



**Protecting Public Water
& Public Health**
Presentation to Benzie Sunrise Rotary
July 12, 2022

Kelly Thayer, Deputy Director

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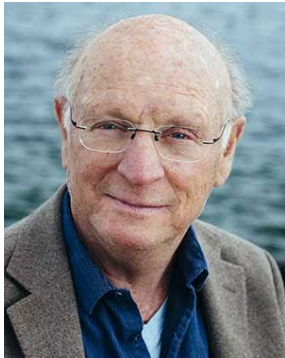
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FLOW's Leadership



Liz Kirkwood, Executive Director

Liz Kirkwood oversees FLOW's policy, legal, technical, and communications work. After working as an environmental lawyer in both the U.S. and overseas, she is now rooted in the nonprofit sector because she is mission-driven and passionate about protecting the Great Lakes.



Jim Olson, Founder & Legal Advisor

Jim Olson has over 45 years of experience as an environmental, water, and public interest law advocate and champion, dedicated to protecting waters and ecosystems in the Great Lakes Basin.

About FLOW (For Love of Water)

- **Organization:** Great Lakes law and policy center based in Traverse City. Independent nonprofit. Founded in 2011.
- **Mission:** Ensuring the waters of the Great Lakes Basin are healthy, public, and protected for all. Uphold the public trust.





Groundwater: The Sixth Great Lake

FLOW



Building Consensus

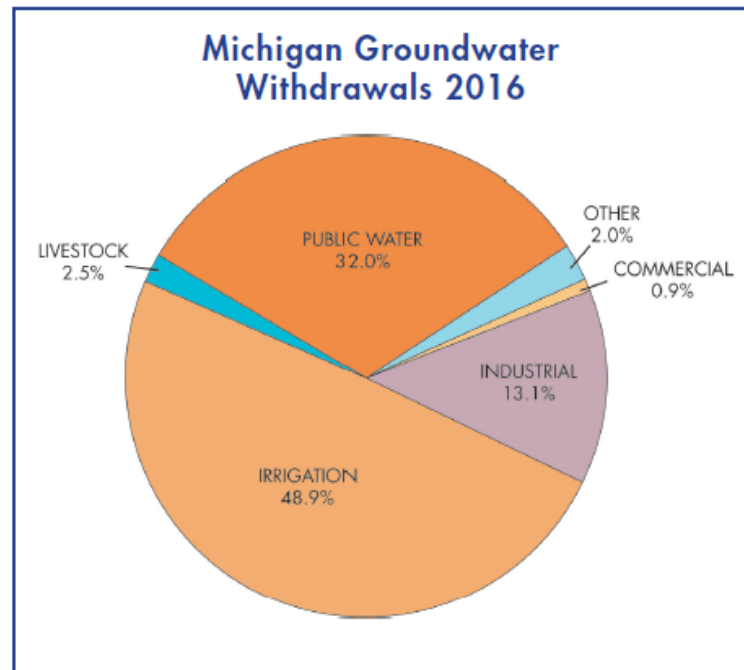
Securing Protection of Michigan's Groundwater

FLOW
FOR LOVE OF WATER
JUNE 2022



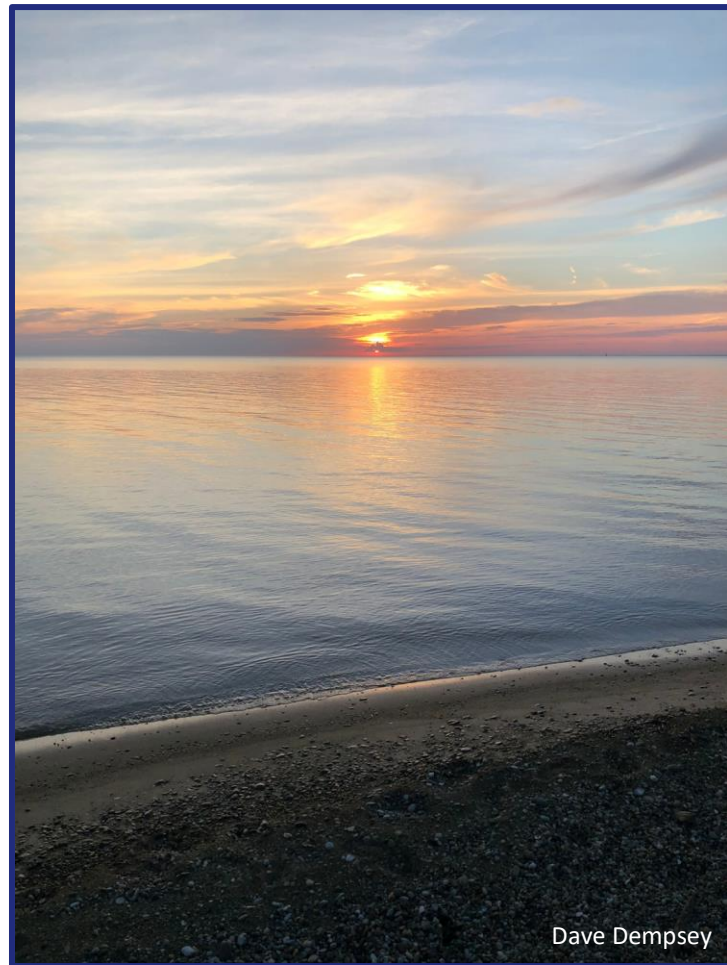
A Report on the Proceedings and Recommendations
of the Michigan Groundwater Table

- There is about as much groundwater in the Great Lakes watershed as in Lake Huron.
- About 45% of Michiganders rely on groundwater for their drinking water.
- Michigan has the most private water wells of any state (1.25 million).
- About 25% of the water in the Great Lakes originates from groundwater.



Source: MSU Extension
(http://msue.anr.msu.edu/resources/water_withdrawals_and_water_use_in_michigan_wq62)

- Michigan is the only state in the nation without a uniform septic code -- at least 130,000 leaking septic tanks statewide.
- 3,000 groundwater sites are permanently condemned, state law bars further use.
- 6,000 orphan contamination sites lack funding for cleanup
- Contaminated groundwater is flowing into lakes & streams in at least 1,100 locations.



Dave Dempsey

SOURCES OF GROUNDWATER CONTAMINATION

Urban runoff



Agricultural runoff
(Nitrate contamination)



Legacy contamination
(closed sites)



Abandoned wells



Fracking



Leaking under-
ground storage
tanks, landfills



Failing septic
systems



Chemical
contamination
(eg. PFAS & TCE)

Clean Water for All

Water is a Human Right and Even More Vital during the COVID-19 Pandemic

FLOW and our allies are working to research, analyze, and advance funding and financing solutions to address Michigan's pressing water needs equitably and with the involvement of those people and communities most deeply impacted.

Michigan faces a water infrastructure funding gap—a need exceeding available resources—of approximately \$800 million per year to properly manage wastewater, drinking water, and stormwater. Closing this funding gap is imperative if Michigan is to continue meeting its responsibility to promote public health, protect the environment, and prevent household water shutoffs.



Michigan's Water Infrastructure Crisis

Drinking Water

- 1,390 community water systems supply 75%
- Most systems built 50-100 years ago
- 10-50% of systems have leaks

Septic Systems

- 1.3 million systems
- Serve 30% of residents
- 10-25% of all systems leaking
- Only U.S. state without a uniform septic code

Private Wells

- 1.25M wells (more than any other state)
- Groundwater and wellhead protection are critical

Declining Federal Investment in Water Infrastructure

FEDERAL INVESTMENT IN WATER INFRASTRUCTURE



*Dollar amount represents per capita spending on water infrastructure

**Data taken from the Congressional Budget Office, 2015

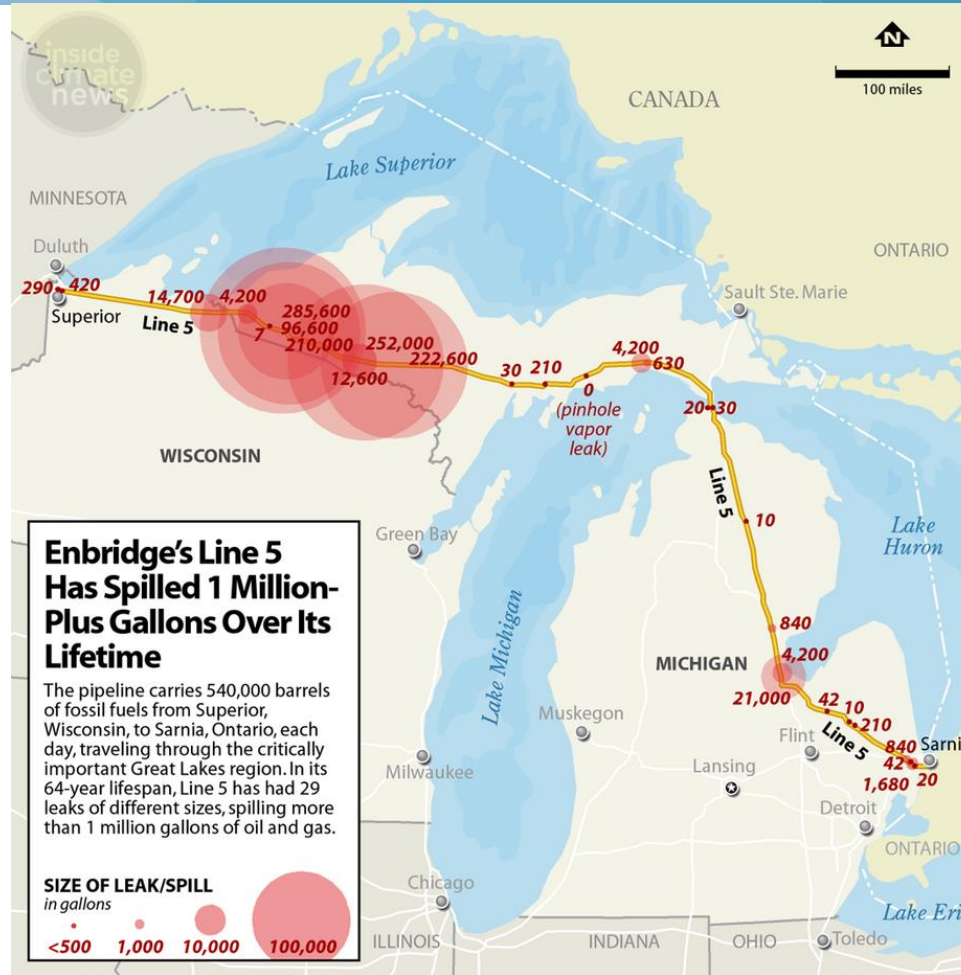
Line 5 Underwater in the Straits of Mackinac

Mackinaw City

Line 5 oil Pipelines

St. Ignace in U.P.

Line 5 has spilled over 1.1M gallons over past 50 yrs



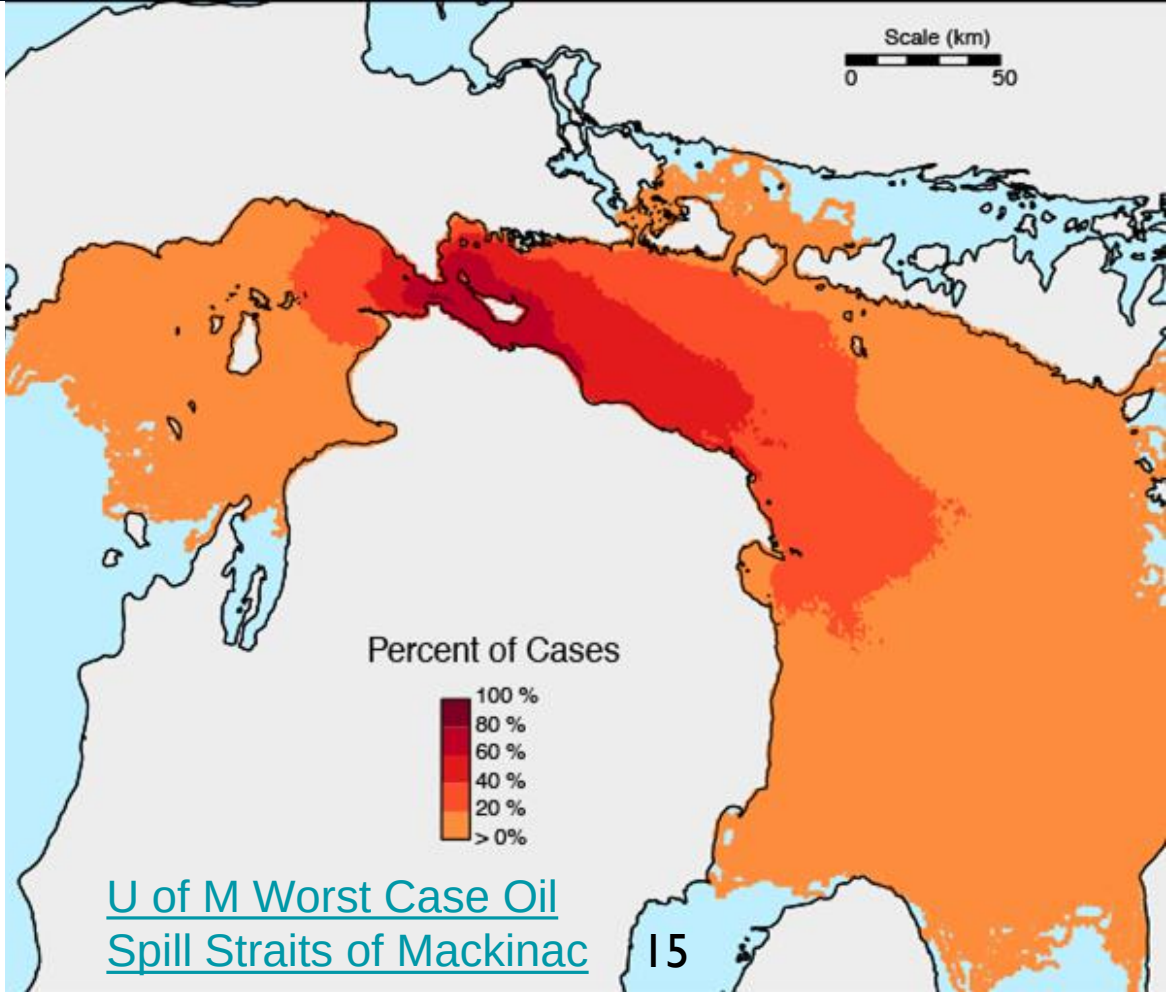
- 1.1 M gallons of oil with 33 incidents since 1968
- Majority of spills detected by humans – not Enbridge's leak detection systems



Statistical Analysis of Straits of Mackinac Line 5: Worst Case Spill Scenarios

UNIVERSITY OF MICHIGAN, ANN ARBOR

DAVID J. SCHWAB, PH.D
MARCH 2016



Enbridge Line 6B -- 2010 Spill into Kalamazoo River



Enbridge Line 6B -- 2010 Spill into Kalamazoo River



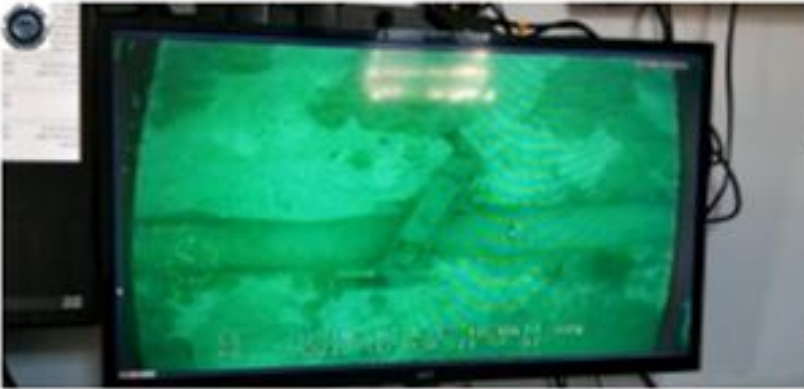


Photo credit: Enbridge Energy

[Enbridge allowed to reopen portion of damaged Line 5 in Straits of Mackinac, judge rules](#)



Whitmer orders Enbridge Line 5 shutdown, citing easement violations

INSERT HERE



November 13, 2020



[Kelly House, Jonathan Oosting](#)



[Michigan Environment Watch](#)

[Enbridge, Gov. Gretchen Whitmer](#)

Whitmer moves to close Line 5 pipeline

Michigan Gov. Gretchen Whitmer has ordered the shutdown of the dual-span Line 5 pipeline, which crosses the Straits of Mackinac as it transports petroleum products from Wisconsin to Ontario. Tunnel opponents have long called for a shutdown, warning that a rupture would cause a catastrophic oil spill in the straits.

Upholding the Public Trust in the Great Lakes

- November 2020 - the State revoked and terminated Enbridge's 1953 Easement
- Based on Public Trust Doctrine - Great Lakes waters and bottomlands belong to the public
- Line 5 presents and imminent risk of catastrophic harm
- Enbridge refused to shut down the line -- instead filed a federal court action attacking state sovereignty and title in the Great Lakes.

Unacceptable Risk and Catastrophic Harm to Health, Waters, Economy, and Environment

- The 2018 Risk Analysis - conservative damage estimate of \$1.8 to 2 billion
- MSU Damage Analysis - \$6 billion
- Updated MSU Analysis - Two-week shut down of Soo Locks: \$45 billion
- Affirms that Line 5 presents an unacceptable risk to the Great Lakes, economy, and *Pure Michigan* way of life

Legal Actions

- ***Nessel v. Enbridge***
Filed June 27, 2019
(State seeks remand to state ct.)
- ***Enbridge v Gov. Whitmer, & DNR Dir. Eichinger***
Filed November 24, 2020
(Gov. seeks dismissal; Enbridge seeks summary judgment)



Enbridge Proposes an Oil Tunnel in the Straits

April 2020

- Enbridge is proposing to bore and blast a 21-foot diameter tunnel under the Straits of Mackinac to house a new Line 5 pipeline,
- Tunnel construction would foul the Great Lakes & its operation would pose an explosion risk, experts in geology and engineering say.
- Each year, its fossil fuel contents when burned will release climate pollution each year equivalent to nearly seven new coal-fired power plants.



The Latest on Line 5: *Key Pathways to Protect the Great Lakes from an Oil Spill Disaster*

**July 28, 2022, Webinar
11:00a-12:15p EDT**

Photo by Beth Price

➤ Register at www.ForLoveOfWater.org



Thank You

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