (4) specific conductance representing the total amount of ions (and pollution) found in the water, and (5) nitrogen concentrations. Based on this extensive research and monitoring, Dr. Uzarski concludes that "Enbridge should avoid reconstructing the road that is established along the perimeter of this relatively pristine wetland. The road will harden the shoreline and add additional runoff to the wetland."⁹⁴ In short, the Corps must order Enbridge to supplement the application with the information needed to evaluate the Project under Section 404 and provide another opportunity for public review and comment.

C. Potential Adverse Impacts to Endangered Species.

Pursuant to the Endangered Species Act, a Section 7 consultation must be conducted as part of an EIS because as the permit notice states: "it is likely to adversely affect northern long-eared bat, Houghton's goldenrod, and dwarf lake iris."

VI. Conclusion and Request for Action

The commentators appreciate the opportunity to comment on the framework and actions to be taken by the Corps pursuant to NEPA, rules, and applicable law to the Enbridge application for permits under the CWA and Section 10 of the Rivers and Harbors Act. For the foregoing reasons, the materials Enbridge has submitted fall far short of meeting its burden under Section 404, and thus, the Corps should deny Enbridge's Application. If and when the Corps moves forward with Enbridge's application, commenters respectfully request that the Corps (1) prepare an EIS as described throughout these comments, and (2) provide further opportunities for public comment.

The current Enbridge Application and supporting information and exhibits are incomplete and insufficient for the Corps to consider granting the requested permits and approvals. For this reason alone, the Application in its present form should be rejected and permits denied. In the alternative, the Corps must

⁹³ FLOW, Wetlands Destruction, <https://forloveofwater.org/issues/wetlands-destruction/>

⁹⁴ Email correspondence between Dr. Uzarski and Jennifer McKay dated July 11, 2020.

determine that the magnitude and scope of the potential impacts, as well as the highly complex scientific and technological, geophysical risks posed by the proposed project.

The project requires the preparation of an EIS to the “fullest extent possible” under NEPA and its regulations, including 40 C.F.R. 1508.27, and alternative analyses related to Section 404 of the CWA and the Rivers and Harbor Act. The Project will impact Great Lakes coastal wetlands, endangered species, and public and tribal lands. Recent discovery of possible paleo-anthropologic sites and paleocultural artifacts in the immediate area of the proposed project and potential evidence of deliberate efforts to conceal this information suggests that higher levels of scrutiny and process transparency are in order. Given that the Line 5 pipelines can be decommissioned with little disruption and cost to the State, its citizens, and the Tribes, the continuing risk of an oil spill through the continued operation of the Straits Pipelines is simply not justified.

The legal agreements and legislation that Enbridge relies on for its permit application violate public trust law because this proposed tunnel and new pipeline have not been authorized or approved by the state as required by the laws of Michigan⁹⁵ or the federal government. If this joint application for Enbridge’s proposed Great Lakes tunnel and pipeline is approved without a NEPA EIS, the Corps and EGLE will have authorized Enbridge to build and operate a private oil infrastructure project on public trust bottomlands and waters without the state or federal agencies ever receiving a comprehensive review of risks, impacts, or alternatives required under controlling and applicable laws. The proposed tunnel and new pipeline option is not the practical alternative with the least impacts on the environment, does not comply with the paramount interests of public trust law, is not in the public interest as required by the MPSC, and is contrary to other state environmental laws.⁹⁶

The body of NEPA legal precedent triggers an EIS in this matter. The recent decisions by the federal D.C. District Court in *Standing Rock Sioux Tribe et al. v. U.S. Army Corps of Engineers*⁹⁷ involving the Dakota Access Pipeline under Lake Oahe is applicable to the Corps’ current consideration of the Enbridge Application. In the Dakota Access case, the U.S. District Court for the District of Columbia found that the Corps had violated NEPA when it granted an easement to the defendant, Dakota Access LLC., to construct and operate a pipeline segment located underneath Lake Oahe, which separates North and South Dakota. The basis for the court’s decision was that the Corps had failed to produce an EIS despite unrebutted expert critiques regarding leak-detection systems, operator safety records, adverse conditions,

⁹⁵ The legal fact is the State of Michigan has primary jurisdiction and control over Enbridge Line 5 in the Straits of Mackinac based on (1) the 1953 Easement, (2) the exercise of the state’s property power, (3) the common law public trust doctrine, (4) the Great Lakes Submerged Lands Act (“GLSLA”), (5) Michigan Environmental Protection Act (“MEPA”); (5) the police power regarding conservation and protection of Michigan’s air, water, and natural resources or public trust in those resources; and (6) the Michigan Constitution Art IV, Sec. 52. Like all of the other states upon entry, when Michigan joined the United States in 1837, the State of Michigan took title, absolutely, as sovereign for its citizens under the “equal footing” doctrine to all of the navigable waters in its territory, including the Great Lakes, and “all of the soils under them” below the natural ordinary high water mark. All of these waters and the soils beneath them are held in and protected by a public trust. The public trust doctrine means that the state holds these waters and soils beneath them in trust for the public for the protection of preferred or dedicated public trust uses of drinking water, bathing, navigation, fishing, boating, swimming, and other recreation.

⁹⁶ *Id.*

⁹⁷ *Standing Rock Sioux Tribe et al. v. U.S. Army Corps of Engineers*,--F.Supp.--, 2020 WL 1441923(D.C.C., March 25, 2020); Memorandum Opinion, July 6, 2020.

worst-case discharge, and the complex and significant unresolved controversy over critical and complex issues that required an EIS under NEPA.

Without an EIS, a joint approval of this proposed tunnel and pipeline project would violate the requirements of NEPA, the CWA, and the obligations between the Corps and the State of Michigan and its applicable laws, including but not limited to, the duty to examine and determine whether a) the Project impairs or results in a valid public trust purpose under public trust law;⁹⁸ b) the extent of impacts to the environment under the MEPA;⁹⁹ c) there is compliance with CWA and the wetlands laws; and d) there are the necessity, public interest, and alternatives to the Project, resulting in a 100-year commitment to fossil fuels and the continuing irreparable damage caused by GHG emissions and climate change impacts.

Finally, the Corps should take such other action as is necessary to prevent any risk of release from Enbridge's existing Line 5 operations in the Straits pending further review and before any final decision is made, including the suspension of the transport of crude oil to prevent serious harm to the waters of the U.S., environment, fishing, navigation, drinking water and other uses, and the related ecosystem.

Thank you for your serious consideration of our comments.

Sincerely yours,

Jane TenEyck
Executive Director
Chippewa Ottawa Resource Authority ("CORA")

Bentley Johnson
Senior Partnerships Manager
Michigan League of Conservation Voters ("MLCV")

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Christina Schlitt
President
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Patty Peek
Chair
Straits of Mackinac Alliance ("SMA")

Conan Smith
President & CEO
Michigan Environmental Council ("MEC")

Bill Latka
Chair
TC350.org

⁹⁸ MCL 324.32501 et seq., particularly the requirement for authorization of the assignment of easement and 99-year lease for the tunnel at issue mandated by Sections 32502 and 32503, MCL 324.32502 and 324.32503, respectively.

⁹⁹ Part 17, NREPA, MCL 324.1701 et seq. ("MEPA").

cc: Michigan Governor Gretchen Whitmer
Michigan Attorney General Dana Nessel
EGLE Director Liesl Clark
MDNR Director Dan Eichinger
MPSC Chairman Sally Talberg
U.S. Senator and Hon. Gary Peters
U.S. Senator and Hon. Debbie Stabenow
Hon. Congressman Jack Bergman