



RESOLUTION

Adopted October 8, 2026

Encouraging Progress on the Effort to Combat Harmful Algal Blooms in the Great Lakes Basin

Whereas, the Great Lakes, home to approximately one-fifth of the world's fresh surface water supply, are vitally important to the health and well-being of more than 40 million people in the United States (U.S.) and Canada.

Whereas, drivers of a \$9.3 trillion regional economy¹—including shipping, manufacturing, agriculture, energy, recreation, and tourism—depend on safe and healthy water in the Great Lakes basin and its tributary systems.

Whereas, harmful algal blooms (HABs) in the Great Lakes basin, fueled by excessive nutrients from point and nonpoint sources, changing weather patterns, and intensified land uses, threaten the human, economic, and environmental health of the region.

Whereas, HABs are defined as excessive growth of cyanobacteria and algae that can produce toxins that impact health of people, wildlife, and aquatic organisms.

Whereas, these blooms are most prevalent in shallower nearshore areas, bays, and inland lakes, where warming waters and high nutrient availability promote more frequent and severe bloom events.

Whereas, Lake Erie and the Maumee River watershed are especially vulnerable due to shallow bathymetry, long agricultural histories, and concentrated shoreline development that result in increased phosphorus loads contributing to HABs.

Whereas, Saginaw Bay likewise suffers from recurring HABs driven by phosphorus inputs from agricultural runoff and to a lesser extent wastewater treatment systems, producing peak blooms during summer months.

Whereas, Green Bay in Lake Michigan – representing only around 7 percent of the lake's surface area – receives approximately one-third of the total nutrient load entering the Lake Michigan basin, largely delivered by the Fox River, contributing to excess nutrient loads, HABs, and seasonal hypoxia in the bay².

¹ BMO Capital Markets Economic Outlook Report:

<https://gsgp.org/gsgp-news/bmo-capital-markets-releases-great-lakes-st-lawrence-economic-outlook-report/>

² United States Geologic Service, 2009: <https://www.usgs.gov/publications/benthic-biogeochemical-cycling-nutrient-stoichiometry-and-carbon-and-nitrogen-mass>

Whereas, several shallow and nutrient-impacted bays and harbors on Lake Ontario, including Bay of Quinte, Hamilton Harbour, Sodus Bay, Little Sodus Bay, and the Oswego River Harbor, continue to experience shoreline HABs linked to watershed inputs, land-use pressures, and their depth.

Whereas, as recently as this year, HABs are even becoming more frequent in deeper, nutrient poor lakes like Lake Superior; and blooms are appearing in areas like Wisconsin's southern shore; the Twin Ports region near Duluth, Minnesota and Superior, Wisconsin; and appearing sporadically in several localized bays on the Canadian side.

Whereas, HABs can also cause cascading impacts throughout river networks, and can form in streams, rivers, inland lakes and reservoirs, and other aquatic habitats.

Whereas, recent U.S., Canadian, provincial, and state efforts—supported by the Great Lakes Restoration Initiative (GLRI) and undertaken in support of the Great Lakes Water Quality Agreement (GLWQA)—have demonstrated measurable progress, including the prevention of over 2.3 million pounds of phosphorus from entering the Great Lakes between 2015 and 2022, reducing nutrient pressures in Western Lake Erie, Saginaw Bay, and Green Bay³.

Whereas, further progress is demonstrated through declining nutrient trends in certain watersheds, such as the Maumee River, where soluble reactive phosphorus loads have fallen by up to 10 percent, an indication of substantive source reduction⁴.

Whereas, collaborative efforts, such as binational phosphorus loading reduction targets outlined in the GLWQA and Domestic Action Plans, have strengthened U.S.–Canadian coordination and established shared expectations for monitoring, modeling, and meeting long-term nutrient reduction commitments.

Whereas, Canada's vital partnership with the U.S., framed by the GLWQA, and supported by investments such as Canada's Freshwater Action plan, enhances binational collaboration by supporting expanded phosphorus monitoring, modeling, and policy development.

Whereas, Indigenous Peoples, including First Nations and Métis communities in Canada and Tribal Nations in the United States are essential partners to states and provinces in effort to reduce HABs and other pressures present across the Great Lakes region.

Whereas, the Great Lakes Sediment and Nutrient Reduction Program, managed by the Great Lakes Commission in cooperation with U.S. Department of Agriculture Natural Resources Conservation Service, U.S. Environmental Protection Agency (U.S. EPA), and Great Lakes states, has helped prevent millions of pounds of phosphorus and tons of sediment from entering the lakes by supporting erosion-control and nutrient-management projects throughout the basin⁵.

Whereas, emerging technologies – such as algal-interception systems, phosphorus filtration structures, rotating algae biofilm reactors, and wetland-based nutrient interception – are being researched and developed by U.S. Army Corps of Engineers, universities, and state and local partners, and show promise into future capabilities of technology's role in mitigating HAB formation.

³ GLRI Action Plan IV, November 2024 - <https://glri.us/action-plan-iv>

⁴ USEPA Great Lakes Water Quality Agreement Progress Report, 2025 - <https://www.epa.gov/glwqa/status-and-progress>

⁵ Great Lakes Sediment and Nutrient Reduction Program - <https://www.glc.org/work/sediment>

Whereas, despite the progress made, assessments show Lake Erie, Saginaw Bay, Green Bay, and Lake Ontario bays and harbors still have annual HABs impacting their waters and tributaries, and the goal set by the U.S. and Canada to reduce phosphorus loads by 40 percent in Lake Erie still has not been met.

Whereas, continued, long-term progress to achieve nutrient reduction in the Great Lakes will require sustained investment, enhanced binational coordination, stronger lake-based and Great Lakes tributary monitoring networks, and ongoing evolution of restoration strategies.

Whereas, continued transparency in GLRI and the Great Lakes Freshwater Ecosystem Initiative funding allocations will strengthen coordination to allow states and provinces, respectively, to better complement federal priorities, including HAB management.

Whereas, continued U.S.–Canadian collaboration – implemented through practical, binational and domestic nutrient strategies – remains essential to ensure long-term reductions in HABs.

Therefore, Be It Resolved, that the Great Lakes Commission supports providing increased and more flexible funding through the GLRI, to reduce nutrient discharges, improve agricultural conservation practices, reduce erosion, and protect and restore wetlands.

Be It Further Resolved, that the Great Lakes Commission is encouraged by the U.S. EPA effort to collaborate with Great Lakes states to address HABs, and looks forward to further partnership with the agency to continue this work.

Be It Further Resolved, that the Great Lakes Commission supports Canadian investment in nutrient-reduction science and management, including expanded monitoring and restoration activities through the Great Lakes Freshwater Ecosystem Initiative.

Be It Further Resolved, that the Great Lakes Commission urges the U.S. EPA to prioritize GLRI focus areas related to HABs to further bolster nutrient reduction, monitoring, and research efforts in the Great Lakes region.

Be It Finally Resolved, that the Great Lakes Commission recommends that the U.S. Government increase funding, enhance transparency, and strengthen nutrient-reduction strategies to ensure continued progress toward mitigating and preventing HABs across the Great Lakes basin through Domestic Action Plans, technical support, research, monitoring, and public education.

*Adopted at the 2026 Annual Meeting of the Great Lakes Commission, October 6-8, 2026, held in Toronto, Ontario.
The resolution was passed unanimously.*