

Protecting Drinking Water in the Great Lakes

Katie Rousseau, American Rivers

Great Lakes Legislative Caucus
Annual Meeting
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American Rivers

- American Rivers protects wild rivers, restores damaged rivers, and conserves clean water for people and nature.
- Since 1973, American Rivers has protected and restored more than 150,000 miles of rivers through advocacy efforts, on-the-ground projects, and an annual America's Most Endangered Rivers® campaign.
- Headquartered in Washington, DC, American Rivers has offices across the country and more than 200,000 members, supporters, and volunteers.



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ASBESTOS FOUND IN DULUTH WATER

By JANE E. BRODY JUNE 16, 1973



June 16, 1973, Page 28
The New York Times Archives

The Environmental Protection Agency disclosed yesterday that “high concentrations” of potentially dangerous asbestos fibers had been found in the drinking water of Duluth and surrounding Minnesota communities that use Lake Superior for their water supply.

The source of the fibers, the agency said, is believed to be the discharge of waste from the Reserve Mining Company, a taconite processing plant that has been embroiled in an anti pollution suit for several years.

The company, whose plant in Silver Bay, Minn., 55 miles northeast of Duluth, has been dumping 67,000 tons of taconite tailings into the lake daily for 16 years, called the charges unfounded and said there was no indication that the tailings presented any hazard to the drinking

Cryptosporidium in Milwaukee's water supply caused widespread illness

The 1993 Milwaukee cryptosporidiosis outbreak remains the largest epidemic of waterborne disease in U.S. history.

<https://www.healio.com/infectious-disease/gastrointestinal-infections/news/print/infectious-disease-news/%7Bc89c35b9-b521-43e5-960c-1d3809f77482%7D/cryptosporidium-in-milwaukees-water-supply-caused-widespread-illness>

Toledo, Ohio



Photo Credit: Akron Beacon Journal

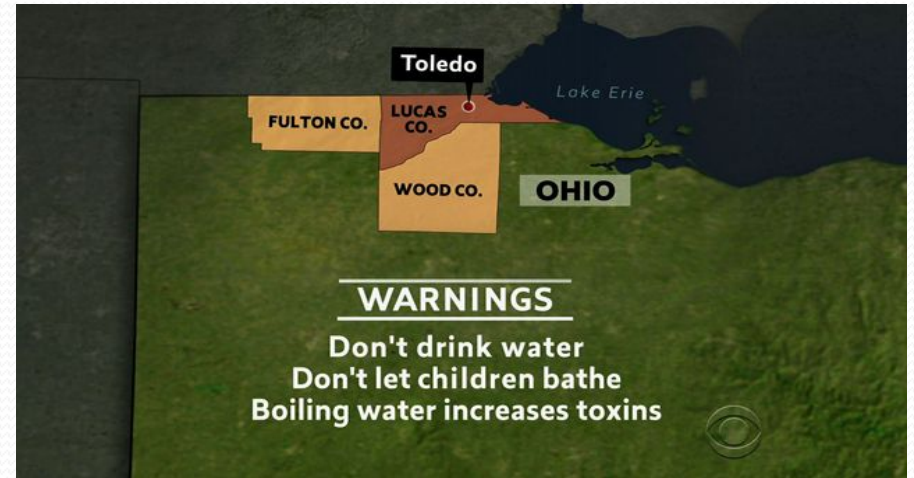


Photo Credit: CBS News



Photo Credit: Toledo Blade

Flint, Michigan



Photo Credit: inside-flint-pipes-min-tang-and-kelsey-pieper_2



Photo Credit: The Eagle Pittsburgh Barack Obama Academy of International Studies

Do Not Eat Fish From Clark's Marsh

The Michigan Department of Community Health has found unsafe levels of perfluorinated chemicals (PFCs) in fish from this area.



Eating fish from Clark's Marsh could harm your health.

Catching and releasing fish is fine. Touching the fish or water will not harm you.



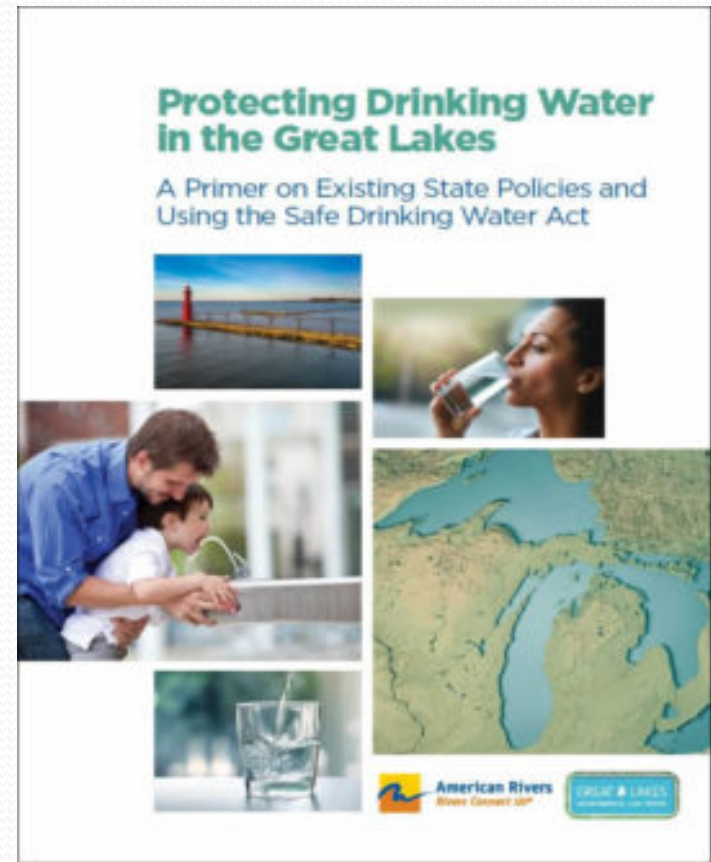
For more information, call MDCH at 1-800-648-6942 or visit www.michigan.gov/eatsafefish.



Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that include PFOA, PFOS, GenX, and many other chemicals.

Report

Provide an overview to policy advocates, attorneys, legislators, and regulators regarding the federal Safe Drinking Water Act, how it is implemented by the 8 Great Lakes states, and how states are going above the floor set by the Safe Drinking Water Act to create more protective drinking water quality regulations.



States Reviewed

Phase One

- Michigan
- Wisconsin
- Ohio

Phase Two

- Illinois
- Indiana
- Minnesota
- New York
- Pennsylvania

Listening Sessions

- 11 total: at least 1 in each state (2017 and 2018)
- Healing Our Waters Great Lakes Restoration Conference in Buffalo, NY
- Freshwater Future meeting in Detroit



Photo credits: Simone Lightfoot, NWF

Topics Addressed

1. Maximum contaminant levels, treatment techniques, and monitoring standards
2. Regulation of lead in drinking water
3. Consumer confidence reporting
4. Loans and grants
5. Public participation in standards development, permits, and enforcement
6. Operator certification
7. Management of drinking water emergencies
8. Management of toxic algae blooms
9. Private water supplies

The Safe Drinking Water Act (SDWA)

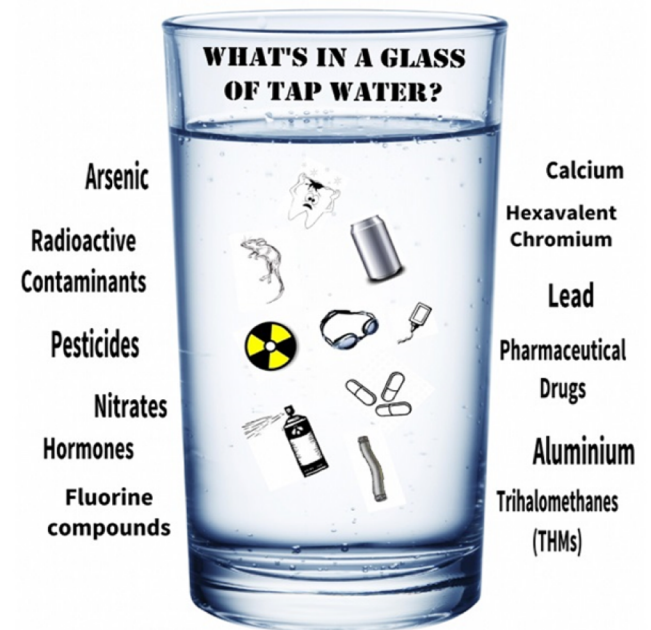
- Regulates Public Water Systems:
 - Provide water for human consumption through pipes or other constructed conveyances if such a system has at least 15 service connections or serves at least 25 individuals
- Allows regulation of contaminants to limit lawful amount of harmful substances delivered water may contain
- Establishes a cooperative federal-state arrangement allowing states to implement and enforce SDWA

Contaminants

The SDWA establishes national primary drinking water regulations for contaminants that pose risks to public health and that are likely to be found in public water supplies.

Standards for:

- Microorganisms
- Organic and inorganic chemicals
- Radionuclides
- Disinfectants and their byproducts



Contaminants (cont.)

	Michigan	Ohio	Wisconsin
Max Contaminant Levels (MCLs), Treatment Techniques, and Action Levels	Lead (12 ppb in 2025)	Microcystins (0.3 µg/L action level)	Vinyl Chloride (0.0002 mg/L)
Secondary MCLs	Chloride, Calcium Carbonate, Iron, Sodium, Sulfate, Corrosivity	pH (less stringent) Fluoride (notify public) Iron and Manganese	Did not adopt pH Fluoride (notify public) Hydrogen Sulfide
Review and promulgation of MCLs	Only if needed	Review rules every 5 years	Only if needed

Monitoring

- MI, OH, and WI have gone beyond the federal regulatory requirements and have created more stringent state requirements in some form or fashion.
- How they have changed the requirements vary widely
 - Requiring more frequent monitoring
 - Requiring monitoring for contaminants that is not required under federal regulations
 - Stricter reduced monitoring requirements
 - Not allowing water systems to obtain a waiver in instances where a waiver is allowed per federal regulations

Federal Lead and Copper Rule

- 1 Liter compliance samples at Tier 1 homes
 - 50% at lead service line homes
 - 50% at copper with lead solder homes from early 1980s
- Consumer notice of tap sample results within 30 days
- When there is a lead action level exceedance:
 - Public Education within 60 days
 - Optimal corrosion control treatment
 - Begin lead service line replacement at 7% per year

	Michigan	Ohio	Wisconsin
Relationship to Federal Rule	Finalized revisions to the federal rule in June 2018	HB 512 updated several provisions in 2016-18	Adopted federal rule with no material revisions
Compliance sampling	Only LSL homes are tier 1 sites 2 sequential 1 L samples at LSL homes	Must describe tier 1 sampling sites for Ohio EPA	Per federal rule
Consumer notice about individual house sampling results	Per federal rule, within 30 days of learning result	Labs analyze sample within 30 days, Provide notice to PWS by next day, To consumer in 2 days	Per federal rule
Public education (PE) after action level exceedance (ALE)	Public advisory within 3 days of learning of ALE PE within 60 days of ALE	Notice within 2 business days after ALE All PE within 1 month	Per federal rule, PE within 60 days of ALE

Lead and Copper Rule (cont.)

	Michigan	Ohio	Wisconsin
Service Line Inventories	Preliminary inventory by 1/1/2020 Verified inventory by 1/1/2025	Identify and map areas known or likely to contain LSLs	Per federal rule
Lead Service Line Replacement	7% per year if ALE Mandatory FLSLR replacement at 5% per year or as approved in an Asset Management Plan	Per federal rule	Per federal rule Allows financial assistance to property owners to replace LSLs on private property

Lead in Schools and Child Care Facilities

	Michigan	Ohio	Wisconsin
Sampling requirements for schools that receive water from a CWS	Voluntary	Voluntary	Voluntary
State guidance	MDEQ published new guidance in 2016	Guidance in May 2018 for a grant program to fund sampling and fixture replacement in schools	None found
Recommended lead level for taking action	5 ppb	15 ppb	20 ppb (from EPA 3T's guidance)

Consumer Confidence Reports (CCRs)

- Federal rule:
 - Source water
 - Definitions
 - Regulated contaminant data from treatment plant and distribution system
 - Unregulated contaminant data from required monitoring
 - Statement about health risk
 - Mail or directly deliver annually, with exceptions for small systems
- Minor differences at state level:
 - Encouraged or mandatory statement on unregulated contaminant health risk
 - When translations are required
 - Delivery to systems serving <1,000

Loans and Grants

Drinking Water Revolving Fund

- Created through variety of statutory mechanisms at state level to receive federal assistance
- Ohio and Michigan receive more assistance through higher annual capitalization grants than Wisconsin
- Use constrained by federal requirements
- Flexibility in developing interest rates and scoring criteria at state level

Support to Disadvantaged Communities

- Michigan (\$27,266,000)
 - Offers more points on application
 - Extended loan term
- Ohio (\$27,935,000)
 - Increased loan term, lower interest rate, or other financial assistance at discretion of Ohio EPA
- Wisconsin (\$18,931,000)
 - Lower interest rate available to small systems that are disadvantaged

Operator Certification

Authorizing Agencies

- IL – IEPA
- IN – IDEM
- MI – MDEQ
- MN – Dept. of Health (DOH)
- NY – DOH
- OH – Ohio EPA
- PA – DEP
- WI – Dept. of Natural Resources (DNR)



<https://awwoa.ca/resources/certification-information>

Operator Certification

	Michigan	Ohio	Wisconsin
Operator eligibility	Education and experience requirements; Experience not required at lowest level	Must have operating experience to sit for an examination or apply for operator in training (OIT)	Must have high school diploma or GED Waterworks operators can be OIT for 1 year
Oversight on the job	Can manage immediately without oversight	OIT cannot be operator of record	
Renewal	Every 3 years, 9-24 hours required depending on level	Every 2 years, 8-24 hours required, half related to O&M	Every 3 years, Water system op: 6 hours Waterworks op: 18 hours

Algal Blooms and Cyanobacteria

	Michigan	Ohio	Wisconsin
Monitoring	No monitoring for microcystins or other cyanotoxins	Regular monitoring in raw, finished water for cyanobacteria, microcystins	Algal Blooms Surveillance Program, citizen-based reporting
Nutrient control	Modest limits on N and P in source water	Limit on algaecides in NPDES permits; Modest limits on P and N	Water quality standards for P
Response	No design requirements to address microcystins	Action level determines frequency of monitoring, remedial measures, public notification	

Conclusions

- Each state has picked its own issues to focus on
- Out of these 3 states:
 - Michigan has gone the farthest addressing lead
 - Michigan Lead and Copper Rule is the biggest change from the federal rule
 - Over all, Ohio has added more stringent requirements than the other states
 - Ohio is most aggressive on microcystin
 - Wisconsin is the closest match to federal requirements

Next Phase of the Project

- Will include all 8 Great Lakes states
- Will detail major differences on:
 - Consumer confidence reporting (mostly NY)
 - Protection of private wells from oil & gas
 - Lead (major amendments from MI, OH)
 - PFAS

Thank you

Katie Rousseau

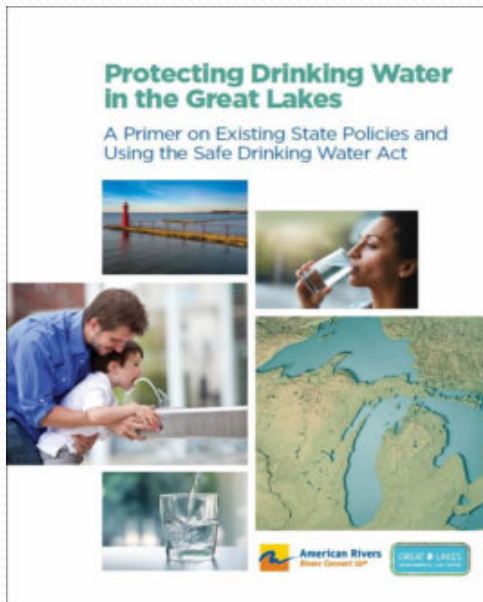
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<https://www.americanrivers.org/conservation-resource/protecting-drinking-water-great-lakes/>