ASSOCIATION OF METROPOLITAN WATER AGENCIES

LEADERS IN WATER

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The Honorable John Shimkus
Chairman
Environment and the Economy Subcommittee
Energy and Commerce Committee
U.S. House of Representatives
Washington, DC 20515

The Honorable Paul Tonko
Ranking Member
Environment and the Economy Subcommittee
Energy and Commerce Committee
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Shimkus and Ranking Member Tonko,

The Association of Metropolitan Water Agencies (AMWA) appreciates the opportunity to submit comments for the record of the subcommittee's hearing on cyanotoxins in drinking water supplies.

Last summer's algal bloom in Lake Erie caused 400,000 people in northwestern Ohio to lose access to drinking water for three days. The event plainly demonstrated the dangers posed to drinking water supplies by nutrient-fed cyanotoxins like microcystin, and highlighted the need for transparent policies to prevent future algal blooms from introducing comparable problems at similarly situated utilities across the country.

AMWA hopes today's hearing will mark the first steps toward a more comprehensive federal policy that provides water utility managers with additional information about public health risks related to microcystin, reduces agricultural nutrient runoff that is a leading contributor to algal blooms, and spurs investment in resources to help communities build resilience to toxic algal blooms into their drinking water infrastructure.

Human Health Effects Information for Microcystin and Other Algal Toxins

Each summer algal blooms develop in the shallow western end of Lake Erie, as algae feed on nutrient-rich runoff that reaches the water body. As the algae multiply and form a green scum on the water surface, they also release cyanotoxins into the surrounding waters. This is what leads to risks to drinking water supplies.

The Lake Erie algal bloom that occurred this past August was concentrated around Toledo's water intake, and led to contamination of the city's water supply by microcystin. Microcystin is a common class of cyanotoxins that, according to EPA, causes human reactions such as abdominal pain, vomiting and diarrhea, kidney damage, and potential tumor growth promotion.[1] But while EPA has included cyanotoxins on the agency's three drinking water Contaminant Candidate Lists (CCL1 in 1998, CCL2 in 2005, and CCL3 in 2009), to this point the lack of

[1] United States Environmental Protection Agency, "Cyanobacteria and Cyanotoxins: Information for Drinking Water Systems," July, 2012. http://water.epa.gov/sci tech/swguidance/standards/criteria/nutrients/upload/cyanobacteria_factsheet.pdf.

standardized analytical methods for individual toxins like microcystin has prevented the contaminant's advancement to the next phase of the regulatory process – monitoring under the Unregulated Contaminant Monitoring Rule (UCMR).[2]

In response to more frequent algal blooms across the country, EPA has stepped up its efforts to develop scientifically sound standardized analytical methods for microcystin and other algal toxins. AMWA believes EPA should continue to act with a sense of urgency in these efforts. Ideally, appropriate analytical methods will be available in time for the agency to include cyanotoxins on EPA's list for monitoring under UCMR 4. Collection of such occurrence data under the UCMR will provide a vital foundation for the additional risk analyses that must be performed in accordance with Safe Drinking Water Act (SDWA) mandates. These analyses will, in turn, properly inform future policy decisions from EPA and other local, state and federal agencies intended to ensure microcystin and other algal toxins do not pose human health risks if they reach drinking water supplies.

When elevated levels of microcystin are detected in public water supplies, the lack of specific information from EPA presently causes utilities to rely on a 1 part-per-billion safe level suggested by the World Health Organization. Newer research is available, however, so AMWA believes EPA should independently evaluate all the latest available science and perform its own rigorous analyses of the potential health effects of microcystin and other algal toxin exposures.

As this process moves forward, we appreciate that EPA is also working on an expedited health advisory for microcystin for dissemination prior to next summer's algal bloom season. In the near term, an advisory, including guidance on potential acute and chronic exposure risks, will help drinking water utilities and oversight authorities establish best practices to prepare for, prevent, and, if necessary, respond to future algal pollution events. Longer term, we expect EPA to carry out an impartial science-based analysis of the contaminant's appropriateness for regulation, subject to the requirements of SDWA.

Policies to Protect Waters from Agricultural Runoff

While defining safe human exposure levels for cyanotoxins is important, the best, and most cost-effective, long-range strategy to protect the public from algal pollution is to prevent bloom-causing nutrients like nitrogen and phosphorus from entering waterways in the first place. Doing so is urgently important, as an analysis of state water quality reports carried out last year by the Healthy Waters Coalition found that 80,000 miles of rivers and streams, 2.5 million acres of lakes, reservoirs and ponds, 78 percent of the assessed continental U.S. coastal areas and more than 30 percent of estuaries in the United States are impaired due to excessive levels of nitrogen and phosphorus.[3] If left unaddressed, these pollutants can find their way to drinking water intakes and cause the type of public health emergency that Toledo experienced earlier this year.

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[2] United States Environmental Protection Agency, "Nutrient Policy and Data: Policies and Guidelines." http://www2.epa.gov/nutrient-policy-data/policies-and-guidelines.

[3] Healthy Waters Coalition, January 28, 2014. http://www.amwa.net/sites/default/files/FarmBillConfLetter_1-28-14.pdf.

Any meaningful reduction in algal blooms must begin with the agricultural sector. While nonpoint runoff such as nutrient-laced agricultural pollution is exempt from federal Clean Water Act regulation, the United States Geological Survey has estimated that roughly 90 percent of nitrogen and 75 percent of phosphorus in U.S. waters originates from nonpoint sources.[4] While subjecting nonpoint source runoff to federal oversight would be the most effective solution, other helpful measures could include policies that discourage over-application of farm fertilizers andincentivize farmers to capture runoff before it leaves their fields. Without these steps, algal bacteria living in warm waters will continue to feed on this unregulated nutrient-rich runoff – thus allowing algal blooms to grow and multiply while fouling the sources of communities' drinking water.

A new Regional Conservation Partnership Program (RCPP) authorized by Congress as part of the 2012 Farm Bill is one policy that could help communities reduce threats related to algal bloom-causing pollution. The voluntary RCPP allows water utilities to partner with nearby farmers to apply for funding assistance to implement "nutrient management and sediment reduction" projects, among other objectives. Backed by this funding, utilities and farmers are incentivized to develop mutually acceptable measures that reduce farm runoff and keep algal-fueling nutrients out of sources of drinking water. But to ensure the success of the RCPP Congress should commit to funding the program while also considering new measures promoting agricultural accountability for nutrient management.

Resources to Help Utilities Counter Nutrient Pollution

When seeking to protect water supplies against the threat of nutrient pollution, utilities should consider a range of response strategies. Some communities, such as Nashville, have largely avoided excessive nutrient build up by working with the U.S. Army Corps of Engineers to employ watershed management techniques such as constant flushing in source water basins. We encourage other water systems to explore similar proactive steps, and urge Congress to fully fund programs – such as EPA's Nonpoint Source Implementation Grants (also known as the 319 Program) – that could help states and communities manage watersheds and preemptively address potential algal growth.

These preventative measures will not always be possible or effective in every situation, so Congress should utilize existing water infrastructure financing assistance programs to help water utilities rid source waters of contaminants. One such project is underway in Columbus, Ohio, where the city is building a $70 million treatment system that will help protect against algal pollution beginning in 2016.[5] Another example of utility investment to combat agricultural runoff is in Iowa, where in the early 1990s Des Moines Water Works built a $4.1 million nitrate

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[4] United States Geological Survey, *U.S. Geological Circular 1225: The Quality of Our Nation's Waters – Nutrients and Pesticides,* 1999. http://pubs.usgs.gov/circ/circ1225/html/sources.html

[5] Arenschield, Laura. "Toledo bearing full brunt of Lake Erie algae bloom." *The Columbus Dispatch,* August 4, 2014. http://www.dispatch.com/content/stories/local/2014/08/04/this-bloom-is-in-bad-location.html.

removal facility to prevent runoff from elevating the city's water above the SDWA standard for nitrate. Last year Des Moines operated the facility for 74 days, with the $7,000 per day operation cost borne by its ratepayers.

Communities that are unable to preemptively fight nutrient build up through source water management practices could more easily finance necessary nutrient removal projects if Congress were to expand access to low-cost water infrastructure funding assistance. This is why it is important for Congress to deliver robust funding for EPA's Drinking Water State Revolving Fund, as well as its new Water Infrastructure Finance and Innovation Act (WIFIA) focused on offering inexpensive loans for large-scale water infrastructure improvements. Strong appropriations for each of these programs will help communities invest in defenses against algal pollution that are necessary to protect the integrity of drinking water supplies and avoid future algal-related water service interruptions.

AMWA thanks you again for holding this important hearing on the threat of cyanotoxins to the integrity of our nation's drinking water supplies. We look forward to continuing to work with you as you examine this issue in the months ahead.

Sincerely,

Diane VanDe Hei
Executive Director

cc: Subcommittee on Environment and the Economy