Rescuing Lake Erie

An Assessment of Progress

In August of 2014, an unconscionable event occurred. Toledo, Ohio, a major Great Lakes city, had to ban residents from drinking the water it draws from Lake Erie for two and half days. A few weeks later residents of Pelee Island, Ontario faced a similar situation that lasted nearly two weeks. The water was contaminated with microcystin, a liver toxin, from a large toxic algal bloom.

The events captured the attention of national and international news media. Photos of Lake Erie's thick bright green, toxic algae bloom appeared alongside photos of people waiting in long lines to secure safe drinking water. The news of Great Lakes residents without safe drinking water dominated headlines for weeks that summer.

Unfortunately, the incident wasn't without precedent. Carroll Township, just east of Toledo along Lake Erie, suffered a similar drinking water crisis a year prior. And researchers studying the health of Lake Erie have been ringing the alarm bell for years about the deterioration of the lake's health and the resurgence of harmful algal blooms in the lake.

Today, the summer harmful algal bloom forecast has become an annual occurrence. And each summer communities and businesses around Lake Erie worry about and plan for toxic algal blooms. They wonder if the algae will pollute their drinking water, harm the region's vital tourism economy, and prevent residents and visitors from enjoying boating, swimming, and visiting Lake Erie's shoreline.

This situation is unacceptable. Lake Erie – and every Great Lake – ought to be clean and safe for all people, not so polluted that it is a threat to our health, to wildlife and to the regional economy.

The Problem

Lake Erie's harmful algal blooms are caused by runoff pollution. This type of pollution occurs when rainfall and snowmelt wash fertilizer and manure that has been spread on agricultural fields into streams that flow into Lake Erie. These nutrients fuel a bumper crop of algae almost every year that can make the water toxic to fish, birds, and

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people. While runoff pollution can come from many sources, research clearly shows that the majority of the runoff pollution flowing into western Lake Erie is from agricultural lands.

This problem is preventable. Scientists studying Lake Erie report that reducing the amount of runoff pollution will significantly reduce harmful algal blooms and improve the lake's health. Significantly reducing agricultural runoff pollution will have a huge positive return for the health of Lake Erie, and for the people, businesses and communities that depend on it.

A Promise of a Clean Lake Erie

In 2015, under pressure from people across the Great Lakes region, the Governors of Ohio and Michigan joined with the Premier of Ontario to commit to reducing the amount of runoff pollution, specifically phosphorus, flowing into western Lake Erie by 40 percent. Governments of Ohio, Michigan, and Ontario are on the hook to create clear plans that allocate pollution reduction goals to all sources, including chemical fertilizer, manure, municipal wastewater and more.

The commitment made by the Governors and Premier marked a promise to the people of Lake Erie – a promise of a lake nearly free of harmful algal blooms and a significant reduction in risk to people and the lake. The region's leaders knew, as did the people around the region, that the goal was ambitious but also unequivocally needed.

Assessing Progress Toward a Healthy Lake Erie

The Alliance for the Great Lakes and Freshwater Future teamed up to assess progress by Ohio, Michigan, and Ontario toward meeting the long-term goal of significantly reducing runoff pollution and, in turn, harmful algal blooms. The groups reviewed current legislation, regulations, and policy in each jurisdiction and consulted with experts to compile a comparative assessment of progress.

The report establishes a baseline evaluation of state and provincial policy to assess regional progress on development and implementation of policies for reducing phosphorus pollution across Lake Erie jurisdictions. The findings in the report were compiled using a framework developed by the Alliance for the Great Lakes and Freshwater Future. Though not exhaustive, the framework attempts to define and measure what we've deemed the most significant policies needed to achieve phosphorus reduction. It is built around three key policy areas:

1. Reducing phosphorus pollution from agricultural sources;
2. Reducing phosphorus pollution from urban sources; and
3. Monitoring and reporting of phosphorus loadings and reductions.

Consideration was given to both the existence and nature of policies for reducing nutrient pollution, and to accountability and enforcement mechanisms that support implementation of these policies.

Progress by the jurisdictions on these practices has been assessed as mixed, but lacking in terms of the comprehensive approach that is needed to effectively address harmful algal blooms. Notably, no jurisdiction has any policies in place that fully address the critical issues identified.

Non-existent

*Assigned to areas that have no policy directive **or** policy directives are so narrow in scope and application they are, for all intents and purposes, nonexistent (e.g., permitted CAFO-only policies)*

Incomplete

Assigned to areas that have substantive policy directives but lack completeness due to loopholes or limited oversight or enforcement (e.g., winter spreading restrictions)

Complete

Assigned to areas that have substantial policy directives without loopholes and/or significant oversight or enforcement

Agricultural Policies

	Ohio	Ontario	Michigan
Nutrient reduction planning			
Winter spreading			
Cover crop adoption			
Wetland restoration and natural filtration			
Monitoring and enforcement			

Urban Source Policies

	Ohio	Ontario	Michigan
Wastewater treatment			
Septic system management			
Combined sewer overflows			
Green infrastructure adoption			

Watershed Monitoring and Reporting

	Ohio	Ontario	Michigan
Type of phosphorus			
Watershed scale			
Reporting			

A Troubling Lack of Progress

Unfortunately, progress on addressing harmful algal blooms has been painfully slow. Ohio, Michigan, and Ontario have committed to creating clear pollution reduction plans. Sadly the draft plans they have released are vague and lack clear timelines for implementation and enforcement requirements. Additionally, the jurisdictions have not provided the necessary funding and personnel to ensure implementation of the plans.

It is imperative that Ohio, Michigan, and Ontario speed up and scale up progress on efforts to reduce runoff pollution flowing into western Lake Erie. Immediate action is needed to move the region toward a future where clean water flowing off of farm fields and into the lake that is a drinking water and recreational resource for millions of people becomes the norm.

Holding Regional Leaders Accountable

The commitment by the Governors of Ohio and Michigan and the Premier of Ontario, to reduce the amount of runoff pollution, specifically phosphorus, flowing into western Lake Erie by 40 percent is a bold one. But, it is undeniably needed. The people who rely on Lake Erie for their drinking water, jobs and quality of life have a right to expect safe water. Ohio, Michigan, and Ontario must take the necessary actions to deliver on this expectation.

The Alliance for the Great Lakes and Freshwater Future are providing this report as a baseline assessment of the jurisdictions to demonstrate that much more is needed to reach this commitment. This first report shows that while some progress has been made, much more is needed to ensure a clean Lake Erie for generations to come. We will revisit this assessment regularly to track the development and implementation of policies to address harmful algal blooms. And, we will report back to the people who live, work and play along Lake Erie on the progress of efforts by Ohio, Michigan, and Ontario to reduce pollution flowing into the lake.

About

The Alliance for the Great Lakes works to protect the Great Lakes for today and tomorrow. We involve tens of thousands of people each year in advocacy, volunteering, education, and research to ensure the lakes are healthy and safe for all. The Alliance is headquartered in Chicago with offices in Buffalo, Cleveland, Detroit, Muskegon, and Milwaukee. For more information visit www.greatlakes.org.

Since 1996, Freshwater Future has worked to build effective, community-based citizen action to protect and restore the waters and habitats of the Great Lakes region. We provide grants and professional development services to over 2,000 community groups in both the U.S. and Canada, as well as elevate the voices of grassroots groups and local communities in policy debates on the state, provincial, and federal levels. Learn more at www.freshwaterfuture.org.