Financial Incentives to Address Harmful Algal Blooms

Lake Erie is one of Ohio’s crown jewels in terms of economic impact, natural resource value and water supply. Lake Erie is a source of drinking water for 23 Ohio public water systems serving approximately 2.6 million customers. Unfortunately, recreational and drinking water uses have been impaired by harmful algal blooms (HABs) in recent years. Ohio EPA is making funds available to enhance drinking water testing and treatment, as well as reduce nutrient levels in wastewater treatment plant discharges.

Harmful Algal Blooms

A variety of nutrient sources contribute to the formation of blue-green algae, which is naturally found in Ohio lakes, ponds and slow-moving streams. Approximately 80 species of blue-green algae can produce the contaminant known as microcystin. The World Health Organization has determined that microcystin in excess of one part per billion is considered unsafe for drinking water, and Ohio EPA advises local water authorities to follow that standard.

Health effects from exposure could include numbness and dizziness, nausea, vomiting, abnormal liver function, skin irritation or rashes. In early August 2014, the City of Toledo advised residents not to use the water for more than two days due to elevated levels of microcystin in the treated drinking water.

Testing and Analysis at Public Water Systems

Based on recent events in Toledo, it is clear that Ohio public water systems need a quick and cost-effective means to test their source and finished water for the presence of cyanotoxins (microcystin, cylindrospermopsin, saxitoxin). Having the capacity to analyze samples at the public water system rather than sending samples to an outside lab will allow flexibility in monitoring and a quicker response to any potential finished water detections. Given the dynamic and unpredictable nature of cyanobacteria blooms, having this flexibility is critical.

Ohio EPA will make available $1 million in grants to Ohio public water systems to obtain the laboratory equipment, supplies and training needed to test for Microcystin and other Cyanotoxins. Only public water systems that use a surface water source are eligible for the funding, up to $10,000 per system. Funds are available immediately.

Consistent Drinking Water Testing Protocol

Ohio EPA also provided guidance to public water systems on a consistent sampling and analysis protocol for microcystins and will be available to provide additional training. Water systems doing their own sampling will follow the procedures outlined in Ohio EPA’s HAB Response Strategy for public water systems. If a public water system chooses not to purchase a test kit and has a bloom of concern in its water source, Ohio EPA will conduct the sampling on a prioritized basis as described in the HAB Response Strategy.

Public Water System Infrastructure Improvements

In addition, Ohio EPA will make available $50 million at 0% interest for enhanced water treatment infrastructure components as well as back-up water sources. These funds will be administered through Ohio EPA’s Water Supply Revolving Loan Account (WSRLA). The targeted entities are also public water systems that use surface water as a direct source. Priority will be given to water systems in the Lake Erie watershed, and those that have already experienced an algal bloom or a detection of toxins.
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Qualifying projects will include components at water treatment facilities that treat for toxins produced from harmful algal blooms, as well as projects that implement avoidance strategies such as interconnections with other water supplies, new elevated storage facilities and the installation of alternative sources for source water. The 0% interest rate will be available for the portion of the project directly attributable to the treatment or avoidance strategy. Standard, below-market interest rate loan funds will be offered for the balance of a proposed project.

A call for project nominations will occur in the near future and water systems could receive assistance as early as this fall.

Nutrient Reduction from Wastewater Treatment Plants

Ohio EPA will make available $100 million at a 0% interest rate for equipment and facilities that reduce the levels of phosphorus and other pollutants. Priority will be given to public wastewater treatment plants in the Lake Erie watershed or a watershed where Ohio EPA has identified that phosphorus is excessive.

The 0% rate will be available for the portion of the project directly attributable to the nutrient reduction. Standard, below-market interest rate loan funds will be offered for the balance of a proposed project. Priority will be given to public wastewater treatment systems in the Lake Erie watershed or a watershed where Ohio EPA has identified that phosphorus is excessive. Project nominations are currently being accepted through Sept. 5, 2014.

For More Information

More information about these funding options and microcystin sampling at public water systems is available at www.epa.ohio.gov/HAB_funding.aspx