



Protecting the Common Waters of the Great Lakes Basin
Through Public Trust Solutions

June 29, 2017

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VIA ELECTRONIC SUBMISSION

RE: PUBLIC COMMENTS ON THE JOINT APPLICATION OF ENBRIDGE ENERGY TO OCCUPY GREAT LAKES BOTTOMLANDS FOR ANCHORING SUPPORTS TO TRANSPORT CRUDE OIL IN LINE 5 PIPELINES IN THE STRAITS OF MACKINAC AND LAKE MICHIGAN [2RD-DFDK-Y35G]

Applicable Laws Include: Great Lakes Submerged Lands Act, MCL 324.32501 et seq. (“GLSLA”), Common Law Public Trust, the Michigan Environmental Protection Act, MCL 324.1701 et seq. (“MEPA”); Joint Application with US Army Corps of Engineers, Rivers and Harbors Act, Sec. 10, 33 U.S.C. § 403; Clean Water Act (“CWA” and/or “403”).

Dear Michigan Department of Environmental Quality Director Grether; GLSL Unit Chief Milne; and GLSL Unit Specialist Graff; WRD Chief Kim, other Officials; and Staff:

For Love of Water (“FLOW”) is a Michigan nonprofit corporation dedicated to researching, evaluating and providing sound law, science, and policy to protect the waters of Michigan and the Great Lakes, their bottomlands, aquatic resources, and the public trust in these lands, waters, and their protected public trust uses. With respect to crude oil pipeline transport in the Great Lakes, FLOW has submitted several reports to the Governor, Attorney General, Michigan Department of Environmental Quality (“MDEQ”), Michigan Department of Natural Resources (“MDNR”), the Michigan Petroleum Pipeline Task Force (“Task Force”) and Michigan Pipeline Safety Advisory Board (“PSAB”) on the high risks associated with Line 5, including the segment in the Straits of Mackinac.¹ Most recently, FLOW submitted reports on the

¹ Appendix A: [FLOW Composite Report on Line 5 Risks and Recommendations, with Appendices, submitted to Michigan Petroleum Pipeline Task Force](#) (FLOW, Apr. 30, 2015); [A Scientific and Legal Policy Report on the Transport of Oil in the Great Lakes: \(1\) Recommended Actions on The Transport of Oil Through Line 5 under the Straits of Mackinac; \(2\) Supplemental Comments to the Michigan Petroleum Pipeline Task](#) (FLOW, Sept. 21, 2015); [A Report on the Legal and Pipeline Systems Framework for the Alternatives Analysis of the Pipeline Transport of](#)

Enbridge application for anchor supports that the company withdrew last fall,² a letter on high risk and failures and violations of the “Easement” on Line 5,³ and statements to the PSAB on June 12, 2017.⁴ These reports demonstrate and conclude the following:

1. the high risk of catastrophic harm from a crude oil release in the Straits and Lake Michigan and Lake Huron is unacceptable;
2. a release of crude oil from Line 5 near or in Lake Michigan endangers or is likely to impair or substantially affect the public trust interests of the State and citizens in the Straits of Mackinac, Lake Michigan, and Lake Huron;
3. the true intended purpose or project purpose of Enbridge for anchor supports and other upgrades has been to nearly double its capacity to transport crude oil from Alberta through Michigan to Sarnia, with smaller “jump” lines to Marathon in Detroit, and Toledo;
4. there exist a number of suitable alternatives, routes, and existing pipelines or other pipeline capacity (with reasonable adjustments) within the Enbridge and associated pipeline systems into, through, and from the Great Lakes region and Michigan that meet existing and future demand and needs; and
5. interim measures should be immediately implemented based on the authority and duties imposed on the State under public trust, GLSLA, and MEPA to prohibit or reduce the transport of crude oil transport through Line 5, including the Straits of Mackinac, Lake Michigan, pending further proceedings and final decisions related to Line 5 in the Straits.
6. in light of the high risks and degree of harm from a release, it is recognized that if Enbridge is allowed to transport crude oil through Line 5 at the originally flow rate design capacity of 300,000 bpd, some temporary anchor supports may be required and imposed as conditions under Section 32514 pf the GLSLA, pending full review and final action by the MDEQ. However, it should be understood that any such anchors are temporary and do not affect the final decision or action taken by the department. In other words, Enbridge has created its own problem through violations and failures, including lack of good faith in disclosing to the department those failures and potential endangerment from the compromised condition of the twin lines; therefore, Enbridge will proceed at its own risk aware that ultimately its “days are numbered,” as the Attorney General has stated, and crude oil transport through the Straits must end.

In Sections I, II, and III, this letter addresses the legal requirements for the above-referenced application, including administrative completeness, the need for a public hearing, the true project purpose, the required scope of review for the determination of likely impairment, and Enbridge’s demonstration that there exist no alternatives to the true project purpose.

Specifically, given the seriousness of the risk, level of harm, government and public attention,

[Crude Oil in the Great Lakes Region, Including Line 5 under the Straits of Mackinac, submitted to Michigan Pipeline Advisory Board](#) (FLOW, Dec. 2015).

² Comment Letter from FLOW to Director, DEQ, Heidi Grether et al. Aug. 24, 2016. <http://flowforwater.org/wp-content/uploads/2017/06/Final-Letter-re-corrosion-violations-3-9-17-SIZE-ADJUSTED.pdf>

³ FLOW Letter to State of Michigan Re: Re: New Evidence Compels State Of Michigan To Enforce Easement Violations And Eliminate Crude Oil Transport In Line 5 In The Straits Of Mackinac, Mar. 9, 2017. <http://flowforwater.org/wp-content/uploads/2017/06/Final-Letter-re-corrosion-violations-3-9-17-SIZE-ADJUSTED.pdf>

⁴ Statement to Michigan Pipeline Advisory Board, Liz Kirkwood, Exec. Dir, FLOW, June 12, 2017; Statement to Michigan Pipeline Advisory Board, James Olson, Pres., FLOW, June 12, 2017. <http://flowforwater.org/wp-content/uploads/2017/06/FINAL-ERK-comments-to-Pipeline-Advisory-Board-June-2017.pdf>; <http://flowforwater.org/wp-content/uploads/2017/06/FINAL-JO-comment.pdf>.

community resolutions and involvement, and citizen and organization involvement in this matter, a public hearing is necessary and in the public interest. Once the public hearing is scheduled, the DEQ should notice and extend and/or set a new and adequate time period for public comment before and for a period of time after the public hearing.⁵

In Section IV, FLOW presents an update on the critical facts and circumstances regarding violations of Enbridge's 1953 Easement, the critical condition of the twin lines in the Straits, and the grave, increased risk of failure.

In Section V, FLOW concludes that, given present facts and circumstances, reasonable prudence calls for immediate, temporary and permanent measures; these measures include the prohibition or, at the very least, reduction in the rate of crude oil transport through the twin lines in the Straits pending final determinations and actions under the GLSLA. On final determination, the anchor supports should be denied and crude oil transport prohibited because (1) it is the only prudent action to prevent serious potential risks and impacts and impairment to the public trust and riparian interests, and (2) Enbridge cannot demonstrate that there exist no feasible and prudent alternatives.

FLOW greatly appreciates the opportunity to submit these initial comments, and reserves the right to submit additional or supplemental information and comments on the application during the proceedings under the GLSLA.

I. LEGAL FRAMEWORK AND HISTORICAL BACKGROUND ON PUBLIC TRUST LAWS AND 1953 "EASEMENT" AND PIPELINE SITING FROM THE STATE

A. The Common Law Public Trust Doctrine in the Great Lakes

Upon joining the Union in 1837, Michigan took title to all navigable waters and the lands beneath them in trust for the benefit of all citizens.⁶ The public trust includes fish, aquatic resources, and habitat within the boundaries of the Great Lakes and their tributary navigable waters. The public trust protects preferred public trust uses of these waters and lands, including navigation, fishing (including tribal fishing), drinking water, boating, swimming, and fowling dependent on the integrity of these public trust lands and waters.⁷ The public trust imposes an affirmative "solemn" and "perpetual" duty on the state, as trustee, to protect and prevent impairment of these public trust uses, lands, and waters.⁸

There are only two very narrow exceptions⁹ within which the state may authorize a use or occupancy by conveyances, leases, or agreements for public or private use of these bottomlands and waters. The state must determine in due recorded form that (1) the purpose is primarily related to the protection and promotion of these public trust interests and uses; and (2) the proposed use or conduct will not likely result in an unacceptable risk of impairment or harm to these public trust waters, bottomlands and public trust uses, now or for future generations. If these standards are not established and determined by specific findings that the existing or proposed use does not fall within one of the two exceptions, the use or

⁵ GLSLA Section 32514, MCL 324.32514; GLSLA Rule 1017, R 322.1017.

⁶ *Illinois Central R.R. v Illinois*, 146 US 387, 436-37 (1892); *Obrecht v National Gypsum Co.*, 361 Mich 399, 412-414 (1960).

⁷ Sax, Joseph L., *The Public Trust Doctrine in Natural Resources Law*, 68 Mich L. Rev. 471 (1970); Olson, James M., *Universal Adoption of Public Trust Doctrine*, 15 VT. ENV. LAW J. 135 (2014).

⁸ *Collins v Gerhardt*, 237 Mich 38; 211 NW 115, 118 (1926).

⁹ *Obrecht*, 361 Mich at 412-414; Great Lakes Submerged Lands Act, §§ 32502; R 322.1001(m).

activity is not legally authorized.¹⁰

Moreover, it is important to understand that these public trust waters and bottomlands can never be alienated, surrendered, transferred or subordinated. The State reserves the inherent right to modify or revoke any conveyance or agreement for use of these public trust lands and waters to assure and obtain the continued authorization by the State that the use falls within the above-described narrow exceptions.¹¹ For example, in *Illinois Central Railroad v Illinois*,¹² the Illinois legislature granted occupancy of bottomlands and waters of Lake Michigan to the railroad company for private purposes. A subsequent legislature changed its mind and repealed the grant. The company appealed to the courts, and ultimately the U.S. Supreme Court nullified the grant of public trust bottomlands and waters to the railroad because it violated the public trust. The U.S. Supreme Court ruled that:

“The trust devolving upon the state for the public, and which can only be discharged by the management and control of property in which the public has an interest, cannot be relinquished by a transfer of the property... [T]here always remains with the state the right to revoke those powers and exercise them in a more direct manner, and one more conformable to its wishes.” * * * “The legislature could not give away nor sell the discretion of its successors in respect to matters, the government of which, from the very nature of things, must vary with varying circumstances. The legislation which may be needed one day for the harbor may be different from the legislation that may be required at another day. Every legislature must, at the time of its existence, exercise the power of the state in the execution of the trust devolved upon it... There can be no irrevocable contract in a conveyance of property by a grantor in disregard of a public trust, under which he was bound to hold and manage it.”¹³

Because the public trust is perpetual in nature, any private use of public trust waters and lands is subject to changes in knowledge, understanding, and new circumstances.¹⁴ In other words, the public trust is an inherent limitation on any use of public trust resources, and a state trustee cannot be foreclosed from terminating or modifying a previously authorized conveyance or use if it is determined that additional requirements or a termination of the previous authorization, such as the grant of Lake Michigan bottomlands to the railroad in *Illinois Central*, is necessary to protect or prevent harm to the public trust

¹⁰ *Collins v Gerhardt*, 237 Mich at 49; *Superior Public Rights v DNR*, 80 Mich App 72, 85-86 (1977) (The court found the Illinois Central and GLSLA tests for the two narrow exceptions that allow a permit or agreement to occupy public trust bottomlands to be “nearly identical,” and that there was “no inconsistency” between the GLSLA and the narrow exceptions in Illinois Central).

¹¹ *Obrecht* 361 Mich at 412-413; *Illinois Central*, 146 US at 436-437, 453-454.

¹² *Illinois Central*, 146 US at 453-454. (The State cannot abdicate its duty under public trust law; it can only authorize permits or grants for trust uses if within the two narrow exceptions (1) improvement of navigation or a public trust use or (2) no impairment or substantial effect on the public trust bottomlands and waters); *Superior Public Rights v DNR*, 80 Mich App at 85-86 (An unauthorized occupation by utility cooling discharge pipes and an unloading dock fell within one of the GLSLA and Illinois Central exceptions). Plaintiffs claimed the authorization fell outside the two exceptions for permits or conveyances allowed by Illinois Central. The Court of Appeals held that the authorizations for the dock and discharge pipes fell within the exceptions of the GLSLA, and that the GLSA standards were consistent with the narrowly defined exceptions *Illinois Central*).

¹³ 146 US at 459-460. The Michigan Supreme Court adopted the rulings of *Illinois Central* in *Obrecht*, at 412-414; *Illinois Central*, 146 US at 459-460; *National Audubon v Superior Court for Alpine County*, 658 P2d 709 (Cal. 1983); *Kootenai Env. Alliance v Panhandle Yacht Club*, 671 P2d 1085, 1094 (Id 1993).

¹⁴ *State v St. Clair Fishing Club*, 127 Mich 580 (1901); *State v Venice of America Land Co.*, 125 NW 770 (1910); *Illinois Central*, 146 US at 459-460; see also cases cited in footnote 12, above.

resources or their preferred or protected uses. Thus, in a situation like Enbridge Line 5, where the authorization for a pipeline easement is defined by limitations and covenants in the easement or license to occupy bottomlands or waters, any conduct that falls outside the limits of the easement or other agreement, necessarily falls outside the narrow exceptions of *Illinois Central* or the GLSLA.

B. Act 10 and the 1953 “Easement” to Lakehead Pipe Line Company (now Enbridge)

In 1952, Enbridge Energy, then Lakehead Pipe Line Company (“Lakehead”), wanted to construct a pipeline from Alberta to Sarnia, Ontario. To do so, it considered two routes: (1) south around the bottom of Lake Michigan and across the Lower Peninsula, and (2) through the Upper Peninsula, across the Straits and down through the Lower Peninsula to Port Huron and under the St. Clair River to Sarnia. Lakehead chose the shorter, less expensive 645-mile route traversing the Upper Peninsula near the Great Lakes, the Straits, and the Lower Peninsula to Sarnia.¹⁵

In order to build “Line 5,” Michigan’s Attorney General advised the Department of Conservation that it had no legislative authority to grant an interest in the Great Lakes bottomlands to Lakehead. In 1953, the legislature passed Public Act 10, which authorized state agencies to grant “easements” for public utilities to locate pipelines over public lands or bottomlands and waters of the Great Lakes. Any such “easement” or occupancy agreement, if approved, necessarily remains subject to the public trust in these public trust lands and waters. In 1953, Lakehead also obtained approval for public necessity and siting of the Line 5, including the Straits, from the Michigan Public Service Commission (“MPSC”) to acquire the property interests necessary to locate the 645-mile pipeline across the Upper Peninsula, in the Straits, and down through Lower Michigan to Sarnia, Canada.¹⁶

On April 23, 1953, the Department of Conservation granted Lakehead an “easement” to transport 120,000 barrels/day (“bpd”) of petroleum products in the Straits segment of Line 5 subject to express covenants, conditions, and the public trust.¹⁷ Specifically, the “easement” acknowledged the State’s bottomlands are “held in trust.” As part of the State’s continuing obligation to protect the public trust, the “easement” requires that Enbridge “shall at all times exercise the due care of a reasonably prudent person to protect public (public trust lands and waters, public infrastructure) and private property (riparian or other related interests), and the public health and safety.”¹⁸ It also provides that the company has continuing obligation to comply with all federal and state laws.¹⁹ Moreover, there are express conditions in the

¹⁵ Ironically, in 1969, Lakehead obtained state approval to construct another pipeline system around the southern end of Lake Michigan and across the Lower Peninsula known as Line 6B. In 2010, this pipeline ruptured nearly a million gallons of heavy tar sands into the Kalamazoo River, causing the largest and most expensive inland oil spill disaster in U.S. history. Enbridge then took this opportunity to replace Line 6B and doubled its capacity without attracting the same level of scrutiny Keystone XL faced. Charged with the siting and construction of pipelines like the new Line 6B, the Michigan Public Service Commission (“MPSC”) quickly determined it was deemed to be in the “public interest” without conducting a comprehensive impact and alternative study to evaluate the entire Lakehead system and the potentially inessential nature of Line 5. MPSC Approves Enbridge Energy Limited Partnership Request to Construct Part of Line 6B Pipeline Along Alternative Route in Marysville Sept. 24, 2013. http://www.michigan.gov/mpsc/0,4639,7-159-16400_17280-313062--,00.html

¹⁶ See Appendix D. Final As-Built Map for Line 6B (Replacement) October 22, 2014.

¹⁷ Straits of Mackinac Pipe Line Easement, Conservation Commission of the State of Michigan to Lakehead Pipe Line Company, Inc., April 23, 1953 [hereinafter “Easement”],

http://www.michigan.gov/documents/deq/Appendix_A.1_493978_7.pdf Reference to the 1953 in this report as “Easement” refers to its title or the document for convenience; it is not meant to characterize the document as an easement appurtenant, for the reason that is in the nature of an easement in gross or license.

¹⁸ *Id.*, Section A.

¹⁹ *Id.*

“easement” that require a 75-foot maximum unsupported span and other measures to prevent a compromise or failure of the integrity of the line. As will be seen in Section IV of this report, there have been major violations of this requirement that have seriously compromised the integrity of the twin pipelines in the Straits; in short, Enbridge has in various ways exceeded the scope of use authorized under public trust law for decades. Necessarily, for the Easement to be valid it must fall within one or two of the exceptions for authorized use of public trust bottomlands and waters under Illinois Central and common law of public trust.²⁰ The terms and limitations of an easement define the extent of the use to assure that it does not exceed the narrow exception authorized by public trust law.²¹

Finally, special attention must be given to the true legal nature of the 1953 “Easement.” An easement that runs with the land in perpetuity has both a *servient* parcel and *dominant* parcel. The servient parcel is the parcel over or in which the use is granted. The dominant parcel is the legal property that is benefited. Where an easement is granted by the servient parcel owner, but does not attach to an adjacent dominant parcel, the easement is not an easement in perpetuity or that runs with the land. Rather, the courts consider the grant of use in the servient parcel as an “easement in gross” or “license.” In either instance, the right of easement is a right to use to a particular person or entity, not a parcel of land, and is therefore considered personal only.²²

In addition, because the grant of use under the 1953 “Easement” is for the use of Great Lakes bottomlands, the use is subject to the public trust title of the state and beneficiary rights and use of citizens or the public. As such, the 1953 “Easement” is considered to be more in the nature of a license or privilege.²³ As noted in Section A. above, this is because one legislature or agency cannot bind a subsequent legislature or agency vested by the legislature to exercise public trust and property power on behalf of the state.²⁴

This means the 1953 Easement, as a matter of law, is not and cannot be deemed to run with the land in perpetuity, and that it is not an easement appurtenant. Rather, for purposes of the present Application and underlying requirements of the GLSLA and its Rules, the “Easement” is in legal fact “in gross” or a “license,”²⁵ which is subject to the limitations inherent in the legal nature of the rights of use that State conveyed by the 1953 document. It means that there are no vested real property rights that exempt the current application and requirements of the GLSLA, and that Enbridge must to conform with conveyance agreements and permit provisions set forth in the GLSLA, its rules, and other laws. Moreover, the Easement is subject to the public trust, which is in perpetuity, and public trust law necessarily reserves to the DEQ, DNR, and State the power to modify, terminate, or require compliance of the 1953 “Easement” with the additional provisions of the GLSLA and its Rules.

²⁰ See Section I,A, above, and discussion of *Illinois Central*, *Obrecht*, and *Superior Public Rights* cases and accompanying notes.

²¹ For example, see discussion in Section IV, below, concerning Enbridge violations of 75-foot span limitations of the Easement. By violating this limit, Enbridge has exceeded its authority, compromised the integrity of the line.

²² As such the easement in gross or license, if that is what is, is not assignable and is revocable. *Sweeney v Bird*, 293 Mich 624 (1940); *Kitchen v Kitchen*, 465 Mich 654. 658-659 (2002). This is consistent with the inalienability limitation on grants of occupancy or use of public trust lands and waters to private entities or persons. See Sectuib I.A. and *supra* note 19 for a discussion of key public trust cases.

²³ *Forge v Smith*, 458 Mich 198 (1998).

²⁴ See *Illinois Central*, 146 U.S. at 459-460; *National Audubon*, *supra*, 658 P2d 709 (Cal. 1983); *Kootenai Env. Alliance v. Panhandle Yacht Club*, 671 P2d 1086, 1094 (Id. 1983).

²⁵ *Illinois Central*, 146 U.S. at 456.

C. The Great Lakes Submerged Lands Act and Rules

Shortly after the “easement” was transferred to Lakehead, the legislature passed the Great Lakes Submerged Lands Act (“GLSLA”) in 1955. The GLSLA authorized the State under narrow circumstances to convey leases, deeds, occupancy agreements, or issue permits for use of patented lands on proper consistent with standards under the public trust doctrine. The purpose of the GLSLA at the time was to require authorization for both past unauthorized and future uses of unpatented, patented, and previously filled bottomlands.²⁶ Under public trust law and the GLSLA, there are only two narrow exceptions for occupancy and use of public trust lands and waters: (1) the use must be primarily for a public purpose that benefits the public trust; (2) the proposed use must not impair or substantially affect the public trust in the bottomlands and waters of the Great Lakes.²⁷

General police power laws and regulations cannot impair contracts, so there is a presumption that these laws are not retroactive to existing contracts.²⁸ However, the presumption does not apply to the GLSLA, because it is an exercise of the state property power and police power over public trust waters and bottomlands. This is because a state cannot surrender or alienate the public trust or public trust protected uses, and one legislature or agency cannot bind a subsequent legislatures from imposing new or additional limitations or requirements to assure compliance with the exceptions and standards under public trust law for use of bottomlands and overlying waters.²⁹ As a result, the state as a matter of law could enact the GLSLA in 1955 and impose additional requirements for the use of Great Lakes bottomlands, including conveyance of occupancy agreements; the state cannot relinquish this power, and the nature of Enbridge’s “Easement” is subject to subsequent legal requirements for use of public trust bottomlands and waters. Therefore, Enbridge must obtain a occupancy agreement for Line 5 under the 1955 GLSLA for lawful authorization for its use of public trust bottomlands for its crude oil Line 5 in the Straits to conform to the the public trust standards of *Illinois Central* and the GLSLA.

Section 32502 states:

The lands covered and affected by this part are all of the unpatented lake bottomlands and unpatented made lands in the Great Lakes, including the bays and harbors of the Great Lakes, belonging to the state or held in trust by it, including those lands that have been artificially filled in... This part shall be construed so as to preserve and protect the interests of the general public in the lands and waters described in this section, to provide for the sale, lease, exchange, or other disposition of unpatented lands, and to permit the filling in of patented submerged lands whenever lands and waters will not substantially affect the public use of those lands and waters for hunting, fishing, swimming, pleasure boating, or navigation or that the public trust in the state will not be impaired by those agreements for use, sales, lease, or other disposition.

Clearly, the GLSLA requires permits and conveyance agreements for both unpatented and patented lands, as well as previously filled lands. For the reasons stated, the public trust and the GLSLA did not and could not limit its reach to only prospective applications; as noted above, a legislature or agency cannot bind a subsequent legislature when it comes to public trust lands and waters. The GLSLA brought

²⁶ MCL 324.32502, MCL 324.32503.

²⁷ *Illinois Central*, 146 U.S. at 456-460; *Obrecht*, 361 Mich. at 412-414; *Superior Public Rights*, 80 Mich App 72 at 85-86.

²⁸ *Lynch & Co. v Flex Techs*, 463 Mich 578, 583 (2001); *Franks v White Pine Copper Div.*, 422 Mich 636, 670 (1985).

²⁹ *Illinois Central*, 146 U.S. at 453-454, 459-460.

Michigan into compliance with the narrow exceptions for allowing private use of public trust waters and bottomlands set forth in Illinois Central. In any event, Sections 32502 through 32505 make it clear that the GLSLA is intended to cover past uses that were not authorized as one of the two narrow exceptions required by *Illinois Central*.

Accordingly, for Enbridge to obtain permits for its proposed anchors, it must also obtain authorization under Sections 32502, 32503, 32504, and 32505 and its Rules for its use of bottomlands within the 1953 “Easement” through due recorded findings that the public trust standards for one of the two narrow exceptions for grants or occupancy of public trust bottomlands have been made. Enbridge has never complied with the determinations and standards required by the GLSLA.

Section 32503(1) states:

... the department, *after finding that the public trust in the waters will not be impaired or substantially affected, may enter into agreements pertaining to waters over and the filling in of submerged patented lands, or to lease or deed unpatented lands, after approval of the state administrative board. Quitclaim deeds, leases, or agreements covering unpatented lands may be issued or entered into by the department with any person, and shall contain such terms, conditions, and requirements as the department determines to be just and equitable and in conformance with the public trust.*

Enbridge proposes to occupy unpatented bottomlands with additional anchor supports. The 1953 “Easement” did not convey a patent and there is no previous patent. Even if it is argued the “Easement” is like a previous issued patent, it requires an agreement or permit as “waters over” and “filling in” under Section 32503.³⁰

Section 32504 states:

(1) ... An application shall include a *surveyed description of the lands or water area applied for, together with a surveyed description of the riparian or littoral property lying adjacent and contiguous to the lands or water area... The applicant shall be a riparian or littoral owner or owners of property touching or situated opposite the unpatented land or water area over patented lands applied for or an occupant of that land. The application shall include the names and mailing addresses of all having... an interest in the adjacent or contiguous riparian or littoral property or having riparian or littoral rights or interests in the lands or water areas applied for, and the application shall be accompanied by the written consent of all persons having an interest in the lands or water areas applied for in the application.*

The instant Enbridge application is incomplete because it does not contain the survey, names, ownership, and consent of adjacent riparian owners or the riparian owners of land adjacent to the “Easement” and area that would be occupied by the anchor supports. Even applications for permits under Section 12 of the GLSLA require the applicant to be a riparian and to obtain written consent of all adjacent riparians. Enbridge has not identified or supplied this information, nor has it submitted proof that these persons have received the applications. In addition, GLSLA Rule 1009 expressly requires that a “riparian owner shall obtain a permit” before dredging, filling, placing spoil or other materials on bottomlands.³¹

³⁰ MCL 324.32503.

³¹ R322.1009(1).

- (2) Before an application is acted upon by the department, the *applicant shall secure approval of or permission* for his or her proposed use of such lands or water area from *any federal agency* as provided by law, the department with the advice of the Michigan *waterways commission*, and the *legislative body of the local unit or units of government* within which such land or water area is or will be included, or to which it is contiguous or adjacent. A deed, lease, or *agreement shall not be issued or entered into by the department without such approvals or permission.*

Again, Enbridge’s application is incomplete and not in conformance with the requirements for conveyance, agreement, or permit under the statute, rules, or public trust standards imposed by the GLSLA. Even a permit under Section 12 must comply with these mandatory provisions, and Enbridge has not supplied these items.

Section 32512³² states:

- (1) *...unless a permit has been granted by the department pursuant to part 13 or authorization has been granted by the legislature, a person shall not do any of the following:*

* * *

(c) Dredge or place spoil or other material on bottomland.

According to legislative history, this Section was added in 1995 and later amended to address bottomlands grooming or similar activities by riparian landowners. Enbridge’s Application for anchor supports does not fall within any of these categories. However, it appears that without amending Section 32512(1) (c) the DEQ added a definition of “other materials” to its GLSLA Rules in 1982 to include “any man-made structure... placed on bottomlands.”³³ Adding “structures” to “materials” used in a section intended to address only dredging and placement of spoils in Section 32512(1)(c) was a stretch. It clearly exceeds the limits imposed by the GLSLA on DEQ’s rulemaking authority that any rules must be “consistent with this part.”³⁴ A structure occupies bottomland and is not related to dredging or spoils, and must obtain an agreement in connection with its overall intended purpose under Section 32502 and 32503 of the GLSLA. In addition, the activity of placing a structure also constitutes an occupancy or conduct requiring a permit under the GLSLA.³⁵

All applications for occupancy and/or permits must be made by a riparian owner, with the required consents and approvals by adjacent landowners and local units of government described above. In addition, any permit for such activity must comply with GLSLA Rule 1015.

Rule 1015 states:

Rule 15. In Each application for a permit, lease, deed, or agreement for bottomland, existing and *potential adverse effects shall be determined. Approval shall not be granted unless the department has determined both* of the following:

³² MCL 324.32512.

³³ R 322.1001(k).

³⁴ MCL 324.32509.

³⁵ MCL 32503-32505.

(a) That the adverse effects to the environment, public trust, and riparian interests of adjacent owners *are minimal and will be mitigated to the extent possible*;

(b) That there *is no feasible and prudent alternative* to the applicant's proposed activity consistent with the reasonable requirements of the public health, safety and welfare."³⁶

Enbridge has not submitted any environmental assessments or studies that demonstrate the *potential* adverse effects to air, water, natural resources, or protected public trust uses and interests, such as navigation, boating, fishing, swimming, drinking water, and habitat for fishing and other wildlife species. It has not submitted any reports on the risk and potential adverse effects on adjacent private or public riparian properties, values, uses, or businesses. In the absence of this information, or without independent information and studies conducted by or for the department or submitted by other persons or entities, the DEQ cannot make any determination that such potential is "minimal" or "mitigated to the extent possible." By contrast, FLOW and other organizations and persons have submitted to the DEQ, DNR, and Attorney General significant legal and technical reports that demonstrate significant potential adverse effects and harm to water, tribal fisheries, public fishing, fish and other natural resources, and other public trust uses, such as swimming, boating, and drinking water. Those reports are incorporated by reference, together with the information submitted by this comment and attachments, and others during this application process.

Similarly, Enbridge has not submitted any alternative studies or reports that demonstrate there exist no alternatives to the transport of crude oil through Line 5, or at reduced levels through Line 5 pending this application proceeding. Again, FLOW and other organizations and persons have submitted to the DEQ, DNR, and Attorney General legal and technical reports that demonstrate that there exists ample capacity, other routes, and modifications, particularly with the doubling of Line 6B across southern Michigan. Those other reports are also incorporated by reference or as submitted by others during this application proceeding.

The current application is either incomplete or the application must be denied as unsupportable or inadequate for the DEQ to make the required determinations.

In this regard, the DEQ must consider and determine Enbridge's true intended purpose or project purpose that is directly related to the anchor supports applied for by this application, together with other applications filed and approved to date to upgrade its system to nearly double the rate of crude oil it transports through Michigan.

For ascertainment of the real intended purpose and reasonably necessary scope of review of potential effects and alternatives related to this application, the Department is referred to the next Sections II and III of this report.

Rule 1011 states:

Rule 11(1) The department may require such permit conditions as reasonable and necessary to protect the public trust and private riparian interests, including the following conditions:

³⁶ R 322.1015.

(a) [A] surety bond or other acceptable guarantee before issuing a permit for projects with the potential for significant environmental impact...

* * *

(b) Monitoring to assure that injury to natural resources or to riparian interests does not occur...

(c) That the project be in compliance with local zoning ordinances, if the local government objects within 30 days from public notice.³⁷

Enbridge has not submitted an environmental assessment or studies that adequately determine the “worse-case” scenario, the extent of potential damage to air, water, natural resources, fishery, drinking water, swimming, boating, wildlife, habitat, or private riparian property and businesses. Enbridge has not submitted any information regarding the amount of a surety or equivalent that protects the measure of the value of these public trust interests and uses and private property and businesses in event of a rupture or leak resulting in damage or injury to public and private riparian property and interests.

D. The Michigan Environmental Protection Act (“MEPA”)

In 1963, the people of Michigan adopted a new constitution. Article 4, Section 52 mandatorily requires the legislature to pass laws that protect the state’s paramount concern for the air, water, natural resources, or public trust interest in those resources from pollution or impairment.³⁸

In 1970, the legislature passed the Michigan Environmental Protection Act (“MEPA”),³⁹ which prohibits likely pollution, impairment, or destruction of the air, water, natural resources or the public trust, except where it is considered and determined by a state or local governmental body or court that there exists no feasible and prudent alternative.⁴⁰ The MEPA imposes a duty on governmental and private entities to prevent and minimize environmental degradation or impairment of air, water, or natural resources or public trust.⁴¹

In addition, under a separate legal duty, the MEPA applies to state and local governments, and requires them in any permit, licensing or other similar proceeding, such as the GLSLA or siting of pipelines by the MPSC, to consider and determine likely effects and whether there exist alternatives that better comply with the duty to prevent or minimize harm or impairment to air, water, natural resources and the public trust.⁴²

³⁷ R 322.1001(1).

³⁸ Mich. Const. 1963, Art. 4, Sec. 52; see also, Mich Const. 1963, Art. 4, Sec. 51 imposes a similar mandate to protect public health. The provision is self-executing on legislature and state agencies to protect and prevent degradation of the air, water, natural resources or public trust in those resources. *Ray v Mason Co Drain Comm’r*, 393 Mich 294; 224 NW2d 883 (1975); *State Hwy Comm’n v Vanderkloot*, 392 Mich 159; 220 NW2d 416 (1974).

³⁹ Part 17, NREPA, MCL 324.1701 *et seq.*

⁴⁰ *Id.*, MCL 324.1703(1); MCL 324.1705; *Ray v Mason Co*, 393 Mich 294; *State Hwy Comm’n v Vanderkloot*, 392 Mich 159.

⁴¹ *Id. Ray*, 393 Mich at 294.

⁴² MCL 324.1705(1) and (2); for circuit court cause of action to enforce the duty to consider effects and alternatives, see *Vanderkloot*, 392 Mich at 159; *Buggs v. Michigan Public Service Comm’n*, 2015 WL 15975 (Mich Ct. App, Jan. 13, 2015) (*unpublished*) (Court ruled that the MPSC failed to sufficiently consider environmental impacts and feasible and prudent alternatives to a proposed pipeline as required by the Michigan Environmental Protection Act, MCL 324.1701 *et seq.*)

Thus, in addition to the procedural and substantive requirements of the GLSLA, Enbridge and the MDEQ must comply in these proceedings with the legal duties, considerations and determinations required by the MEPA.

E. Michigan Public Service Commission (“MPSC”), Act 29

Michigan Crude Oil and Petroleum Act – Act 16 of 1929

In 1953, Act 16 of 1929 authorized the Michigan Public Utilities Commission to approve the siting of crude and oil petroleum pipelines, including Line 5. Modernly, the Michigan Public Services Commission (“MPSC”) approves the siting and construction of new petroleum pipelines in Michigan under the same law. In contrast to a natural gas pipeline, there is no federal jurisdiction over the location, siting, and construction or abandonment of an oil pipeline. The MPSC, however, ensures that the petroleum pipelines are built and maintained in accordance with the minimum federal safety standards by PHMSA.

Thus, the state-federal relationship governing crude oil and petroleum is clearly defined in so far as the state is responsible for pipeline siting requirements, including the acquisition of land and easements, while the federal government has jurisdiction for ensuring the safe transportation of petroleum and hazardous liquid products. Interestingly, the Federal Energy Regulatory Commission’s only role in regulating crude oil and petroleum pipelines involves rates and services.

Rules and decisions adopted by the MPSC require a showing of public interest, necessity, and no other reasonable alternatives.⁴³

Further, as described in the following Section II, the MPSC was complicit in allowing Enbridge to upgrade and greatly expand the design capacities of Enbridge’s Lakehead system in Michigan through piecemeal applications for stations and anti-friction devices and segments of Line 5 and Line 6B (now renamed Line 78). As a result, the company evaded and the MPSC failed to enforce the legal duty to comprehensively consider and determine the potential adverse effects and alternatives to this expansion of the Lakehead system.

II. ENBRIDGE’S TRUE INTENDED PURPOSE OR PROJECT PURPOSE IS TO NEARLY DOUBLE THE RATE AND VOLUME OF CRUDE OIL TRANSPORTED THROUGH ITS PIPELINES INTO, ACROSS, AND OUT OF MICHIGAN.

MPSC documents reveal that Line 5 was originally designed for 120,000 bpd with the option to increase to 300,000 bpd through the addition of 4 pump stations.⁴⁴ In 2013, Enbridge invested \$100 million to increase capacity and flow volumes to 540,000 bpd through 12 pump stations and

⁴³ 1929 PA 16, MCL 483.1 et seq.; MPSC Practice and Procedure, R 460.17601 et seq.; e.g. Wolverine Pipeline Case No. U-13225, Opinion and Order, July 23, 2002; Enbridge Energy, Ltd Partnership, MPSC Case No. U-17478, Order, Sept. 24, 2013, concerning segments 6 and 7, Enbridge expansion of capacity by replacing Line 6B with a new 36-inch diameter line. These orders and opinions, like other Enbridge applications to MPSC and DEQ represent to be “replacements” for rehabilitation, maintenance, and integrity, even though they are intended for and part of an massive Enbridge expansion of capacity to transport crude oil through the Lakehead System.

⁴⁴ See Michigan Public Service Commission, Opinion and Order, In the matter of the Application of Lakehead Pipe Line Company for approval of construction and operation of a common carrier oil pipeline (Case D-3903-53.1, March 31, 1953) p. 6, March 31, 1953. http://www.michigan.gov/documents/deq/Appendix_A.3_493982_7.pdf

anti-friction injection facilities—an expansion of 80 percent the original design capacity.⁴⁵ Despite a manifold increase from original volume or capacity and expanded use of Line 5, Enbridge applications to the MPSC have beguilingly characterized the additional approval of pump stations and other equipment as merely “maintenance,” “rehabilitation,” or for “integrity,” and have piecemealed these applications into several segments.⁴⁶

Similarly, in the past several years, Enbridge has implemented its plan to greatly expand its crude oil transport system to 800,000 bpd from Alberta and North Dakota through its Lakehead System⁴⁷ in the Great Lakes and Midwest region of the U.S. Numerous press releases, news reports, articles, and Enbridge applications to MPSC, and other agencies, and MPSC records, findings, and decisions show a massive expansion through a multibillion-dollar investment to increase capacity through changes to its pipeline infrastructure.⁴⁸ For example, after the Line 6B disaster in 2010, Enbridge filed a number of applications to the MPSC to add a new replacement Line 6B parallel to the failed line based on a misleading stated purpose of “preventive maintenance.” In fact, the new Line 6B (now Line 78) has doubled the capacity for transport of light and heavy crude up to 800,000 bpd,⁴⁹ making Line 5 inessential.⁵⁰ To date, the MPSC has never considered or determined the environmental impacts and feasible and prudent alternative pipeline system and adjustments of this massive expansion in either Line 5 or Line 6B. Some documents note that Line 6B has operated under a reduced capacity of 240,000 bpd to maintain lower pressure to minimize the risk of a release of the aging old Line 6B that ruptured,⁵¹ So the

⁴⁵ Appendix A. FLOW Report, Sept. 21, 2015.

⁴⁶ See Appendix D. Enbridge undisputedly has narrowed the scope of review of impacts and reasonable or suitable alternatives to the massive expansion of crude oil through Michigan by dividing the new pipeline and equipment and new facilities for 6B into separate applications and segments. E.g, see Line 6B Segmentation Map and “maintenance” applications for several anti-friction stations to increase volume flow rate in Line 5.

⁴⁷ “Enbridge’s Lakehead Pipeline System (“Lakehead System”) includes a network of pipelines that are grouped within right-of-ways that collectively span 1,900 miles from the international border near Neche, North Dakota to delivery points in the Midwest, New York, and Ontario. The products transported by these pipelines allegedly include natural gas liquids and a variety of light and heavy crude oils.” The Lakehead System is the part of Enbridge’s larger Mainline System with more than 3,000 miles of pipeline corridors in the United States and Canada and is the single largest conduit of liquid petroleum into the United States, delivering on average 1.7 million barrels of oil in to the U.S. each day—a figure that accounts for 23% of the U.S. crude oil imports. See *USEPA v Enbridge Energy LP*, Civil Action No. 1:16-cv-914, Consent Decree, (May 23, 2017), p 4.

https://www.epa.gov/sites/production/files/2017-05/documents/enbridge_entered_consent_decree_may_2017.pdf

⁴⁸ See the following documents, which are hereby incorporated by reference: Enbridge Energy Partners Announces Major Expansions of Its Lakehead System (May 15, 2012) <http://www.marketwired.com/press-release/enbridge-energy-partners-announces-major-expansions-of-its-lakehead-system-nyse-eep-1658358.htm>; Application for Enbridge Energy 2012 for Amendment to the Aug. 3, 2009 Presidential Permit for Line 67 to Increase Operational Capacity of Pipeline Facilities <http://www.state.gov/e/enr/applicant/applicants/202433.htm>; In re Enbridge Energy, Limited Partnership Application Case No. U-17020, Pre-Filed Direct Testimony of Mark Sitek And Exhibits, pp. 6-7, 12, 20-21, 25 <https://efile.mpsc.state.mi.us/efile/docs/17020/0010.pdf>; MPSC Approves Enbridge Energy Crude Oil and Petroleum Pipeline Running Through 10 Michigan Counties (Jan. 31, 2013)

http://www.michigan.gov/mpsc/0,4639,7-159-16400_17280-294097--,00.html; MPSC Approves Enbridge Energy Limited Partnership Request to Construct Part of Line 6B Pipeline Along Alternative Route in Marysville (Sept. 24, 2013) http://www.michigan.gov/mpsc/0,4639,7-159-16400_17280-313062--,00.html

⁴⁹ See Appendix A, Appendix B.

⁵⁰ In re Enbridge Energy, Limited Partnership Application Case No. U-17020, Pre-Filed Direct Testimony of Mark Sitek and Exhibits, p 25. <https://efile.mpsc.state.mi.us/efile/docs/17020/0010.pdf>.

⁵¹ See Enbridge’s Keystone-Like Expansion, pipeline and capacity chart, <http://insideclimatenews.org/map-another-major-tar-sands-pipeline-seeking-us-permit>, and accompanying text.

expanded 800,000 bpd capacity is nearly four-fold. It should be noted that although Line 6B has been doubled to 900,000 bpd, the last Segments 6 and 7, from Stockbridge to Sarnia, have a capacity of 500,000 bpd, because Enbridge obtained approval for another segment to increase capacity through a southern branch to Toledo and Detroit refineries. Had the MPSC properly evaluated alternatives to the Lakehead system, including Lines 6B and Line 5, in 2012 through 2014, Line 5 would have been properly evaluated as an alternative in conjunction with overall intended purpose and no longer needed.

In effect, as opposition to the north-south route of Keystone XL in the West mounted, Enbridge expanded its own pipeline Keystone-like system⁵² by an apparent intentional stealth, under-the-radar application, public notice and segmented line, stations, and other equipment upgrades scheme to avoid comprehensive impact and alternative analyses under NEPA and Michigan law, discussed in Section III, below. As a result Michigan and the Great Lakes region have ended up with their own “Great Lakes XL” crude oil pipeline,⁵³ without full disclosure and consideration of purpose, impacts, and alternatives as required by law and regulation. The expanded capacity of Line 5 and Line 6B has gone from an original 700,000 bpd to more than 1,340,000 bpd, considerably larger than Keystone XL. The true and real purpose of Enbridge applications for additions and upgrades to Line 5 and Line 6B have not been for repair, maintenance, or rehabilitation and integrity of existing lines; the real purpose is and has been to implement a larger line than Keystone XL—“the Great Lakes XL.”⁵⁴

III. PROPER LEGAL SCOPE AND PURPOSE DEMAND FULL REVIEW OF IMPACTS AND ALTERNATIVES FOR ENBRIDGE APPLICATION

Enbridge’s application and supporting documents avoid the proper scope and review required by law. A hard look at the true purpose of Enbridge’s actions and intent to massively expand capacity throughout its existing Great Lakes pipeline system is warranted.

Beyond the 1953 Easement and the self-serving “maintenance” strategy of Enbridge, there is an overarching legal duty of the MDEQ and state officials to protect the Great Lakes, including the public trust and environment. This duty arises out of the GLSLA, the MEPA, and common law of public trust, and requires a comprehensive review of the overall purpose and expansion of Enbridge in Michigan, and specifically the Straits and waters and bottomlands of the Great Lakes. As noted above, the public trust and duties under the MEPA are continuing and perpetual. The 1953 Easement is by its terms subject to public trust and state laws like the GLSLA and the MEPA, as well as federal laws and regulations, like the CWA, RHA, and the National Environmental Policy Act (“NEPA”) (with the environmental impact and alternative process).⁵⁵ In each GLSLA application for a permit, lease, deed, or agreement, the MDEQ shall not grant approval unless it has evaluated *potential* adverse effects and “determined *both* of the following:

- (a) That the adverse effects to the environment, public trust, and riparian interests of adjacent owners are minimal and will be mitigated to the extent possible;
- (b) That there *is no feasible and prudent alternative* to the applicant’s proposed activity

⁵² Id.”...while all eyes are on Keystone XL, another Canadian company is quietly building a 5,000 pipeline network of new and expanded pipelines that would achieve the same goal the Keystone.” It is larger than the capacity of Keystone XL proposed 830,000 bpd.

⁵³ See Sierra Club. *Enbridge Over Troubled Water: The Enbridge GXL System’s Threat to the Great Lakes*. Feb. 2016. <https://www.sierraclub.org/sites/www.sierraclub.org/files/blog/Enbridge%20Over%20Troubled%20Water%20Report.pdf>

⁵⁴ See Appendix D. “Map: Another Major Tar Sands Pipeline Seeking U.S. Permit” June 3, 2013

⁵⁵ 42 U.S.C. 4332(2)(C).

consistent with the reasonable requirements of the public health, safety and welfare.”⁵⁶

In other words, the standards for purpose, public necessity, and public trust in the GLSLA and under public trust law demand a comprehensive review of environmental impact, public trust resources impact, and use impact, and alternatives or options assessments and determinations.⁵⁷ Thus, the state cannot allow the status quo in the use of Line 5 on public trust bottomlands or overlying waters *unless* Enbridge can demonstrate – as required by the easement, the GLSLA, public trust state laws, and federal laws – that (1) these 4.6 mile submerged pipelines will not likely harm public trust waters, the ecosystem, fishing, commerce, navigation, recreation, drinking water and other uses that depend on these waters; (2) there exist no other prudent and feasible alternative routes, pipelines, and capacities.

In addition, MEPA requires a consideration of such effects and whether there exist “feasible and prudent alternatives.”⁵⁸ Moreover, MEPA requires compliance by an agency with the affirmative duty to prevent and minimize impairment or pollution,⁵⁹ and an independent duty to consider likely environmental impacts and alternatives to the fundamental purpose for which the project is being implemented.

The Task Force report recommended two separate, independent, and “comprehensive” analyses on Line 5’s risks and alternatives.⁶⁰ The law of impact and alternative statements and assessments demands comprehensive and full studies, including a proper scope and purpose that addresses all potential impacts and all alternatives such as other pipeline routes and adjustments within the overall pipeline system in question.⁶¹

The Michigan Pipeline Safety Advisory Board is providing oversight of these studies, which are being done by contract with the state through the Attorney General’s Office (risk study)⁶² and the MDEQ (alternatives study). This current state-led process slated for completion in late 2017/early 2018 is neither under rule of law nor complies with the GLSLA, public trust, MEPA, or NEPA impact and alternative assessment requirements.

By the express terms of the easement and privilege to use public trust bottomlands and waters of Michigan, Enbridge’s easement interest is subordinate⁶³ to and must comply with the legal agreement along with all federal and state laws. In addition, Enbridge is subject to state laws authorizing the company to locate and operate crude oil pipelines in Michigan. Accordingly, it is up to the state to fully apply the laws within the scope and purpose that addresses the full risks and alternatives concerning

⁵⁶ R 322.1015 (emphasis added).

⁵⁷ *Obrecht*, 361 Mich at 412

⁵⁸ MEPA, Section 1705; *Vanderkloot*, 392 Mich at 159; *Buggs* 2015 WL at 15975; *Genesco v MDEQ*, 250 Mich App 45 (2002).

⁵⁹ *Id.*; *Ray*, 393 Mich at 294.

⁶⁰ Task Force Report, p 47.

⁶¹ See Appendix A, FLOW Alternatives Legal Framework report to Michigan Pipeline Advisory Board, Dec. 2016, at pp. 10-12, *supra* note 1; see also NEPA, 40 CFR 1502.1, calling for “full” discussion of alternatives; 40 CFR 1502.14 for “rigorous” exploration of alternatives.

⁶² On June 22, 2017, the State of Michigan terminated the contract with independent contractor, Det Norske Veritas Inc (DNV), who was commissioned to prepare the risk analysis report on Line 5 under the Straits. Ellison, Garrett. “Line 5 Risk Study Spiked At Last Minute Over Conflict of Interest Violation,” M Live. June 22, 2017. http://www.mlive.com/news/index.ssf/2017/06/line_5_det_norske_veritas_cont.html

⁶³ *State v St. Clair Fishing Club*, 127 Mich 580 (1901); *State v Venice of America Land Co.*, 125 NW 770 (1910); *Illinois Central R.R.* 146 US at 436-37; *Obrecht* 361 Mich at 412.

transport of crude oil in Michigan.

The time has come for the MDEQ and State of Michigan to consider and determine the purpose and scope of impact and alternative review, assessments and decisions. Under the GLSLA, MEPA, CWA, RHA, the MDEQ, MDNR, and state, and the Corps are required to and should do so. Anything short of this reasonable prudent approach breaches the public trust, the GLSLA, MEPA, CWA, and NEPA.

IV. ENBRIDGE’S CHRONIC VIOLATIONS OF THE EASEMENT’S MAXIMUM UNSUPPORTED SPAN PROVISION AND CURRENT 2017 APPLICATION SEEKING ADDITIONAL SUPPORTS IN THE STRAITS

Section A (10) of the easement provides that: “The maximum span or length of pipe unsupported shall not exceed 75 feet.” This specific engineering requirement was critical to ensuring that these heavy steel twin 20-inch underwater pipelines would be adequately supported both to withstand the currents of the Straits and to prevent collapse from gravitational force.

Enbridge has demonstrated a cavalier attitude toward maintaining compliance with the 75-foot maximum unsupported span provision in the easement granted by the state, while making unilateral judgments of the safety of much longer unsupported spans. It would be folly to assume this will change.

Dating back to at least 1963 (see Table 2), sections of Line 5 under the Straits have not had the required support structures demanded by the express terms of the easement, according to Enbridge submissions to the State of Michigan and recently disclosed evidence.⁶⁴ From 1980 through 2000, Enbridge added 13 grout bags, and starting in 2001, Enbridge made a more significant attempt to stabilize this underwater aging pipeline infrastructure with mechanical screw anchors. What we know now from this growing body of evidence is that Enbridge has been violating the easement’s 75-foot maximum unsupported span requirement for decades⁶⁵ and placing the public trust waters and bottomlands at high risk, yet has only recently admitted to violating this easement provision in 2014⁶⁶ and again in 2016⁶⁷ following their bi-annual underwater remote operator vehicle (ROV) inspections.

⁶⁴Michael Rosenfeld, P.E., Kiefner and Associates, Inc., *Assessment of Span Exposures on the 20-inch Petroleum Pipelines Crossing the Straits of Mackinac*, Final Report No. 16-154, October 12, 2016. <http://davidholtz.org/wp-content/uploads/2017/06/Current-Data-Kiefner-Final-Report.pdf>

⁶⁵ Ellison, Garret. “Enbridge was violating Line 5 easement for years, documents show.” MLive.com, June 2, 2017 Available at: http://www.mlive.com/news/index.ssf/2017/06/line_5_unsupported_spans.html [Accessed 28 Jun. 2017].

⁶⁶ Enclosure to June 27, 2014 Letter To Hon. Schuette & Hon. Wyant Responses to Questions and Requests for Information Regarding the Straits Pipelines, Table 2 ROV inspection and span support installation history of Line 5 Straits of Mackinac p. 9 http://mediad.publicbroadcasting.net/p/michigan/files/201410/Attachment_to_Response_letter_State_of_Michigan_Final.pdf

⁶⁷ See Appendix E. Enbridge Letter dated Aug. 11, 2016 to State of Michigan; Enbridge Letter dated Aug. 17, 2016 to State of Michigan; see also, Brush, Mark. “Securing this Enbridge pipeline is one of the most dangerous jobs in the world,” Michigan Radio, Sept. 5, 2014 <http://michiganradio.org/post/securing-enbridge-pipeline-one-most-dangerous-jobs-world>

Table 2 ROV Inspection and Span Support Installation History of Line 5 Straits of Mackinac

Year of ROV Inspection	Follow up Actions (Anchor Support Installation)	Type of Support Installed
1963	None	
1972	None	
1975	3	Grout Bags
1979	None	
1982	None	
1987	7	Grout Bags
1989	None	
1990	None	
1992	6	Grout Bags
1997	None	
2001	8	Grout Bags and mechanical support
2003	16	Mechanical Screw Anchors
2004	16	Mechanical Screw Anchors
2005	14	Mechanical Screw Anchors
2006	12	Mechanical Screw Anchors
2007	None	
2010	7	Mechanical Screw Anchors
2012	17	Mechanical Screw Anchors

As discussed in Sections II and III, above, to circumvent a statutorily required comprehensive review of the pipeline under the GLSLA, Enbridge has mischaracterized its repeated request to install mechanical anchor screws on the lake bed floor as “preventative maintenance.” In fact, though, by 2001, the condition of the unsupported pipeline was so problematic, Enbridge’s permit application described the request as an “emergency.”⁶⁸ By claiming this narrowly defined purpose for decades, Enbridge has evaded comprehensive review of impacts, risks, and feasible and prudent alternatives of its twin pipelines occupying publicly owned waters of the Great Lakes. Contrary to Enbridge’s assertions, these stabilizing

⁶⁸ In 2001 Enbridge, in what it characterized as an “emergency,” applied for a joint MDEQ and Corps permit under the GLSLA and Rivers and Harbors Act (“RHA”)/Clean Water Act (“CWA”) “to provide support underneath our pipelines in sections where the pipeline shows spans unsupported over too great a distance.” See Oil & Water Don’t Mix Campaign letter to Governor Snyder, Attorney General Bill Schuette et al. (July 1, 2014) <http://flowforwater.org/wp-content/uploads/2014/06/2014-07-01-FINAL-Line-5-Governor-Ltr-Sign-On.pdf> (pp. 3-4, Exhibit 4).

anchors along the bottomlands of the Great Lakes are part of Enbridge's overall expansion plan that has enabled this private corporation to expand crude oil transport by 80 percent over original design capacity along the entire 645 miles of Line 5 and to introduce the use of drag reduction technology which was not part of the original part of the pipeline.

New Evidence Highlights Enbridge Intentionally Violated Easement and Engineering Standards, Putting the Structural Integrity at Risk

While the full history of Line 5's support structures is not entirely known, it is clear from publicly available information that Enbridge has struggled to address this chronic engineering issue due in large part to the powerful and unpredictable nature of the currents in the Straits of Mackinac. A review of the 2014 and 2016 ROV inspections underscores this point. Following the completion of 40 new screw anchors in 2014, Enbridge represented to the State of Michigan that its "predictive maintenance model . . . has confirmed that **pipeline spans will not exceed 75 feet.**"⁶⁹ However, in 2016, Enbridge identified 4 more additional span violations including one known as E-39 grew 14 feet from 63 to 77 feet.⁷⁰

Dr. Ed Timm initially documented⁷¹ the nature of the Straits currents in the context of Enbridge's noncompliance on pipeline spans in his August 2016 Technical Note that accompanied FLOW's formal public comments to Enbridge's 2016 GLSLA permit request for 22 anchors. Subsequently, in March 2017, Dr. Timm published another Technical Report titled, "An Investigation into the Effect of Near Bottom Currents on the Structural Stability of Enbridge Line 5 in the Straits of Mackinac,"⁷² in which he included an updated version of his technical note on anchor noncompliance and a new appendix on the pipeline coating condition. In this paper, Dr. Timm documented the longest unsupported span to be 160 feet on the west pipeline and raised grave concerns that the pipeline's unknown history of metal fatigue and stress was not properly evaluated in Enbridge's "fitness for service" determinations. He further concluded that "certain sections of the twinned sections of Line 5 under the Straits may be only one peak current event away from catastrophic failure."⁷³

In the spring of 2017, in response to his request for information from Enbridge, U.S. Senator Gary Peters received a report by the consulting firm Kiefner Associates, dated October 2016, which contains critical engineering and safety information regarding Line 5.⁷⁴ Commissioned by Enbridge as part of its EPA Line 6B Consent Decree, this newly disclosed evidence revealed that the corporation had knowingly violated the easement's 75-foot requirement as well as the original Bechtel recommended maximum safe unsupported span of 140 feet.⁷⁵ It stated: "The 2003 survey identified 7 spans longer than 140 feet in the

⁶⁹ Letter from Enbridge to State of Michigan dated Nov. 19, 2014.

http://www.michigan.gov/documents/deq/Appendix_B.4_493991_7.pdf

⁷⁰ See Appendix E. Enbridge Letter dated Aug. 17, 2016 to State of Michigan.

⁷¹ Timm, Dr. Edward, "Technical Note: Regarding Enbridge Line 5 Non-Compliance with 1953 Requirements, A Mechanistic Analysis of Straits Pipeline Washout Phenomena." Aug. 25, 2016 <http://flowforwater.org/wp-content/uploads/2016/08/FLOW-FINAL-Supplemental-Letter-to-DEQ-USCOE-with-Technical-Note-Dr.-Ed-Timm-08-25-16.pdf>

⁷² Timm, Dr. Edward. "Technical Report: An Investigation into the Effect of Near Bottom Currents on the Structural Stability of Enbridge Line 5 in the Straits of Mackinac," p.47 March 5, 2017. <http://blog.nwf.org/wp-content/blogs.dir/11/files/2017/03/2017-Edward-Timm-Currents-and-Stresses-Report.pdf>

⁷³ *Id.*

⁷⁴ Michael Rosenfeld, P.E., Kiefner and Associates, Inc., *Assessment of Span Exposures on the 20-inch Petroleum Pipelines Crossing the Straits of Mackinac*, Final Report No. 16-154, Oct. 12, 2016.

⁷⁵ "Engineering and Construction Considerations for the Mackinac Pipeline Company's Crossing of the Straits of Mackinac" and "Report on the Structural Analysis of the Subaqueous Crossing of the Mackinac Straits," submitted by Mackinac Pipeline Company/Lakehead Pipeline Company to the Michigan Department of Conservation, Jan., 1953 http://www.michigan.gov/documents/deq/Appendix_A.2_493980_7.pdf This history raises potential federal

east leg, with the longest being 224 feet, and 9 spans longer than 140 feet in the west leg, with the longest being 286 feet (due to a failed grout bag support).”

The Kiefner report elaborates further on the history of noncompliance with the unsupported span requirement. In a 2001 inspection, “scouring effects from water currents caused sections of the pipelines to span freely above the bottom. Several sections were determined to have lengths in excess of the 75-foot limit specified in the original easement...”

Enbridge appears to have decided it can unilaterally choose where it can depart from the 75-foot span requirement. The Kiefner report declares: “A span of 140 feet was established **by Enbridge** (emphasis added) as a criterion for taking corrective action.” Enbridge does not have authority to depart from the terms of the easement, especially in terms of corrective action.

Further, the Kiefner report observed that the original design “observed an allowable stress criterion of 60% of specified minimum yield strength (SMYS), and then adopted an allowable span length for construction of 75 feet corresponding to a stress level of about half this limit. **The current study determined** that a longitudinal tensile stress limit of 80% of SMYS, used for offshore pipelines, was appropriate and safe. **Spans of between 155 and 195 ft. in length (depending on operating temperature conditions) could meet this limit** (emphasis added).” Unless Enbridge is seeking to amend the 75-foot span easement requirement, this is irrelevant. Moreover, excusing noncompliance, especially retroactively, is not Enbridge’s prerogative. The 75-foot unsupported span maximum is binding.

Additional documentation Enbridge submitted to the State of Michigan further confirmed this pattern of noncompliance. An underwater inspection document reveals nearly 250 instances between 2005 and 2016 in which the pipeline exceeded the 75-foot support requirement for more than a decade.⁷⁶

Analyzing the Kiefner report and other substantiating evidence, Dr. Timm has prepared this attached Supplemental Addendum⁷⁷ to his 2016 Technical Note in which he concludes the following:

The overall picture that emerges from this data is that the Straits portions of Line 5 did not comply with the State easement’s requirement of no unsupported spans over 75 feet as constructed in 1953. This situation grew steadily worse for lack of maintenance through 2003 and was not rectified until very recently. More seriously, very long unsupported spans in excess of the recommended elastic limit of 140 feet have commonly occurred and some spans grew to such lengths that the pipe was plastically deformed by both the forces of gravity and currents until it either went into catenary mode or the sagging of the pipe was arrested by touching down on the lakebed. Some implications of these conclusions were reported by Timm³ before the data

violations under C.F.R. 195.402(b), which states: “Whenever an operator discovers any adverse condition that could affect the safe operation of its pipeline system, it shall correct it within a reasonable time.” While “reasonable” is subject to interpretation, it is striking that Enbridge did not notify DOT’s Pipeline Hazardous Safety Materials Administration (“PHSMA”) or the State of Michigan back in 2003 about the overall structural concerns and chart out a comprehensive plan to assess the risks, impacts, and alternatives of the entire pipeline infrastructure.

⁷⁶ See Appendix E. Breen, Arielle. “Enbridge document shows years of noncompliance for pipeline supports.” June 1, 2017, *Petoskey News-Review*. http://www.petoskeynews.com/featured-pnr/enbridge-document-shows-years-of-noncompliance-for-pipeline-supports/article_6b049396-b971-52e4-a9ba-b6c67be839fa.html; Ellison, Garret. “Enbridge was violating Line 5 easement for years, documents show.” MLive.com, June 2, 2017 Available at: http://www.mlive.com/news/index.ssf/2017/06/line_5_unsupported_spans.html [Accessed 28 Jun. 2017].

⁷⁷ Appendix E. Timm, Dr. Edward. Supplemental Addendum to Technical Note: Regarding Enbridge Line 5 Non-Compliance with 1953 Easement Requirements: A Mechanistic Analysis of Straits Pipeline Washout Phenomena. June 18, 2017; see also Timm, Dr. Ed. Presentation: Enbridge Energy Partners, LLP, Straits Sections of Line 5 Summary Technology Update, June 6, 2017.

revealed in the Kiefner report were known and the possibility of metal fatigue caused by the combined forces of gravity and the bi-directional currents that flow through the Straits is made much more likely by the extreme unsupported spans revealed in the Kiefner report.⁷⁸

Another issue raised by Dr. Timm and confirmed by the Kiefner report is the strength of underwater currents and their impact on the pipeline. The Kiefner report notes testing in 2002 and 2004 showed maximum absolute velocities were 4 to 5 times the average, up to 2.75 ft/sec. It then acknowledges, “As current velocity increases the VIV-allowable span length decreases. The allowable span length established on this basis decreases to less than the 140 ft. span length established on the basis of static analysis at current velocities of 2.3 ft/sec or greater.”

The report characterizes the maximum as extremely infrequent. But as Dr. Timm notes in his June 2017 Supplemental Addendum to his Technical Note, “It is much more probable that the extreme current events associated with extreme weather events in the Great Lakes basin documented in the Timm report and dismissed by the author of the Kiefner report as ‘rare and infrequent,’ are the main factor posing a threat to the long-term structural integrity of Line 5 under the Straits. In general, structures are far more likely to be damaged by weather extremes than average conditions...”⁷⁹ In sum, Dr. Timm concludes the following: (1) currents stronger than the Line 5 design basis and the previously unrevealed long, unsupported spans may have seriously fatigued the metal in the pipe; (2) the Straits sections of Line 5 cannot be considered fit for service until this subject has been thoroughly considered by experts in underwater pipeline integrity; and (3) consideration should be given to requiring shutdown and inspection of the pipe following an extreme current event in the Straits or any other event suspected of affecting the integrity of the pipeline.

Enbridge has assured the state that the maximum clearance between Line 5 and the lake bottom is 4 ft. But Kiefner says, “Where the span clearance above the Straits bottom is large (for example 15 ft or more), grout bags may not be an optimal choice because it will be necessary to lay them in a tiered stack (pyramid fashion) for long-term stability resulting in a large number of bags to be placed.” This implies clearances greater than and much more risky than Enbridge has acknowledged.

Finally, Dr. Timm observes in his Supplemental Addendum that Enbridge’s current permit application seeks to stabilize a vulnerable section on the West pipeline with five bends and two ovaled areas identified by numerous Enbridge in-line inspections (“ILI”) data runs. Enbridge’s 2013 GeoPig Geometry Inspection Report⁸⁰ confirms that these bends and ovaled pipewall anomalies are located in the same proposed anchoring locations of W11a through W11e. Given the lack of information on the damaged condition of this stretch of the West pipeline, Dr. Timm concludes: “It is recommended that a full examination of the circumstances leading to the observed damage on the West Leg of Line 5 be conducted before granting permission to place these anchors.” Accordingly, the State of Michigan should

78 Id. emphasis added.

79 Recently, the Great Lakes science community has begun examining in detail the frequency and impact of meteotsunamis in the Lakes. According to the National Weather Service, meteotsunamis “have characteristics similar to earthquake-generated tsunamis, but they are caused by air pressure disturbances often associated with fast moving weather systems, such as squall lines.” The pressure on the lake during an intense storm may be only one or two inches, but at the other end of the lake, the propagating wave might be up to 5 feet in height, enough to overturn boats or sweep away those on the shore. The National Weather Service notes that one meteotsunami on June 26, 1954, when a 10-foot wave struck the shoreline near Chicago, Illinois, swept people off piers, killing seven. Bradley Cardinale, director of the University of Michigan’s Cooperative Institute for Great Lakes Research, said meteotsunamis occur about 106 times a year on the Great Lakes. This information needs to be weighed in considering the rarity and impact of high current velocities.

80 See Appendix E. Enbridge 2013 Geopig Geometry Inspection Report, July 30, 2013.

demand a full disclosure of all known information about the condition of this stretch of pipeline before any further action.

In sum, a review of Enbridge's permitting history demonstrates that the company was fully aware of its planned major expansion of crude oil pipeline transport in Michigan, and that Enbridge has circumvented full review under the GLSLA and public trust by characterizing these new support structures and its expanded use of Line 5 as mere "maintenance." In reviewing Enbridge's permit applications (past and present) for these new structures and expanded use, the MDEQ must require Enbridge to complete a GLSLA application for Line 5, with public notice, hearings, full and careful review, and due findings and determinations regarding impacts and alternatives in compliance with the statute and public trust law. Moreover, the applicant has not submitted the required approvals or consent from both local units of governments and adjacent landowners as required by MCL 325.32504(2). If Enbridge does not satisfy these requirements, the application is not administratively complete for proper review and decision, and accordingly, MDEQ cannot authorize or approve the application.

V. CONCLUSION AND REQUESTED TEMPORARY AND PERMANENT MEASURES AND ACTION

Based on the above, Enbridge's current application must be denied or determined to be administratively complete, and the DEQ should impose emergency or temporary conditions authorized under Section 32504(2) of the GLSLA and its Rules.⁸¹

1. It is understood that the current unlawful capacity of 540,000 bpd creates a substantial risk of grave harm, especially with respect to the 22 additional anchor supports required for Line 5 to even operate at this capacity. Because Enbridge has failed to disclose for nearly two-decades critical and dangerous span violations of its Easement, the twin pipelines in the Straits have been compromised and carry an unacceptable level of high risk or endangerment. While the DEQ has in the past allowed additional anchor supports, such action is no longer prudent. The only prudent temporary measure for these aged, failing, and compromised pipelines is to halt the transport or crude oil pending further proceedings under the GLSLA; in the alternative, because the anchor supports along with anti-friction devices and other upgrades to Line 5 are directly related to the expansion of the flow rate/volume of crude oil primarily to Canada to 540,000 bpd, DEQ should impose an immediate condition that reduces the flow rate to the historical 300,000 bpd pending further proceedings.
2. The DEQ should also set this matter for public hearing once the application is complete or adequate to proceed as required by the GLSLA, its Rules, and MEPA. Section 32514 and Rule 1017 grant the DEQ to notice and set the matter for public hearing; GLSLA Rule 1017 encourages public hearings where the "project appears to be controversial" and "where additional information is required" before action can be taken by the department. Given the seriousness of the risk, level of harm, government and public attention, community resolutions and involvement, and citizen and organization involvement in this matter, a public hearing is necessary and in the public interest. Once the public hearing is scheduled, the DEQ should notice and extend and/or set a new and adequate time period for public comment before and for a period of time after the public hearing.
3. The DEQ must determine that the true and intended purpose or project purpose of the anchors that form the subject matter of this application is part of Enbridge's massive expansion of crude oil transport through Line 5 and Line 6b in Michigan.
4. The DEQ must reject the narrow, segmented, and piecemeal applications by Enbridge for

⁸¹ MCL 324.32504(2); R 299.1101.

upgrades and improvements to Line 5 and Line 6b that were calculated to narrow and avoid the demonstration, review, and determinations of potential adverse effects and impacts or impairment of air, water, natural resources, public trust, and public and private property and health, and require Enbridge to submit a comprehensive assessment of these potential effects and likely impacts in compliance with the GLSLA, its rules, and the MEPA;

5. The DEQ must reject the narrow, segmented, and piecemeal applications by Enbridge for upgrades and improvements to Line 5 and Line 6b that were calculated to narrow and avoid the demonstration, review, and determinations that there exist no alternatives to the expansion of capacity and continued use of Line 5 in the Straits or near the Great Lakes, inland lakes and streams, and community water supplies or sources;
6. The DEQ should as a result of its public trust powers and duties inherent in the 1953 "Easement," Enbridge's covenant of prudence to protect public and private property from injury and prevent harm to the public health and safety, and because of the substantial endangerment and high level of risk of a failure and catastrophic harm from a release, rupture, or leak from Line 5, revoke, terminate or modify the 1953 "Easement" to remove the transport of crude oil through Line 5 in the Straits of Mackinac. If Enbridge wants to use the Straits of Mackinac or the Great Lakes for crude oil pipeline transport, the company must apply for a new conveyance or occupancy agreement consistent with procedural and substantive requirements of the GLSLA, the public trust standards of the GLSLA and common law, and the MEPA, and with other federal, state, and local laws and ordinances.

Further, both the MDEQ and the U.S. Army Corps of Engineers are requested to exercise their full legal authority to review the overall Enbridge project purpose, not just the "toe nails" of the elephant in the room. Such a review demands both the state and federal agencies to conduct a full and comprehensive environmental impact statement and alternatives assessment under Michigan law, as described above, and federal law, as required by NEPA Section 102(2)(C) and its guidelines. It is time Enbridge's actions to evade this review are stopped and set aside.

Finally, this case presents a high risk of substantial likely impairment and safety concerns about the integrity of Enbridge's twin underwater pipelines, as well as the mandatory state legal duties to protect health, safety, and welfare; these dual goals are not inconsistent and therefore warrant interim or temporary conditional measures to be ordered, including shutting down temporarily the transport of oil in Line 5. In fact, it would be prudent to do so given the established high and unacceptable risk of harm to the Great Lakes and economy endangered by condition of and nearly doubled capacity and flow rates in Line 5, and available alternatives, including the doubled capacity to 800,000 bpd in the new Line 6B.

FLOW appreciates the effort moving forward to comply with these laws and the public trust duties and principles that apply. Should you want to discuss further or have any questions, we are willing to meet with you at your earliest convenience. Thank you.

Sincerely yours,



James M. Olson
President



Elizabeth R. Kirkwood
Executive Director

CC: Charles Simon, Chief, Regulatory Office, Corps Detroit District
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U.S. Senator and Hon. Gary Peters
U.S. Senator and Hon. Debbie Stabenow