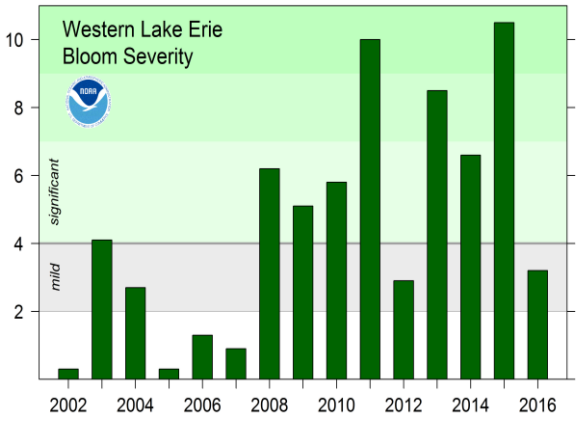
Factsheet: U.S. Action Plan for Lake Erie

COMMITMENTS AND STRATEGY FOR PHOSPHORUS REDUCTION

Problem

Excessive algal growth in Lake Erie poses significant threats to the ecosystem and human health of a waterbody that provides drinking water for 12 million people in the U.S. and Canada. Viewable from space, algae can persist for weeks during summer as blooms are carried by winds and currents eastward through the lake. Recent years have seen record-setting algal blooms and associated "dead zones" – oxygen depleted areas created when algae die and decompose. These events negatively impact the lake's critical $12.9 billion tourism industry and world class fishery.



Images of algal blooms and severity. Credit: NOAA and Ohio Sea Grant.

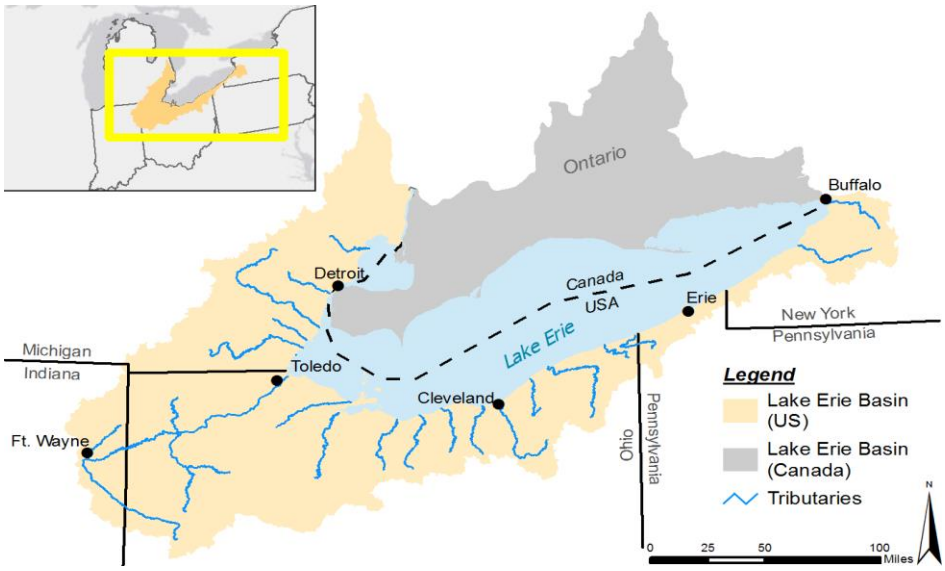
Goals

The U.S.-Canada binational Great Lakes Water Quality Agreement sets goals and timeframes to address excess algal growth in Lake Erie through nutrient management. New phosphorus loading targets were established in 2016. The targets call for significant reductions from the Maumee River, and other sources in the western and central portions of the basin. The U.S. committed to reduce these sources by 40 percent from a 2008 baseline, which is a reduction of over 3,000 metric tons or 7.3 million pounds.

Approach

The magnitude of reduction needed is significant and there is no single solution. Models indicate it is achievable, but will require widespread adoption of conservation practices on millions of acres of privately owned agricultural lands.

While the bulk of the phosphorus reductions will come from sources in Ohio, Michigan, and Indiana, all five of the states in the basin are committed to taking action to reduce nutrient loadings and minimize problems of excessive algal growth in Lake Erie.



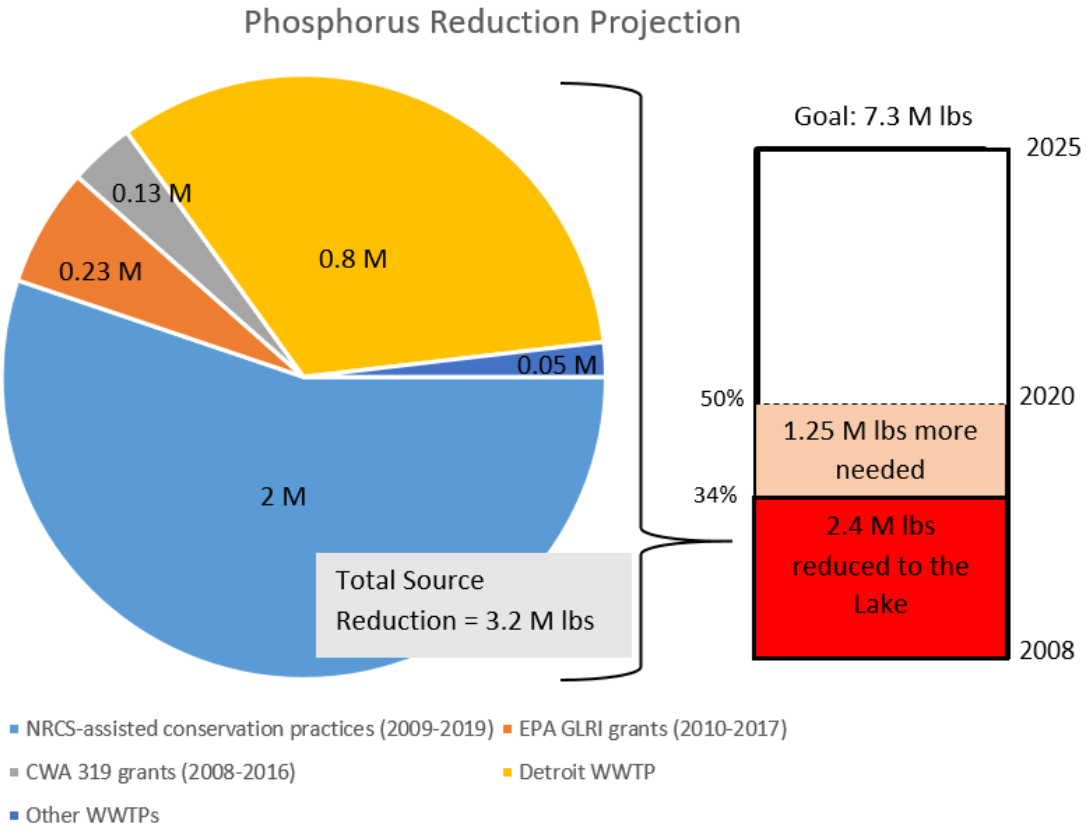
The U.S. Action Plan summarizes the actions federal agencies and states are taking across the basin and provides a mechanism for tracking progress. The overarching strategy is focused on prioritizing efforts to accelerate nutrient management and water management in the region through optimization of existing programs.

Federal, state, and local authorities have numerous regulatory and nonregulatory programs and authorities available to help meet the reduction goals called for by the GLWQA. The individual state action plans describe in more detail the specific phosphorus reduction measures. The state plans also communicate the programs and policies that are suitable for their jurisdictions, including new regulations or stronger enforcement of existing ones. Ohio, for example, has adopted new regulations to restrict the application of fertilizer on frozen or snow-covered ground. Ohio's new rules also require fertilizer applicators be trained and certified in proper nutrient management. No new federal regulations are being proposed at this time.

Variability of the weather and climate poses a major challenge because the majority of phosphorus is delivered from nonpoint source runoff during major storms. It is for this reason the U.S. strategy is not only focused on traditional means of reducing loads through source reductions. **The strategy also advances collaboration in the region to improve water management and develop more effective and innovative approaches for controlling the timing and delivery of phosphorus to the lake**. This will require an adaptive management approach in which management strategies are updated in the future as new environmental data become available and knowledge gaps are filled.

Progress

Based on our current information about the federal and state programs and projects already at work in the basin, the U.S. strategy projects a total phosphorus reduction of around 2.4 million pounds from 2008 levels will occur by 2020, which is 34 percent of the reduction needed. While we are optimistic improvements will be seen by 2020 and 2025, there are many factors that could delay Lake Erie's recovery.



Initial projection showing that 1.25 million pounds would be needed from other federal, state and local efforts in addition to the major categories shown here in order to achieve 50 percent of the reduction goal by 2020.

Engagement

U.S. EPA, in collaboration with federal and state partners, will engage stakeholders in the development of the domestic action plans in August and September 2017 through in-person engagement sessions with targeted stakeholder groups. Please contact Santina Wortman (wortman.santina@epa.gov) for more information or to provide comments on the draft plan. We are particularly interested in suggestions for new and innovative approaches.

The U.S. Action Plan is available for public comment until Sept. 29 and can be accessed here: www.epa.gov/glwqa/. The full suite of U.S., state and Canada-Ontario domestic action plans can be accessed from the GLWQA binational.net webpage: https://binational.net/annexes/a4/.