

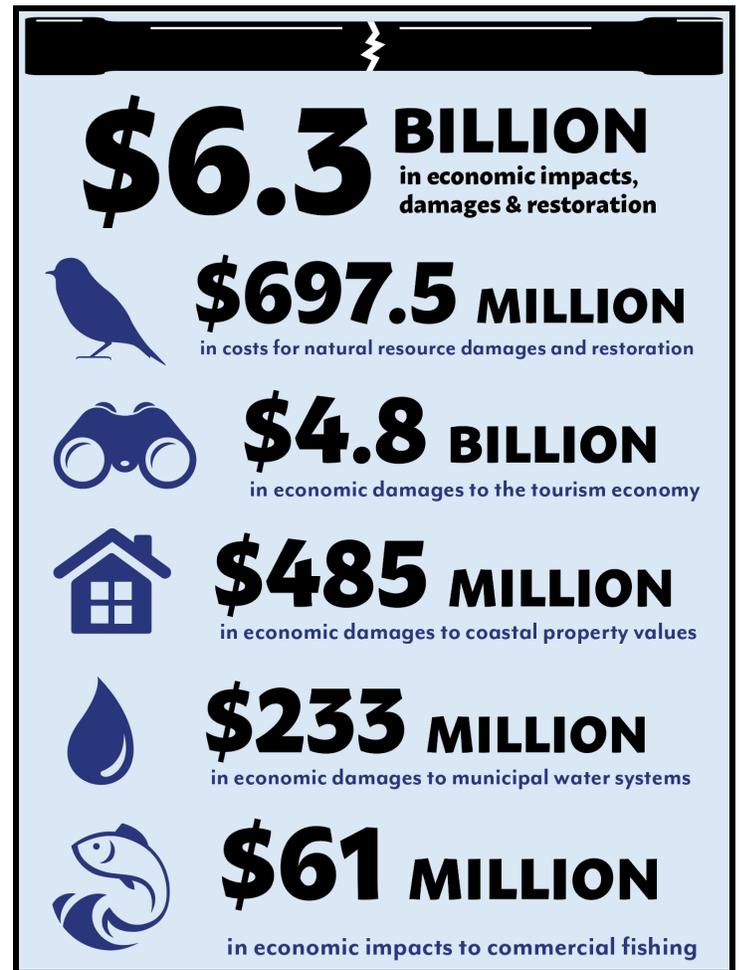
Oil Spill Economics

A major spill from Line 5 in the Straits of Mackinac could deliver a \$6 billion blow to natural resources, public water systems, fisheries, coastline properties, and the tourist-driven economy, according to a 2018 study commissioned by FLOW.

Conducted by nationally respected ecological economist Dr. Robert Richardson & dual-PhD candidate Nathan Brugnone of Michigan State University, the study calculates potential costs of a Line 5 spill into the Straits of Mackinac and adjoining waters under a realistic, but not worst-case, scenario.

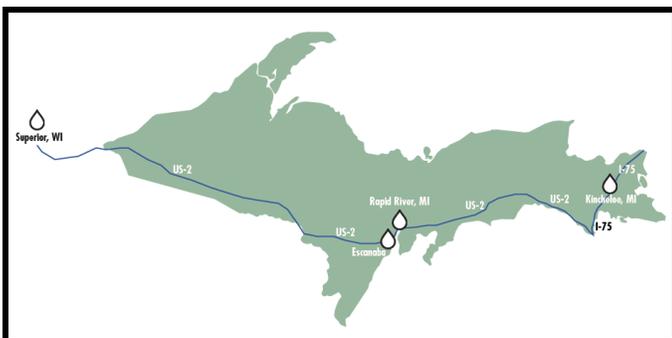
This Economic Impact Report:

- Is based on a hypothetical scenario involving a major spill of ~59,000 barrels of crude oil.
- Assumes the spill would take place under ice-free conditions favorable to response.
- Does not depict a worst-case spill or estimate Canadian impacts.



flowforwater.org/line-5-economic-report

Demystifying the UP Propane Question



Map courtesy of FreeVectorMaps.com

18% of citizens in the Upper Peninsula heat their homes with propane. Of these ~55,000 people, 35-50% rely on propane that passes through Line 5.

Alternative transportation is a viable option. FLOW experts estimate the amount of propane lost from decommissioning Line 5 would easily be replaced with one railcar, or 3-4 truckloads delivered daily, or, as suggested by the 2017 Dynamic Risk Report, a new 4-inch pipeline suggested.

A recent study done by London Economics International LLC, commissioned by the National Wildlife Federation, found that propane shortages in the Upper Peninsula are "unlikely, even if Enbridge Line 5 ceased to operate." The study found that propane supply outweighs demand and that the increase in price associated with alternative transportation will be approximately \$0.05/gallon.

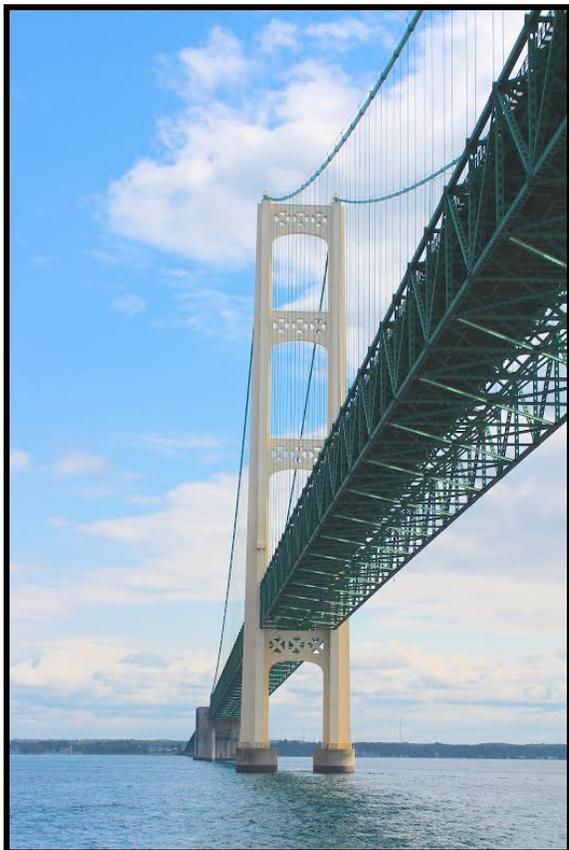


Photo credit: Nancy May

Recent Timeline of Events

October 2017 - Enbridge admitted to misleading both Michigan and federal officials on the condition of Line 5 for over three years, concealing dozens of bare metal spots and/or coating gaps near 128 anchor locations.

November 2017 - Governor Snyder cut a backroom deal with Enbridge, bypassing his own advisory board & state law to expedite a study analyzing a tunnel under the Straits as a replacement route for Line 5. This could lock Michigan into another 60+ years of serving as a high-risk, underwater shortcut for Canadian oil.

April 1, 2018 - A tugboat dragged its anchor through the Straits of Mackinac, rupturing underwater electric lines and dented Line 5 in three locations. It took 24 hours to report the leak to the Coast Guard. The damaged electric cables leaked at least 600 gallons of pollutants into the Straits that were never recovered.

June 2018 Enbridge Studies - These studies only explored multiple tunneling options favoring continued operation of Line 5, including covering the existing Line 5 infrastructure with rocks. The alternatives fail to reduce the current risk Line 5 poses to the Great Lakes and revealed that there are 400 total Line 5 water crossings in Michigan.

July 2018 State Risk Report - While the report presents conservative economic damage numbers (\$1.8B), it affirms that Line 5 poses an unacceptable risk given the magnitude of harm to the Great Lakes, economy, and *Pure Michigan* way of life. Moreover, alternatives exist - that don't endanger 20% of world's fresh surface water from a catastrophic oil spill.

September 2018 - The Governor and Enbridge are expected to lock in a final agreement with Enbridge on a tunnel or trench replacement for Line 5 without considering other prudent and feasible alternatives, as required by state law, as FLOW's legal team has shown.

What's Next?

Looking forward, FLOW forecasts three possible fates for Line 5, depending on Michigan's future leadership.

1. The State takes legal action by **revoking the 1953 easement**.
2. The State enters into a **new agreement with Enbridge**, authorizing the proposed tunnel projects, and the replacement of Line 5 to enable tar sands transportation.
3. There is a **catastrophic oil spill**.

FLOW will continue to gather & share the scientific and legal facts to empower the citizen-led campaign fighting for the health of the Great Lakes and the public trust rights of citizens to fish, recreate, navigate, and drink from the world's greatest collection of fresh surface water.

To learn more, visit:
FLOWforWater.org/Line5

Contact FLOW:
231.944.1568 | info@flowforwater.org