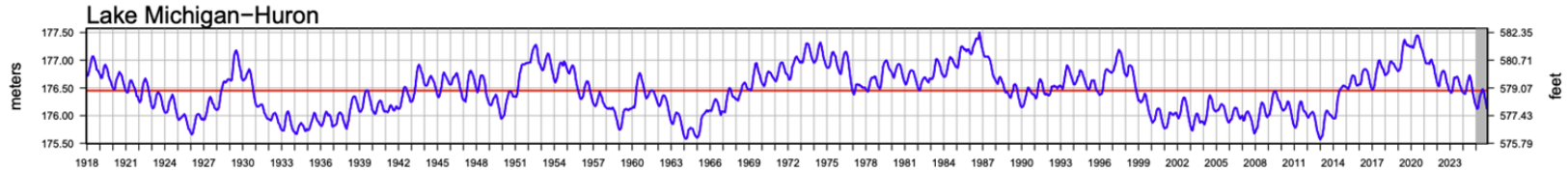




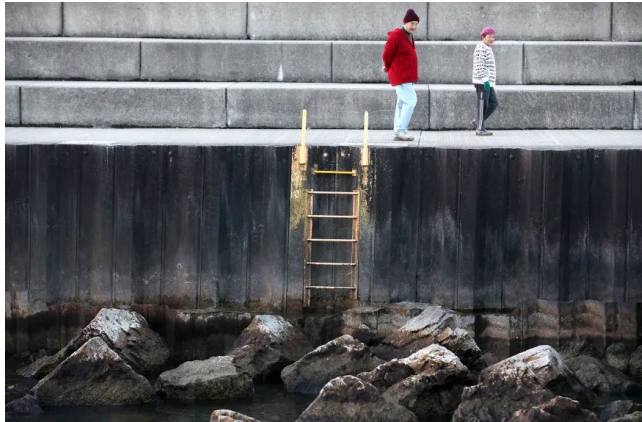
# Report and Reflections from MWRD & EPA: The View from 2026



# Lake Michigan extreme water levels are a reaction to a changing climate



Low lake level (2013)



Source: Chicago Tribune

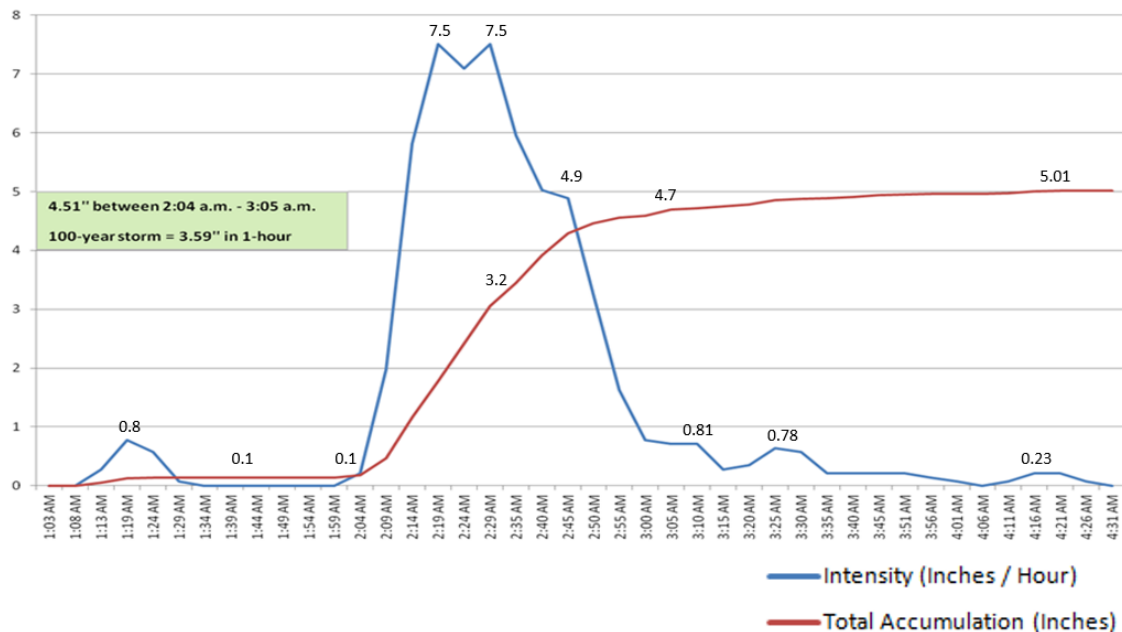
High lake level (2020)



Source: Chicago Tribune

# Climate change means more rain more quickly

Oak Lawn/Burbank, 8.22.2014, 1:03 a.m. – 4:31 a.m.





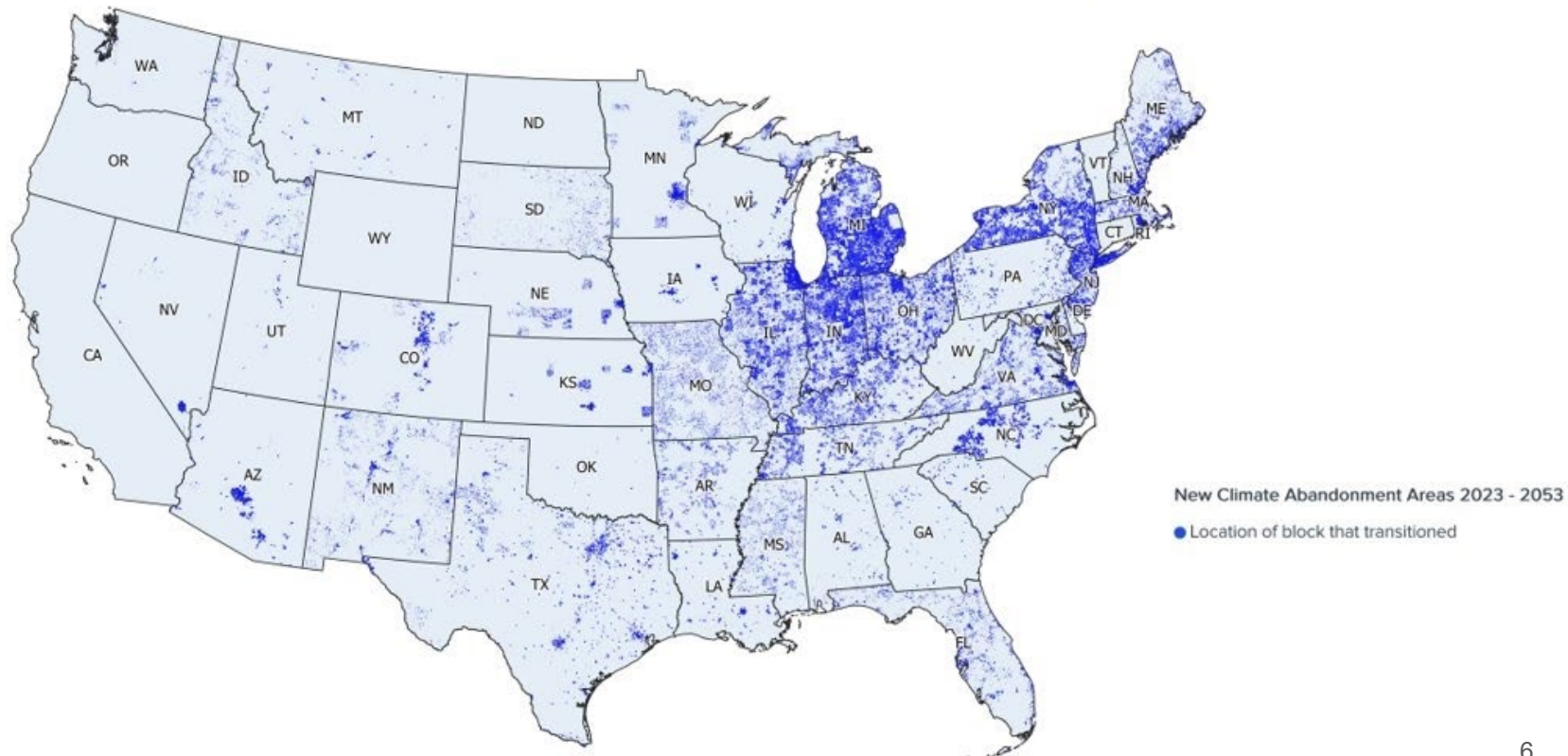
**Climate abandonment areas:**  
locations that have lost population  
between 2000-2020 due to climate  
change related flood risk.



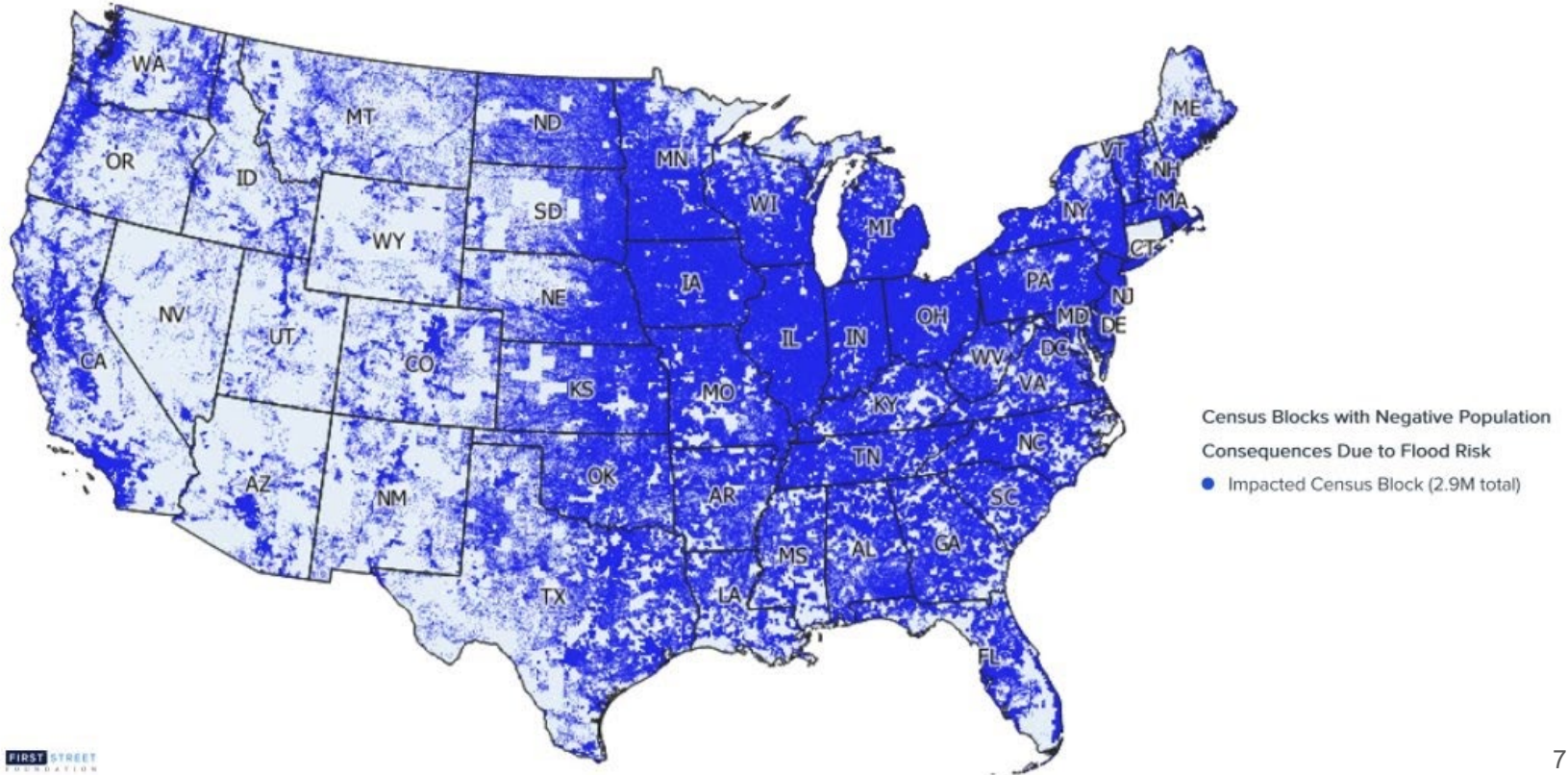
■ RISK REPORTS

The Cost of Climate

We find that 443,000 new Climate Abandonment Areas will emerge.



34.5% of the population lives in blocks that have already been impacted in some way.



## But the real impact is seen in the Climate Abandonment Areas.

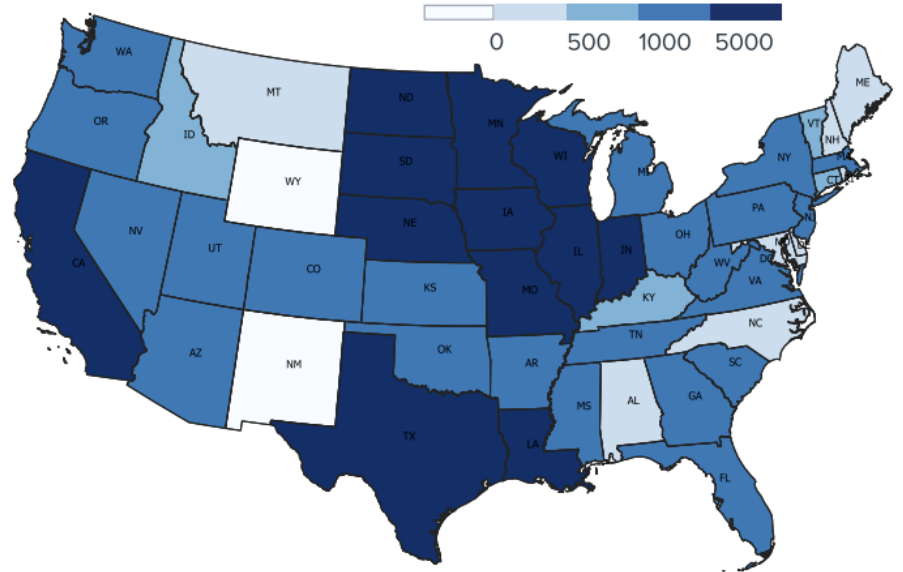
### Climate Abandonment Areas

Nearly 818,000 Census blocks in the United States, accounting for 7.4% of the total number of blocks, have already experienced a total population decrease of over 3.2 million directly attributed to flood risk.

Blocks	Properties	Population
<b>818K</b>	<b>9.4M</b>	<b>16.4M</b>
(7.4%)	(7.8%)	(5%)

Population difference due to flood: -3.2 million

## Flooding Damage Since 1980 (\$Millions)



# The Great Lakes Region Is Not a ‘Climate Haven’

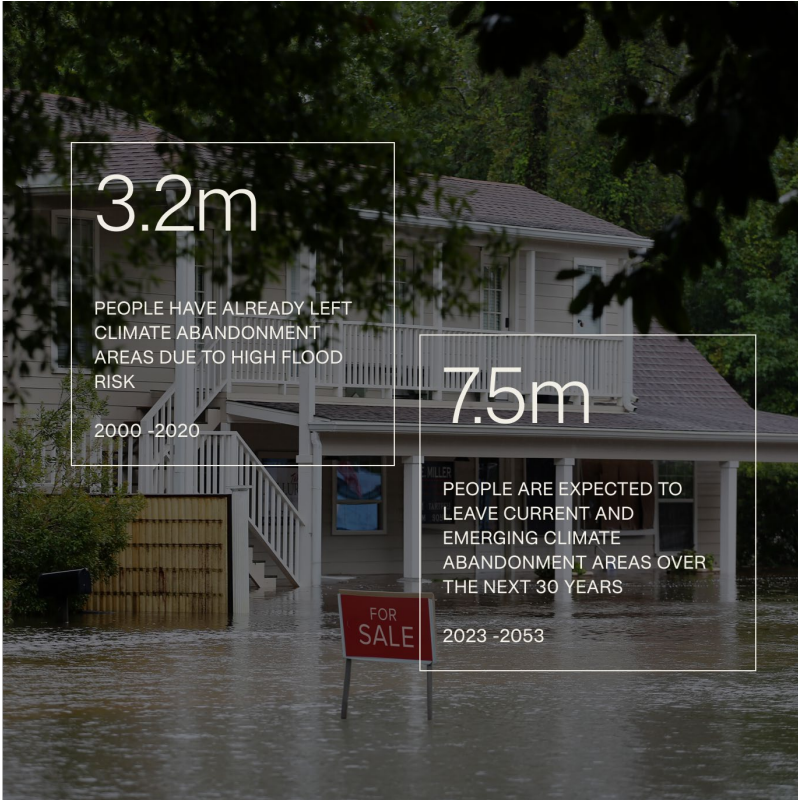
The water-rich U.S. region may have cooler temperatures and sit high above sea level. But it can't be a refuge for anyone if it doesn't take action now to adapt to its own changing climate.

## Top 10 Counties with largest increase of Climate Abandonment Areas 2023 to 2053

State	County	Metro Region	% of county in Climate Abandonment Areas 2023	% of county in Climate Abandonment Areas 2053	Absolute Increase in Climate Abandonment Areas 2023 - 2053
MN	Hennepin	Minneapolis	23.0%	56.9%	33.9%
MN	Ramsey	Minneapolis	25.2%	54.3%	29.1%
IN	Marion	Indianapolis	15.3%	39.0%	23.7%
WI	Milwaukee	Milwaukee	25.7%	45.5%	19.8%
RI	Providence	Providence	12.2%	29.8%	17.6%
NV	Clark	Las Vegas	4.4%	19.6%	15.2%
VA	Fairfax	Alexandria	10.0%	24.8%	14.7%
NE	Douglas	Omaha	9.2%	23.2%	13.9%
KS	Sedgwick	Wichita	21.7%	32.9%	11.2%
NC	Guilford	Greensboro	8.0%	18.1%	10.1%

• Defined by the % of blocks past tipping points and with overall decreasing populations

# The effects of climate abandonment are expected to accelerate in the coming decades



Home Values Declines



Vulnerable Left Behind

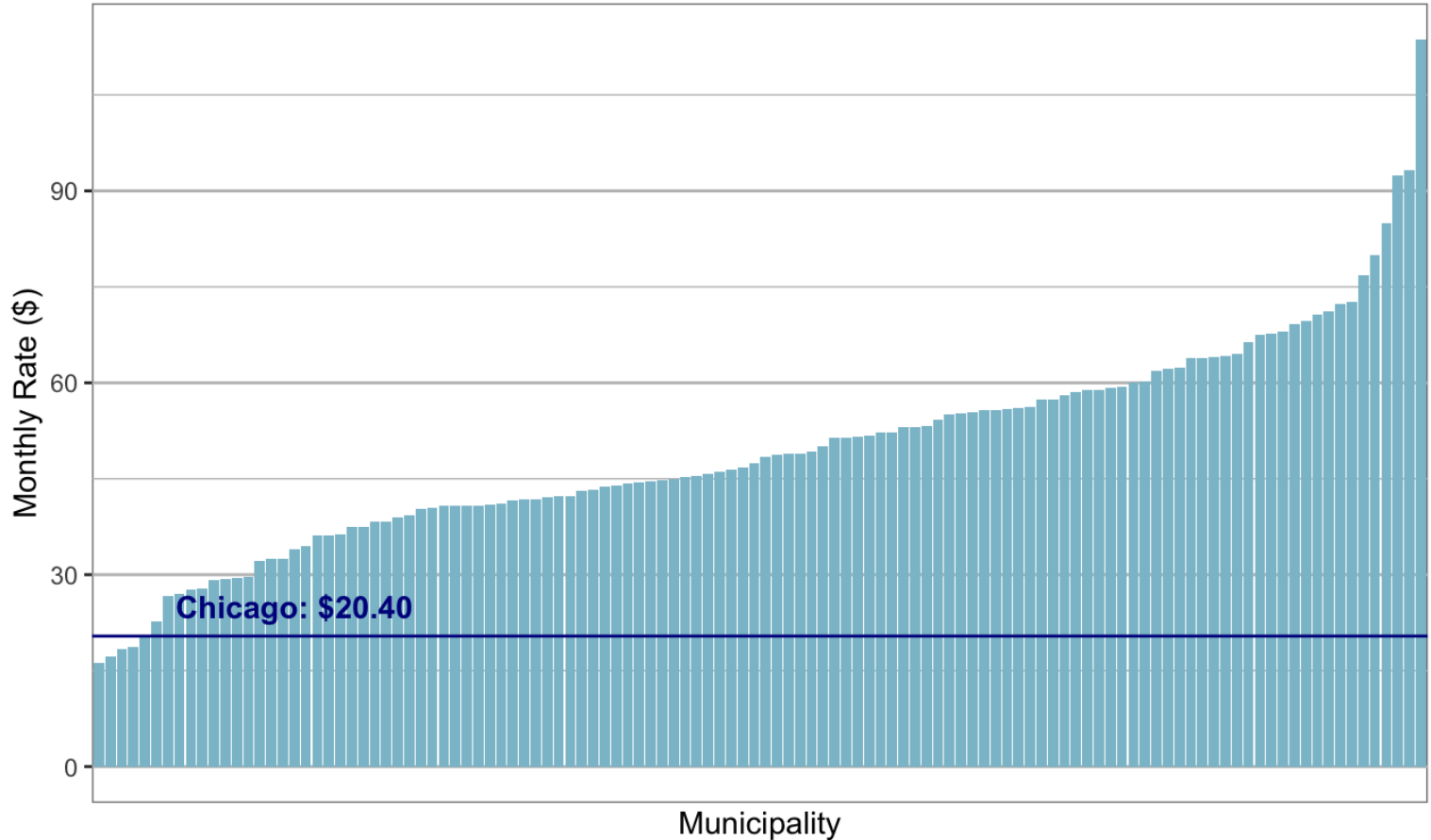


Decreased Tax Revenue

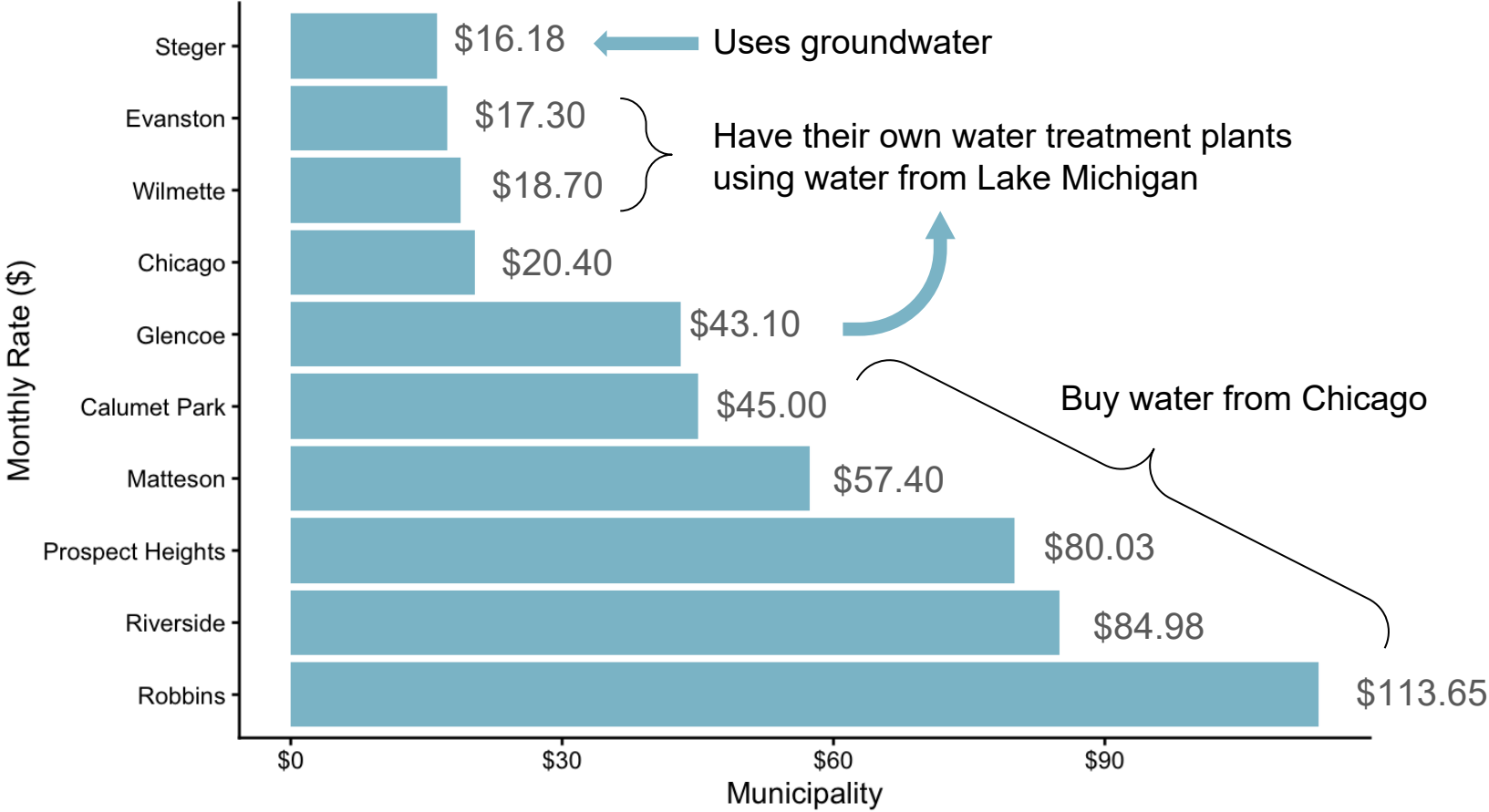


Cost of Buyout Programs

# Range of Monthly Water Bills for a Household Using 5,000 Gallons per Month for 2021 Rates Across Cook County Municipalities

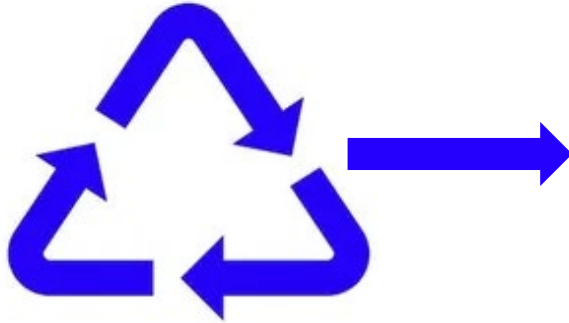


# Monthly Bill of a Household Using 5,000 Gallons of Water per Month 2021 Rates



# Where did the water in your holiday gifts come from?

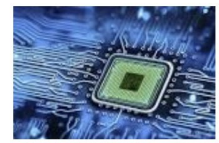
**Virtual water** is the water embodied in goods that are shipped from one watershed to another (e.g. a salad in Chicago with lettuce grown in Arizona means water moved from AZ to IL in the form of lettuce)



449 gallons for 100 grams of chocolate (about two Snickers bars)



18 gallons for one apple



4,227 gallons for one laptop or iPad microchip



132 gallons for one liter of soda

## Virtual Water: It's All Around You



333 gallons for one Margherita pizza



630 gallons for one hamburger



67 gallons for one 8-ounce glass of milk



261 gallons for 8 ounces of chicken



221 gallons for one pot of coffee



7 gallons for one 8-ounce cup of tea



21 gallons for one orange



700 gallons for one cotton t-shirt



2,900 gallons for one pair of blue jeans



52 gallons for one egg



39,090 gallons for one car



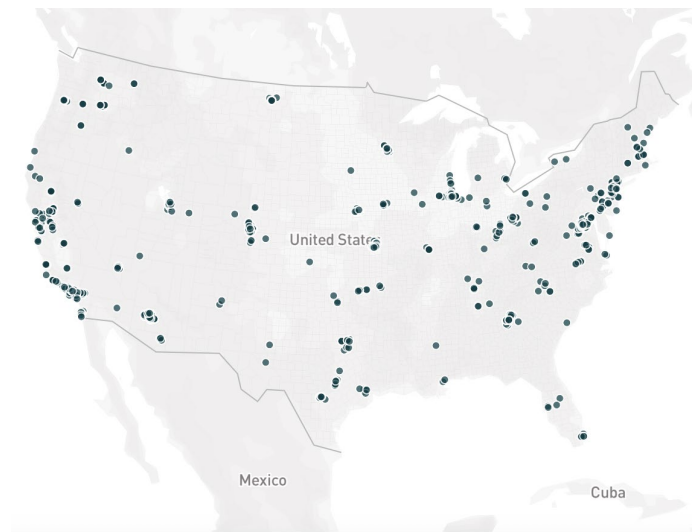
1.85 gallons for one plastic water bottle

# Virtual Water and Virtual People

- In the US, an average person has **7 social media accounts** and spends **over 2 hours per day** using social media (Source: Statista)
- The OpenAI data center in Northlake, Illinois used a tablespoon of water to complete each ChatGPT v3.0 search
- The data center in Phoenix required 2 tablespoons to complete the same search

Source: Making AI Less "Thirsty": Uncovering and Addressing the Secret Water Footprint of AI Models

Locations of data centers in the United States



Source: Business Insider

# We already know what happens when environmental protections disappear

New York City  
before the Clean Air  
Act



Cuyahoga River  
(Cleveland) on fire before  
the Clean Water Act



Oil spill and the Statue of  
Liberty in New York  
Harbor, 1973



The more things change the more they stay the same...

*“Miss Rachel Carson’s reference to the selfishness of insecticide manufacturers probably reflects her Communist sympathies, like a lot of our writers these days. We can live without birds and animals, but, as the current market slump shows, we cannot live without business. As for insects, isn’t it just like a woman to be scared to death of a few little bugs! As long as we have the ~~H~~bomb everything will be O.K.”-H.*

Davidson, Letter to the Editor of New Yorker Magazine responding to an essay by Rachel Carson

# Environmental challenges: the EPA roadmap to remedy PFAS pollution in the environment is in jeopardy



## Hidden PFAS pollution uncovered in NC as EPA proposes reporting rollback

*EPA says the change will cut red tape, but new research suggests regulators may already be missing major sources of contamination.*

## EPA's PFAS Strategic Roadmap: Three Years of Progress

November 2024

### EPA Launches New Initiative to Tackle PFAS, Identify Emerging Contaminants in Water

November 20, 2024

## Water in over 20 Illinois communities is contaminated, state EPA warns

PFAS can cause numerous health issues if left to accumulate in people's bodies.

**Environmental challenges:** microplastics are a poorly regulated, cancercausing pollutant in our waters

## **Seven Governors Call on EPA to Monitor Microplastics in Drinking Water**

Published Dec 1, 2025 **CLEAN WATER**

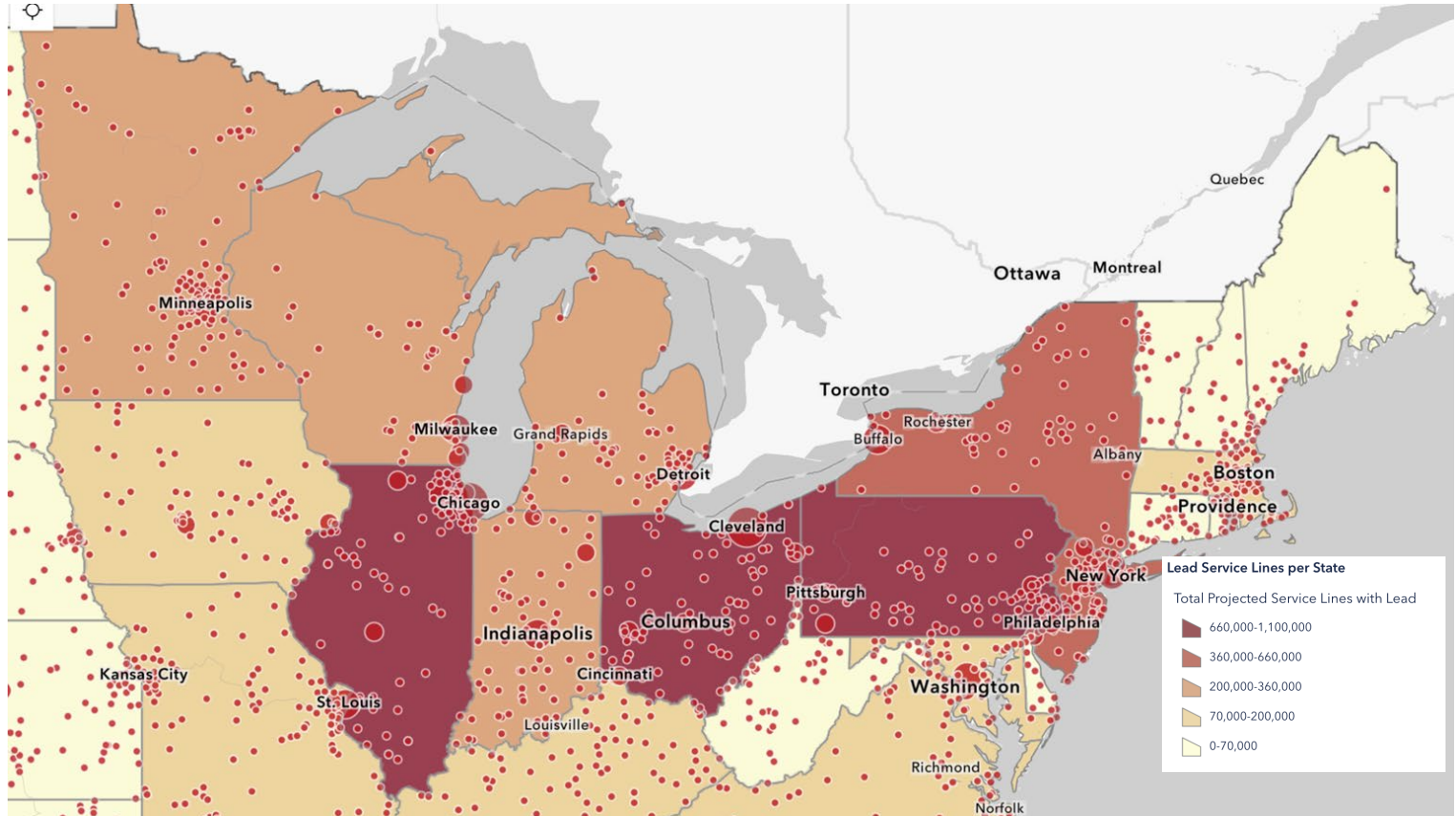
Source: Food and Water Watch



A 1-liter plastic bottle of water contains 240,000 pieces of microplastic

Source: National Institutes of Health

# Environmental challenges : The Great Lakes region has more lead drinking water service lines than anywhere else in the United States



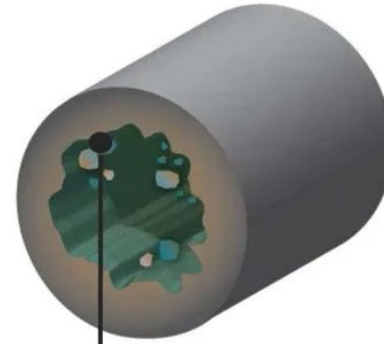
Source: National Resources Defense Council

## Environmental challenges: lead service lines.

Water utilities add orthophosphate to prevent lead from leaching from pipes. Without this corrosion control, lead pipes contaminate drinking water.



A protective layer of **Orthophosphate** forms to prevent pipe corrosion.



Lack of corrosion control allows lead to leach from pipes into water.

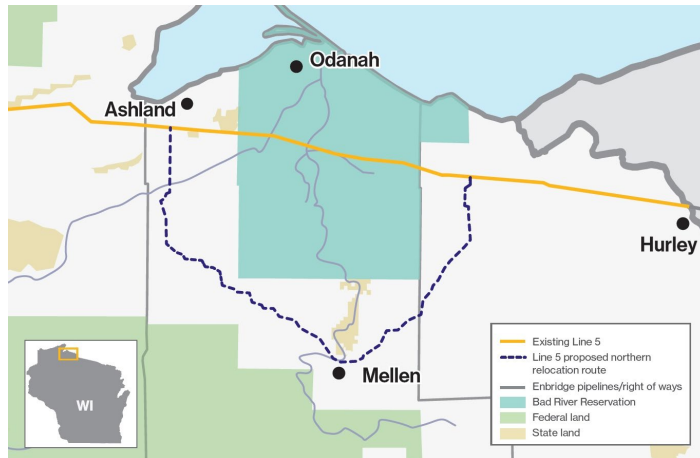
Source: Pittsburgh Water

# EPA Reflections

Bad River Slough, Bad River Reservation

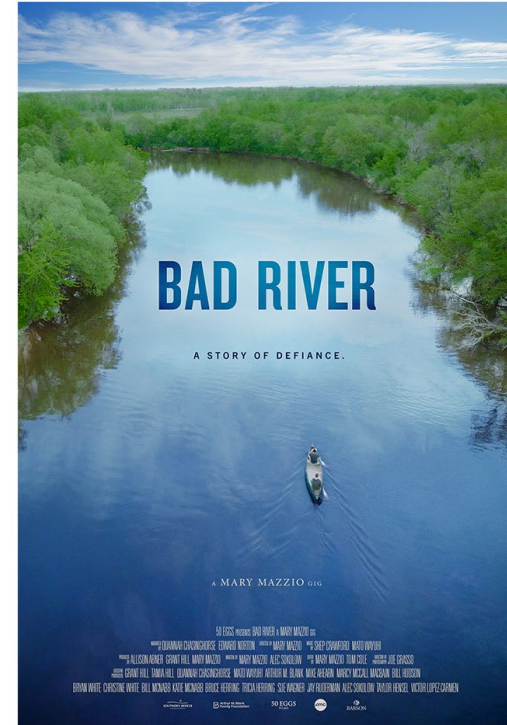


Proposed Re-route of Enbridge Line 5



Source: Enbridge

Available for purchase or streaming on Peacock



Debra Shore  
debra@debrashore.com

