



## How Much Water Passing through the Straits of Mackinac Can Michiganders Risk: Enbridge Line 5 Stated Useful Life Expired in 2003



Thank you for navigating football traffic to be here to discuss Michigan Waters. We have two speakers.

Our State Representative Yousef Rabhi is working on groundwater legislation and has also been advocating to protect our Great Lakes.

Becky Roy, a First Nation Water Caretaker from the Manitoulin Islands of Lake Huron and Lansing resident returned from Standing Rock with a way to advocate for water in Michigan. She and other Indigenous People are coalescing around the dangers of Line 5 as template for widespread and coordinated work addressing all pipelines and other threats to Water of the Great Lake Basin.

I also want to thank many contributors who made their work available on the web:

scientists: David Schwab and Edward Timms;

water advocates: FLOW, Oil and Water Don't Mix, Watershed Councils, and others;

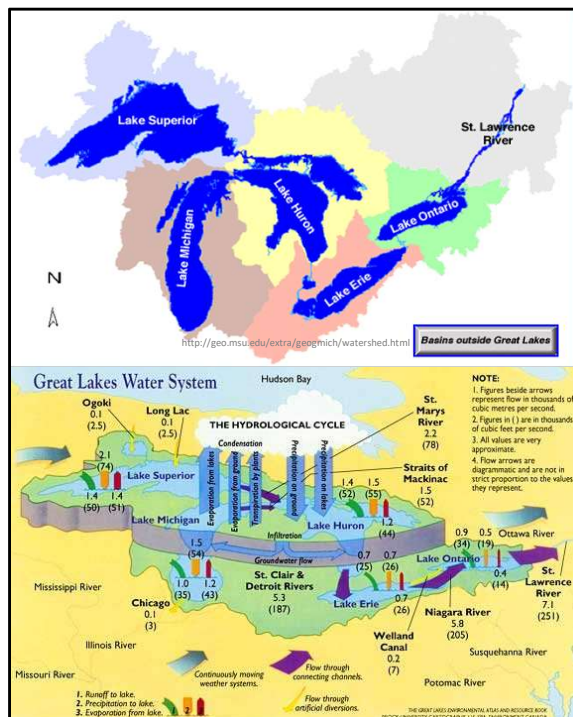
journalists of MLive, Michigan Radio, Detroit Free Press and others have also contributed significantly to public knowledge.

We should know that our elected officials in Congress are also working on protecting Michigan Waters.

Representative Dingell has co-written a bill for the House (HB 458-115<sup>th</sup> Congress, "Preserve our Lakes and Keep Our Environment Safe Act" and Senators Stabenow and Peters had written one for the Senate (PIPES, Protecting our Infrastructure of Pipelines and Enhancing Safety Act") which was signed into law by President Obama.

And I am grateful to the Grand Traverse Bay Band, who at their Water Symposium of May 2016 kicked-off a collaboration to invite all to become Water Advocates in the respectful way of Indigenous Nations. Becky will explain and tell you why.

First, a few slides about Michigan waters and about Enbridge Line 5.



Riparian Water  
inland surface water

Littoral Water  
coastal waters

Groundwater  
subterranean water

Confined aquifer  
bottom and top boundary

Unconfined aquifer  
without a top and/or bottom boundary



Water defines Michigan as much as any industry. Water:

- riparian—creeks, streams, rivers, ponds, inland lakes;
- littoral—our 3,288 miles of Great Lake coastline;
- groundwater—water held and transported in permeable rock, called an aquifer, underground.

The upper left image describes what parts of Michigan shed into which Great Lake. And the lower left image is the water cycle we have seen during our schooling years with a little more more detail. Please note that groundwater is a part of the water cycle.

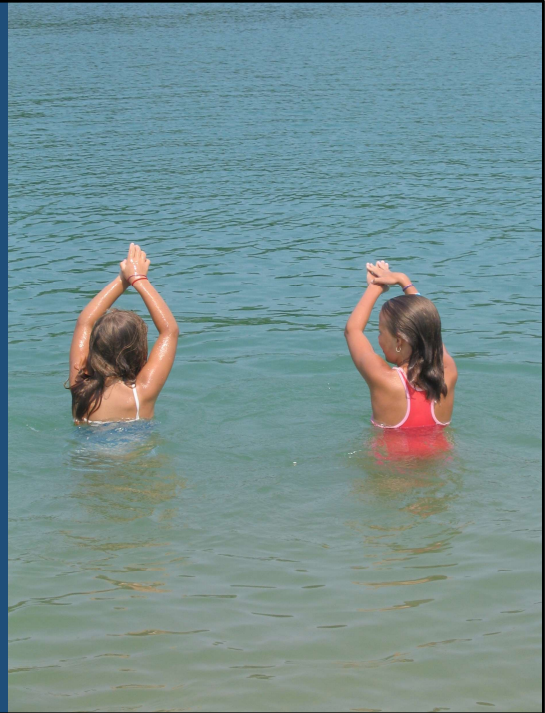
Aquifers, confined or or unconfined, refers to the layers above and below. It does not negate lateral movement or the extent of directional flow of groundwater.

Timber, mining, automotive industries have ebbed and flowed, but Water has been Michigan's constant attribute. 21% of the earth's fresh water is in the Great Lakes.

## PURE TOURISM

- 113.4M visitors
- 22.8B visitors spend
- 37.8B business sales generated
- 214,000 tourism jobs
- 326,685 jobs in supporting industries
- 2.4B local and state taxes
- 2.5B federal taxes

<http://www.michiganbusiness.org/cm/Files/Reports/Michigan-2014-Tourism-Economic-Impact.pdf>



Michigan's tourist industry rose from Michigan's Waters: a snapshot from a 2015 MSU study, Michigan Tourism Industry Continues to Grow, captures this. Bonnie Zola wrote this.

*...visitors spent 22.8B on lodging, food, and beverage, recreation and entertainment, and transportation throughout the state, generating nearly \$2.4 billion in state and local taxes and \$2.5 billion in federal tax revenue, accounting for more than 214,000 Michigan jobs.*

## PURE *A*GRICULTURE

- 52,194 farms on 10M acres
- 300 commodities, #2 in USA
- 923,000 farming jobs
- 22,600 other jobs
- 13B in ag revenue
- 101.2B economic activity
- 2.8B products exported, generating another 8.2B in this industry

<http://www.michigan.gov/mdard/0,4610,7-125-1572-7775--,00.html>



Michigan's agricultural industry relies on Michigan's water resources for viability. Here are some facts, as compiled by the Michigan Department of Agriculture and Rural Development in 2016.

(bullet #1)

93% of the farms are family or individually owned.

(bullet #4)

The "other jobs" are found within the the storage, processing, and transportation food industries.

(bullet #7)

Most of the exported agricultural and food products are sold to Canada, China, Japan, Mexico, and Thailand.

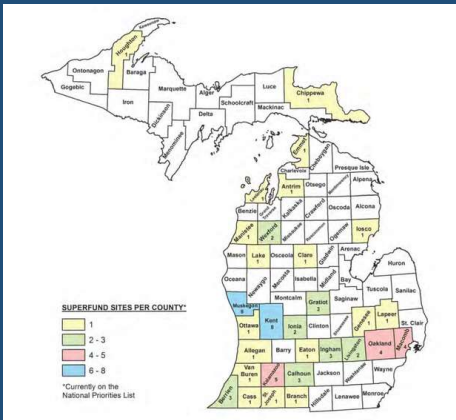


And not to be overlooked—all of us, all Michigan communities, schools, hospitals, places of business, and homes rely on ready, reliable, clean, public access to potable water. The Flint Water Crisis continues to underscore this paramount fact of human life.

Michigan water is vital to Michigan life—economic and human, alike.

These are a few reminders that clean water is important to Michigan flora and fauna too.

6,600 Toxic Sites  
65 Superfund Sites



[http://www.mlive.com/news/index.ssf/2016/05/michigan\\_superfund\\_sites.html](http://www.mlive.com/news/index.ssf/2016/05/michigan_superfund_sites.html)



<https://insideclimatenews.org/news/20111011/epa-dilbit-enbridge-6b-pipeline-kalamazoo-river-cleanup-tar-sands-oil-sands-keystone-xi-landowners-environment>

### Enbridge Line 6B break

- 17 hours
- 800,000 to 1M gal
- 36 miles
- Benzene added to maintain viscosity
- 4y cleanup
- Enbridge reported cost 1.2B
- Cost to Michiganders = ?



Yet, in Michigan there are over 6600 toxic sites, of which approximately 10% are designated as superfund sites.

July 2010. A six foot gash in Enbridge Line 6B at Talmadge Creek dumped between 800,000 and 1M gallons of tar sands crude and benzene into Kalamazoo River over 17h.

After four years of containment and reclamation, court cases followed. A settlement followed a suit filed by the state of Michigan. Dismissal was the outcome of the case filed by an individual.

In addition to the cost, note the length of time. Could any business be disrupted for that long and survive?

Representative Yousef Rabhi



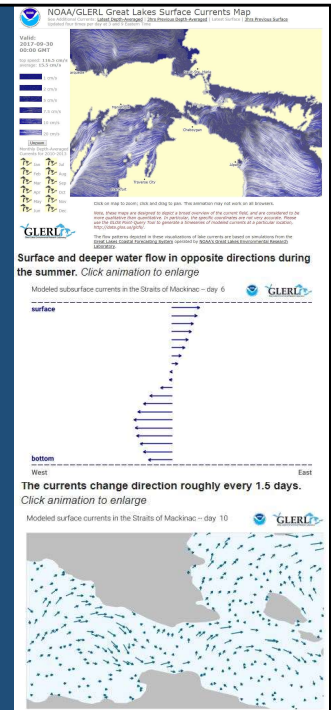
Let's welcome Representative Rabhi to the podium to talk about what is happening Lansing to protect Michigan waters.

- Groundwater legislation
  - MI HB 5014
    - [http://www.legislature.mi.gov/\(S\(vib23osefqf0yczle0amnw4e\)\)/mileg.aspx?page=BillStatus&objectname=2017-HB-5014](http://www.legislature.mi.gov/(S(vib23osefqf0yczle0amnw4e))/mileg.aspx?page=BillStatus&objectname=2017-HB-5014)
- Pipeline Safety Legislation
  - MI HB 4569
    - [http://www.legislature.mi.gov/\(S\(fixjjau03hnxedamovpnhddu\)\)/mileg.aspx?page=GetObject&objectName=2017-HB-4569](http://www.legislature.mi.gov/(S(fixjjau03hnxedamovpnhddu))/mileg.aspx?page=GetObject&objectName=2017-HB-4569)
  - MI HB 4570
    - [http://www.legislature.mi.gov/\(S\(trmzgpnrwirqc5a0afktlg4l\)\)/mileg.aspx?page=GetObject&objectname=2017-HB-4570](http://www.legislature.mi.gov/(S(trmzgpnrwirqc5a0afktlg4l))/mileg.aspx?page=GetObject&objectname=2017-HB-4570)
  - MI HB 4571
    - [http://www.legislature.mi.gov/\(S\(fclbwrexspq4mexi0w3fvkbh\)\)/mileg.aspx?page=GetObject&objectName=2017-HB-4571](http://www.legislature.mi.gov/(S(fclbwrexspq4mexi0w3fvkbh))/mileg.aspx?page=GetObject&objectName=2017-HB-4571)
  - MI HB 4572
    - [http://www.legislature.mi.gov/\(S\(m0xcv5ww3134hmbuj2mbfrij\)\)/mileg.aspx?page=GetObject&objectName=2017-HB-4572](http://www.legislature.mi.gov/(S(m0xcv5ww3134hmbuj2mbfrij))/mileg.aspx?page=GetObject&objectName=2017-HB-4572)

## How the Straits are Different from Kzoo River

- Straits of Mackinac are about ~5mi wide and ~200ft deep
- Water activity in the Straits influences the waters of Lake Michigan and Lake Huron up to 70km into each (Anderson & Schwab 2013)
- Atmospheric pressure (i.e. varying weather systems over each Lake) effects Lake heights, which are resolved in the Straits
- There are surface and deep currents; the directions are often in opposition
- Current speed of 1m/sec are not unusual (Miller & Saylor 1991)
- 80,000m<sup>3</sup>/sec, which is 10x more volume than flows over Niagara Falls (Schwab 2014)
- The Lakes are semidiurnal, which means the Lakes have a lunar tidal flow 2x/day
- Seasonal temperatures effect oscillations and thermoclines create vertical flows
- Wind creates surface waves and Lake Basin shape influences wave action
- Hydrologically Lake Huron and Lake Michigan are a single body of water. In another geologic time, a cataract from Lake Michigan into Lake Huron separated the lakes.

<https://www.glerl.noaa.gov/res/glcfs/currents/>  
<https://www.glerl.noaa.gov/res/straitsOfMackinac/graphics/subsurfacesmall.gif>  
<https://www.glerl.noaa.gov/res/straitsOfMackinac/graphics/surfacesmall.gif>



(use wind current map to point out the Straits, Lakes, Peninsulas)

These Straits are the waters passing underneath the Mackinac Bridge. The Straits connect Lake Michigan to Lake Huron and demarcs Michigan's Upper Peninsula and Lower Peninsula.

(read facts 1-8, omit reading last 9 & 10)

Anyone who has a smartphone—pick one of the website listed in the citation. This top image is real-time wind currents. The other two images are simulations created by David Schwab of the Graham Sustainability Institute at the University of Michigan and the Great Lakes Research Lab.

# Enbridge Line 5: What Does Age Got to Do with It

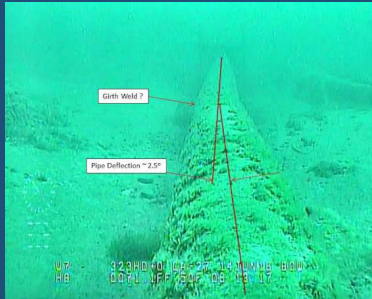


[www.mlive.com/news/index.ssf/2017/07/line\\_5\\_bends\\_ovals.html](http://www.mlive.com/news/index.ssf/2017/07/line_5_bends_ovals.html)



[http://www.mlive.com/news/index.ssf/2017/06/line\\_5\\_unsupported\\_spans.html](http://www.mlive.com/news/index.ssf/2017/06/line_5_unsupported_spans.html)

1. "...ongoing measures we take, including 24/7/365 monitoring" (Brad Shamla, VP U.S. Liquids Operations, Enbridge brochure "The Straits of Mackinac crossing and Line 5" p1)
2. "Enbridge can shut off the flow in 2 to 3 minutes" (Ryan Duffy, Enbridge Regional Communications and Media Relations Mgr, Sep 12 2016, Glen Arbor Sun, "Why Michigan Should Trust Us with Pipeline")
3. "Safety is important to everyone—especially the people who live, work, and play along pipeline routes." (Brad Shamla, VP U.S. Liquids Operations, Enbridge brochure "The Straits of Mackinac crossing and Line 5" p6)



[http://www.mlive.com/news/index.ssf/2017/07/line\\_5\\_bends\\_ovals.html#in-cart\\_river\\_index\\_topics](http://www.mlive.com/news/index.ssf/2017/07/line_5_bends_ovals.html#in-cart_river_index_topics)

The safety of the two Mackinac Straits oil pipes is becoming an issue. I was a member of the team that welded up those two four-mile-long pipes and dragged them across the straits back in 1953. At that time we were told that the pipes would last for 50 years. Well, that was more than 61 years ago.

Why worry? Design specifications called for a minimum bend radius of no less than 1,700 feet and unsupported spans of no more than 75 feet. The bottom is hilly; to meet these specifications dredging was required. Fifteen-foot-wide trenches were cut through the tops of the hills, but deep-water dredging was not an exact science using technology of the 1950s.

What about the bending stress in the pipes, added to the stress from the oil pressure, roughly 400 psi? The roughly 1,500 welded joints shouldn't be an issue. Each joint was X-rayed twice.

Has external corrosion reduced the strength of the pipes? Before being filled with oil, the pipes were filled with water and pressurized to 1,200 psi for 10 hours.

Perhaps they should be filled with water and pressure checked again today.

Bruce Trudgen  
Acme

<http://surfgreatlakes.org/2014/04/09/concerns-mount-over-mackinac-pipeline-original-welder-speaks-out/>



[http://www.mlive.com/news/index.ssf/2017/08/deq\\_dnr\\_mae\\_line\\_5.html](http://www.mlive.com/news/index.ssf/2017/08/deq_dnr_mae_line_5.html)

Much is made of the fact Line 5 was given a lifespan of 50 years and it is now year 64 old. Walter Kresic, Enbridge VP of Pipeline Integrity states that Line 5 can operate indefinitely (MLive, June 10 2016 "Line 5 Could Operate Indefinitely"). Physical evidence is growing that Line 5 is showing its age. The Michigan Petroleum Pipeline Taskforce Report of July 2015, p 43-44, points out several concerns of many where Enbridge has failed to address the integrity of Line 5: acidic secretions of attached mussels; deterioration of required supports, as required by the easement; absence of transparency in regards to Enbridge's own internal pipeline inspections.



(read quote 1)

Mark Schauer says in the MLive video of May 23 2017, "Larry Bell Speaks out about the Kalamazoo River Oil Spill" (2min28sec), *"It was indicative of this entire incident. They botched being aware of this spill in their own system. From the control center...it was like a scene from the Simpson's....They missed every alarm system....It wasn't even [Enbridge] discovered the spill on the site."*

Indeed, a year later, in May 2011 there was another Enbridge leak in Michigan that was not discovered by Enbridge people or its equipment. When Enbridge began improvements at the North Straits pumping station (St Ignace side of the Straits), groundwater infiltrated the construction site. Contractors made a temporary area to the collect the groundwater. It was the contractors who detected oil by smell and sight of an oily sheen. PID tests of the groundwater and soil revealed pyrene, xylene, methylnaphthalene, chrysene, fluoranthene in addition to the crude.

It was 2 years before monitoring wells were installed, whereupon Enbridge reported that the groundwater containing the volatile organic compounds were running away from the Lake Michigan which is only yards away. Many regard this claim as nonsense, because the watershed empties into our Lake.

(read quote 2)

A shut-off of 2 to 3 minutes can only take place AFTER an Enbridge process has been initiated which is AFTER an Enbridge employee engages it which is AFTER Enbridge's monitoring equipment detects it. Note that both the Kalamazoo River and pumping station spill were not discovered by Enbridge. And what if Line5 bursts while the top 3 to 4 feet of the Straits are frozen?

(read quote 3)

Larry Bell, in the aforementioned MLive video of May 23 2017 (2min 11sec) told reporters, *"...First Responders, who got sick, when they went to the doctors, the doctors said what were you exposed to and they said I don't know because they won't tell us because they don't have to tell because it's proprietary."*

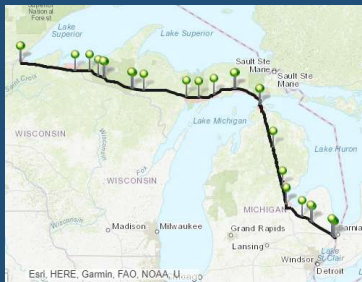
These are only three examples of divergent viewpoints. Other water advocates have uncovered others.

There is a "holiday" on one of the slides. It's image #1; delamination of the outer coating is euphemistically referred to as a holiday.

## Enbridge Line 5: Who Built It, Who Owns It



<https://content.sierraclub.org/evguide/blog/2014/10/moving-beyond-oil-clean-transportation>



[http://www.mlive.com/news/index.ssf/2017/04/enbridge\\_line\\_5\\_spill\\_history.html](http://www.mlive.com/news/index.ssf/2017/04/enbridge_line_5_spill_history.html)

- Built by Bechtel for Lakehead Pipe Line Co. (historical doc cited at end)
- Owned by Enbridge, a publicly traded (EEP & EEQ on NASDAQ) headquartered in Calgary, Alberta, Canada (Enbridge, Bloomberg)
- Line 5 employs 250, some of whom are contractors (Enbridge)
- Construction completed in 1953 (Enbridge and other sources)
- 30ft land pipe divided into a pair of 20ft that carry both propane gas and crude (Enbridge and other sources)
- 1 barrel = 42 gallons. Original volume of 120,000 barrels/day has been increasing through the years. (Enbridge and other sources)
- 2013 permit increased volume to 540,000 barrels/day of light crude and natural gas → **22,680,000M gallons/day** (Enbridge and other sources)
- 80% of the volume is light crude and 20% is natural gas (Enbridge)
- 65% families in U.P. use the propane gas to heat their homes (Enbridge)
- 14,000 barrels processed at Detroit refinery (Enbridge)
- Enbridge pays 22.4M/year in taxes (Enbridge).
- Original cost of easement was \$2450  
([http://mediad.publicbroadcasting.net/p/michigan/files/201409/1953-04-23\\_Lakehead\\_Pipe\\_Line\\_Company\\_Easement\\_through\\_the\\_Straits\\_of\\_Mackinac.pdf](http://mediad.publicbroadcasting.net/p/michigan/files/201409/1953-04-23_Lakehead_Pipe_Line_Company_Easement_through_the_Straits_of_Mackinac.pdf))



Most of these bullets came from Enbridge's own materials, several of these are also in dispute.

I would like to point out that Enbridge Line 5 travels through both of Michigan's Peninsulas and over the course of 50y Enbridge Line 5 has spilled 1.1M gallons (MLive, 25Apr2017, "Enbridge Line 5 Spill History")

As your read through these bullets I wish to point out two.

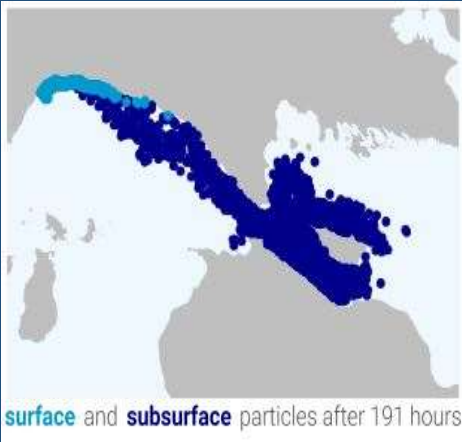
(bullet #6)

Another way of looking at the Line 5 volume under the Straits is 1M gal/hour.

(bullet #10)

Also, when considering the economic activity Enbridge contributes—recall that the economic activity of Michigan's Tourism and Agricultural industries is measured in the billions and the jobs in hundred thousands.

## Enbridge Line 5: Michigan Risks while Enbridge Profits



<https://www.glerl.noaa.gov/res/straitsOfMackinac/>

*The state has no regulatory authority over hazardous liquid pipelines in Michigan, and the federal government's authority amounts to an audit of company records to make sure they're following federal law.*

*The only reason the state can push Enbridge for more information is because the company has a legal contract with the state. The two 20-inch pipelines run under the Straits of Mackinac under the conditions of a 1953 easement.*

<http://michiganradio.org/post/3-things-note-enbridge-documents-released-today>



Water advocates have been pushing the State to use the Enbridge's violations of the easement, namely the deterioration of the pipeline supports, to terminate the easement. Thus far our State has not taken this assertive measure.

The Indigenous and First Nation People have strategies and tools that are unique to them. Let's welcome Becky Roy, so she can start at #StandingRock and bring us forward to a traditional manner of water advocacy in the Great Lake Basin and initiatives underway.

Becky Roy



- Women are the Care Takers of Water
- There is no room for anger in this movement
- What happened at Standing Rock and what that means for the Great Lakes
- Recap GTB Symposium of May 2017 (kick-off of broad collaboration & appeal to non-Indigenous Michiganders to follow lead and advocate for water in the Great Lake Basin)
- Why Enbridge Line 5 was chosen among all of Michigan's water challenges
- Unique tools and resources available to Indigenous Nations (e.g. treaties)
- Examples thereof
- Coordination with other Nations, such as Bad River Band of WI not renewing lease for Line 5 (<http://www.oilsandsmagazine.com/news/2017/1/11/enbridges-line-5-in-the-cross-hairs>)
- What First Nation and Indigenous Nations do will benefit everyone.
- Like the Indivisible Political Movement, Water Advocacy requires feet on the ground grass-roots participation to support work happening at roundtables, in courts, and on the legislature floor
- Upcoming events
  - Three Fire Alliance hosts Community Art Build and Indigenous Storytelling Fundraiser 21 October 8a – 9p, Fenner Nature Ctr, 2020 Mt Hope Ave, Lansing
- What is asked of the audience

Clean Water Action in Michigan ([CleanWaterAction.org/states/Michigan](http://CleanWaterAction.org/states/Michigan))  
For Love of Water, FLOW ([FlowForWater.org](http://FlowForWater.org))  
Great Lakes Business Network ([GBusinessNetwork.com](http://GBusinessNetwork.com))  
Oil and Water Don't Mix ([OilandWaterDontMix.org](http://OilandWaterDontMix.org))  
Michigan Citizens for Water Conservation, MCWC ([SaveMiWater.org](http://SaveMiWater.org))  
Michigan League of Conservation Voters ([MichiganLCV.org](http://MichiganLCV.org))  
Michigan Water Protector Camps (fb link: [https://www.facebook.com/pg/MIWaterCamps/about/?ref=page\\_internal](https://www.facebook.com/pg/MIWaterCamps/about/?ref=page_internal))  
Sierra Club of Michigan ([SierraClub.org/Michigan](http://SierraClub.org/Michigan))  
Upper Peninsula Environmental Council, UPEC ([UPEnvironment.org](http://UPEnvironment.org))  
Watershed Groups – Michigan Water Environment Association ([Mi-WEA.org/watershed\\_groups.phpd](http://Mi-WEA.org/watershed_groups.phpd))



- Like the Indivisible Political Movement, Water Advocacy requires feet on the ground grass-roots participation to support work happening at roundtables, in courts, and on the legislature floor
- The water advocate groups listed is not exhaustive. Please find one and ask how you can join your voice with other water advocates
- ? So...how much water passing under the Straits of Mackinac are you willing to risk
- Let's open the floor for a dynamic Q&A. That is, if you have answer to a question please offer it.

## List of Sources

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### Michigan's Tourist and Agricultural Industries

<http://www.michiganbusiness.org/cm/Files/Reports/Michigan-2014-Tourism-Economic-Impact.pdf>  
<http://www.michigan.gov/mdard/0,4610,7-125-1572-7775--,00.html>

### Waters of Michigan

Public Act 148, 2003 Enrolled Senate Bill 289 as mentioned in <https://mi.water.usgs.gov/splan6/AquiferMap/> (provided funding for many of the maps below)  
Michigan Groundwater Maps-MSU, USGS, DEQ  
[www.mi-wea.org/docs/MichiganAquifers.ppsx](http://www.mi-wea.org/docs/MichiganAquifers.ppsx)  
<https://www.epa.gov/greatlakes/great-lakes-facts-and-figures> and <https://www.epa.gov/greatlakes>

### Michigan's Toxic and Superfund Sites

<http://michiganradio.org/post/new-research-gives-clearer-picture-where-oil-might-go-if-line-5-breaks-open-great-lakes>  
[http://www.mlive.com/news/index.ssf/2016/05/michigan\\_superfund\\_sites.html](http://www.mlive.com/news/index.ssf/2016/05/michigan_superfund_sites.html)

### Enbridge Line 6B Spill

[http://www.mlive.com/news/kalamazoo/index.ssf/2010/07/oil\\_spills\\_into\\_creek\\_that\\_lea.html](http://www.mlive.com/news/kalamazoo/index.ssf/2010/07/oil_spills_into_creek_that_lea.html)  
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[http://www.mlive.com/news/kalamazoo/index.ssf/2017/05/larry\\_bell\\_speaks\\_out\\_about\\_ka.html](http://www.mlive.com/news/kalamazoo/index.ssf/2017/05/larry_bell_speaks_out_about_ka.html)

### Nature of Great Lakes and the Straits

<https://www.glerl.noaa.gov/pubs/fulltext/2013/20130038.pdf>  
<https://www.glerl.noaa.gov/pubs/fulltext/1991/19910004.pdf>  
<https://www.glerl.noaa.gov/pubs/fulltext/1976/19760003.pdf>



This presentation was compiled by Lisa Patrell (lpa2mi@gmail.com) for a presentation to Washtenaw County Democratic Party (washtenawdems.org) membership at the the October General Meeting, which is open to the public and free of charge.

The List of Sources represents most of the documents I have read in preparation. It too is not exhaustive of all the documents that have been generated about the Straits of Mackinac and Line 5 that crosses these waters.

All photos are sourced from my family album, Becky Roy's album, public domain images, and images allowed for educational purposes. The images and text of this presentation may be reused in full or in part for educational purposes. The Creative Commons copyright denotes this.

## List of Sources

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### Enbridge Line 5

<https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=280420>  
<http://www.nasdaq.com/symbol/eeq> and <http://www.nasdaq.com/symbol/eep>  
[https://www.enbridge.com/~media/Enb/Documents/Projects/line5/Line\\_5\\_and\\_Pipelines\\_in\\_Michigan.pdf?la=en](https://www.enbridge.com/~media/Enb/Documents/Projects/line5/Line_5_and_Pipelines_in_Michigan.pdf?la=en)  
<https://www.enbridgepartners.com/~media/EepEeqMep/Site%20Documents/Shared%20Content/Delivering%20Energy/Mainline%20Configuration%20and%20Capacities.pdf>  
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<https://www.enbridge.com/projects-and-infrastructure/public-awareness/line-5-michigan/fact-sheets>  
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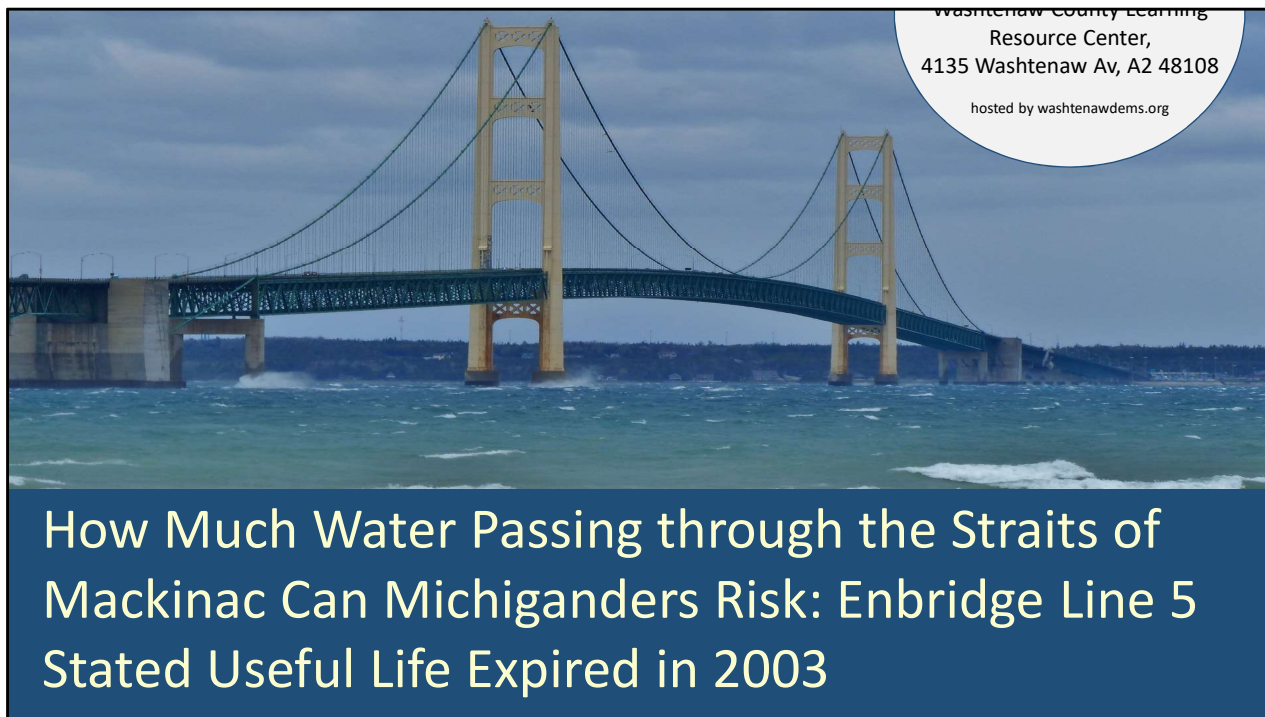
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List of Direct Announcements I made

- Clean Water Action/Emily Woodcock, A2 Canvass Director-site email
- Cherry Republic/Bob Sutherland, Owner-fb msg
- Water Is Life/Calendar-site calendar
- Michigan Stands in Unity-fb page posting
- MI Water Camps-twitter post
- MI SierraClub-twitter post w WCDP fb/events link; twitter direct msg
- MI Environmental Council – twitter post w SCDP fb/events link
- OFA\_MI – twitter post
- A2 Climate Partners – twitter post
- Clean Energy Coalition – twitter post
- Ryan Stanton + A2 Y Instructors group fb thread - added wcdp link & jpeg
- Lakeshore Water Protectors/Shannon Donley-fb msg
- Huron Valley Sierra Club/Rita Mitchell tete-e-tete at WCDP office