



KEY FACTS: Line 5 & the Proposed Oil Tunnel

FLOW's Key Facts on Line 5 & the Proposed Oil Tunnel

The State of Michigan has reached a tipping point with the decaying Enbridge Line 5 oil pipelines in the Straits of Mackinac and a proposed oil tunnel to replace them. For the first time in a decade, the State of Michigan is taking its responsibility seriously to bring this issue under the rule of law and protect the Great Lakes, drinking water, and the Pure Michigan economy.

Here's a quick list of facts you can use to help tip the balance in favor of shutting down Line 5 and turning back the proposed oil tunnel:

Line 5's risk to the Great Lakes and drinking water:

- Nearly 23 million gallons of oil and natural gas liquids pass every day through "Line 5," a pair of aging pipelines piercing the heart of the Great Lakes just west of the Mackinac Bridge.
- Built in 1953, the 20-inch-diameter Line 5 pipelines owned by Canadian company Enbridge Energy Partners cross in fierce currents along the publicly owned lakebed of the Straits of Mackinac.
- An [anchor strike](#) on April 1, 2018, damaged the Line 5 oil pipelines in the Straits of Mackinac, including a gash across the east pipeline and several dents, exposed steel, and scrapes on the west pipeline. The longest dent was nearly two-feet long.
- The Straits of Mackinac are the "[worst possible place](#)" for a Great Lakes oil spill, [threatening over 700 miles](#) of Lakes Michigan and Huron coastline, according to the University of Michigan.

Line 5 is 67 years old and decaying:

- Line 5's original [design is failing](#) due to scouring beneath the twin pipelines by strong currents in the Straits of Mackinac.
- To shore up Line 5, Enbridge changed the design in 2001, when it began installing what is now over 200 anchor supports drilled into public bottomlands, with over 3 miles of pipeline suspended in the water and currents. Enbridge has never requested or obtained an evaluation of risk or authorization for this near-total change in design under the Great Lakes Submerged Lands Act (GLSLA).
- Enbridge's own inspection data reveal that sections of Line 5 in the Straits are [cracked, dented, and encrusted](#) with corrosion-causing mussels, and that a segment on land has [lost 26 percent of its original wall thickness](#) due to corrosion.
- In 2017, [Enbridge admitted misleading Michigan and federal officials on Line 5's condition](#) for over three years, concealing dozens of bare metal spots and/or coating gaps near 128 anchor locations.

Line 5 benefits Canada, not Michigan:

- No more than [5-10 percent](#) of the light crude oil carried by Line 5 is destined for the Detroit and two Toledo refineries; the remaining 90-95 percent reaches refineries in Sarnia, Ontario, or is exported to overseas markets, FLOW technical experts concluded based on the available data.

Economic impact of a Line 5 oil spill:

- A Line 5 oil spill could deliver a more-than [\\$6 billion blow](#) in economic impacts and natural resource damages to Michigan's economy and could trigger a domino effect of damage disrupting Great Lakes commercial shipping and steel production, slashing jobs, and [shrinking the nation's](#)

[Gross Domestic Product by \\$45 billion](#) after just 15 days, according to a study commissioned by FLOW and conducted by ecological economist Robert Richardson of Michigan State University.

- Enbridge [lacks adequate liability insurance](#), according to a recent [report](#) released by the Attorney General's office reveals that Enbridge's subsidiaries, not its parent company, hold Line 5's [1953 easement](#) and signed the proposed tunnel agreement; the assets of the subsidiaries' parent Enbridge are inadequate to cover the costs and economic damages in the event of a moderate spill.

Enbridge is operating Line 5 illegally:

- **Enbridge, according to FLOW's research, is [violating its 1953 easement](#)** conditionally granted by the State of Michigan to allow Line 5's occupancy of public waters and bottomlands in the Straits of Mackinac. Enbridge [lacks adequate liability insurance](#) and is failing to comply with standards related to prudent operation, pipeline design and condition, cleanup planning, and risk of pollution, impairment, or destruction of the environment.
- **The Michigan Department of Natural Resources, as directed by Gov. Whitmer, is reviewing compliance by Enbridge with the Line 5 easement and [recently requested extensive Line 5 records](#)** from Enbridge.
- **Enbridge's Line 5 violates the public's legally enforceable public trust rights** to fish, boat, swim, navigate, and bathe in, and drink and draw sustenance from, the Great Lakes.
- **As Michigan's top leader and public trustee, Gov. Gretchen Whitmer has express legal authority** to revoke the easement to start decommissioning Line 5 to protect the Great Lakes.
- **Enbridge should be required to obtain authorization under the GLSLA for the total change in design** of the existing Line 5 pipelines on the lakebed of the Straits with more than 200 anchor supports to shore up the pipelines, from Gov. Whitmer and the Michigan Department of Environment, Great Lakes, and Energy (EGLE).
- **Enbridge should be required to obtain authorization to locate the proposed oil tunnel** in the soils beneath the Straits under the GLSLA and public trust laws, from Gov. Whitmer and EGLE.

Enbridge's failed track record:

- **[Line 5 has failed at least 33 times](#) since 1968**, spilling more than 1.1 million gallons of oil across Michigan and Wisconsin.
- **Enbridge caused one of the nation's largest inland oil spills in July 2010** when its Line 6B pipeline burst near Marshall, Michigan, and for 17 hours [dumped 1.2 million gallons](#) of heavy tar sands oil into the Kalamazoo River watershed. It took four years and over \$1.2 billion to clean it up to the extent possible. Line 6B was 41 years old when it failed; Line 5 is 67 years old and counting.
- **Enbridge's Line 6B oil spill disaster was** "made possible by [pervasive organizational failures](#) at Enbridge," and caused by corrosion fatigue cracks and a prolonged 17-hour spill -- "the single most expensive on-shore spill in U.S. history," according to the National Safety Transportation Board.
- **Enbridge's pipeline network had 1,364 failures that spilled 9.8 million gallons of oil from 1996-2018** – an average of 62 spills and 445,000 gallons of oil spilled per year. That's more than one oil spill every week for 18 consecutive years.

Line 5 threatens thousands of jobs:

- **Enbridge's workforce includes less than 100 Michigan-based permanent and temporary employees and provisioned contractors, while about 800,000 Michigan jobs** are tied in some way to the clean water of the Great Lakes. In total, [more than 1.5 million U.S. jobs](#) are directly connected to the Great Lakes, generating \$62 billion in wages tied to up-north tourism, agriculture, fishing, shipping and related industries, according to Michigan Sea Grant.

Enbridge cannot clean up a Line 5 oil spill in water:

- **Enbridge lacks a credible worst-case scenario [emergency response plan](#)** to recover oil.
- **Enbridge lacks a credible plan to recover spilled oil** when ice tops the Mackinac Straits. U.S. Coast Guard officials cannot respond when it is windy, wavy (over three feet), icy, or dark.
- **Only 30% of an oil spill would be recovered under the best conditions**, according to Enbridge's cleanup contractor.
- **[Enbridge is not working to protect Michigan waters](#)**, contrary to its deceptive advertising campaign.

Propane supply alternative to Line 5:

- **Just 1-2 propane rail cars or 4-5 tanker trucks a day could replace the aging Line 5 pipeline's [U.P. propane capacity](#)** without risking a Great Lakes oil spill, FLOW's latest research shows. The rail cars or tanker trucks could deliver propane from Superior, Wisconsin, to the existing propane storage-and-distribution center in Rapid River, Michigan, north of Escanaba on U.S. 2.
- **Plains All American could increase the capacity of its propane storage facility at Kincheloe**, in the eastern U.P, which is served by rail and not Line 5. The energy distribution network is highly adaptable such that Enbridge does not have a monopoly on propane delivery to U.P. distributors.
- **Shutting down Line 5 would [add just five cents](#) to the cost of a gallon of propane**, which has hovered around \$2 for the past year, according to a 2018 study by London Economics International LLC, a Boston-based consultancy, and commissioned by the National Wildlife Federation.
- **Gov. Whitmer has formed an [Upper Peninsula Energy Task Force](#)** to identify energy supply options, specifically including propane in the event that Line 5 is shut down. The system can adjust with smart planning.

Oil supply alternative Line 5:

- **[Available capacity and flexibility](#) to meet energy demand in the Great Lakes region already exists** in the North American energy pipeline system operated by Enbridge and its competitors without threatening our public waters and *Pure Michigan* economy, according to FLOW's experts.
- **A Line 5 shutdown could increase the cost of gasoline in metro Detroit by [about 2 cents a gallon](#)**, according to a 2017 study commissioned by the former Snyder administration.

A Line 5 oil tunnel is not the best alternative for Michigan:

- **The Line 5 oil pipelines in the Straits would continue to decay** and threaten the Great Lakes and Pure Michigan economy, while Enbridge takes 5-10 years to study, seek permits, and build an oil tunnel. Enbridge's recent [drill-rig accident](#) while taking rock and soil samples in the Straits shows the risk of operating below the Straits and trusting Enbridge, which [delayed required reporting](#) of the mishap and [downplayed its scale](#).
- **A tunnel fails to address Line 5's immediate threat to the Great Lakes** and the risk posed by the pipeline's more than 400 stream and river crossings in the Upper and Lower Peninsulas.
- **Enbridge's proposal to allow electrical lines and other infrastructure to share the proposed oil pipeline tunnel** is a [bad idea](#) opposed by a U.P. electrical supplier and poses an [explosion risk](#).
- **Climate change and related impacts to the Great Lakes would worsen** from an oil tunnel under the Straits transporting fossil fuels for the next 99 years.
- **An oil tunnel would not create long-term sustainable Michigan jobs.** Michigan labor likely would not build a tunnel; it would require international trade skills, machinery, and materials. There is more labor work to be done in any given Michigan community in replacing lead pipes for safe drinking water than would materialize for a Line 5 tunnel.

Bottom line on Line 5:

- **Line 5 is not vital to the people of Michigan.**
- **It is time for the state to evict Enbridge from the Straits of Mackinac and shut down Line 5 due to the danger its decaying oil pipelines pose to the Great Lakes.**

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