

# The Sixth Great Lake

The Emergency Threatening Michigan's Overlooked Groundwater Resource



Fall 2018

## Michigan's Groundwater Emergency

Michigan is "The Great Lakes State" – but is a poor steward of the sixth Great Lake, the water lying beneath Michigan's ground. The volume of groundwater in the Great Lakes watershed is roughly equal to the volume of Lake Huron. Often overlooked because it is out of sight, Michigan's groundwater is an immense asset and life-giving resource.

Michigan has the most private drinking water wells drilled annually of any state. About 45% of the state's population depends on groundwater for its drinking water. Daily groundwater withdrawals in Michigan total over 260 million gallons for irrigation as well as 64 million gallons from on-site wells for industrial purposes. As much as 42% of the water in the Great Lakes originates from groundwater.

For a resource so vital to human health and the economy, Michigan's groundwater is shabbily treated in both policy and practice, putting public health and the environment at risk.

- Of the 50 states, only Michigan lacks a statewide law protecting groundwater from septic systems – there are an estimated 130,000 leaking septic systems within Michigan's borders.
- Michigan has over 3,000 groundwater sites whose contamination is so severe that laws bar their further use.
- Giant plumes – waves of chemical contaminants moving in groundwater – are spreading across several regions of Michigan. One such plume has fouled an estimated 13 trillion gallons of groundwater.
- Agricultural wastes have polluted drinking water at thousands of sites across Michigan.

## Key Report Recommendations

This is no way to treat our water. Groundwater should not be society's subsurface wastebasket. If Michigan is to rely on groundwater to help meet its future needs, it must reform its groundwater practices – and articulate a groundwater policy.

- Michigan should identify a long-term funding source, such as a voter-approved bond, and appropriate funding needed to clean up over 6,000 remaining sites with contaminated groundwater and no responsible party.
- The Michigan Legislature should end the creation of automatic legal "sacrifice zones," where groundwater use is restricted or banned. Those who contaminate groundwater should be required to restore it – or pay damages to the State of Michigan for polluting the public's water resources.
- The Michigan Legislature should appropriate adequate funding to enable residential well owners to test their well water samples.
- The Michigan Legislature should enact a law requiring all septic systems to be routinely inspected and maintained.
- The Michigan Department of Environmental Quality should publish a biennial report on the state of groundwater in Michigan, mapping and ranking the 100 contaminated groundwater sites that pose the greatest risk to human health and the environment.
- Michigan should aggressively prevent, detect and clean up nitrate pollution resulting from farm practices and assist rural communities in obtaining safe, nitrate-free drinking water.
- Michigan should improve groundwater data collection and reporting. The Michigan Legislature should appropriate adequate funds to enable municipalities, MSU Extension, nonprofit organizations and others to conduct a statewide groundwater education program.

**This report is FLOW's initial review of Michigan's groundwater emergency. FLOW is committed to further research and education on the importance of Michigan's groundwater in both public policy and private practices.**

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FOR LOVE OF WATER

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