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May 15, 2019

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Honorable Andrew Wheeler
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Dear Administrator Wheeler:

On behalf of the Local Government Advisory Committee (LGAC), we thank you for the opportunity to provide feedback and recommendations to you and the Environmental Protection Agency on issues of great importance to local governments and communities across the country. As a group of state, tribal, and local government officials we are working with the EPA to help protect public health and the environment. We are learning more on the health effects of harmful algal blooms (HABs) that can cause neurological, intestinal, respiratory and rashes due to the release of toxins from harmful bacteria (cyanobacteria), and it should be monitored closely. We offer the following findings and recommendations to strengthen our partnership to eradicate HABs.

Harmful algal blooms continue to pose a serious threat to our community's drinking water supplies, recreational waters, our citizens' health, aquatic life and our economy; therefore, we are writing to give our perspectives on HABs as local, state and tribal officials. Despite EPA and state efforts, HABs continue to be a major environmental problem in all 50 states. Improving collaboration among federal, state, tribal and local partners as well as developing a coordinated data sharing process would be significant steps in resolving the HAB issue. The EPA could play a leadership role in developing and sustaining intergovernmental partnerships around the HABs issue.

HABs continue to have significant impact on the environment, public health, and our economy. HABs pose increasing threats across the country, especially in the Southeast, Midwest and Northeast. For example, during the Summer 2018, toxic algal blooms spread across both coasts of Florida, prompting Governor Rick Scott to declare a State of Emergency for seven Florida counties due to public health concerns and economic impacts. Massive mats of toxic blue green algae accumulated in fresh water discharges from Lake Okeechobee to coastal estuaries in Martin and Lee counties in 2013, 2016 and 2018. These thick odorous mats not only caused significant recreational and fishery impacts but they also caused documented health and mortality issues for pets. Evidence is also accumulating that point to acute and chronic human health impacts of HABs. One study shows a high correlation between non-alcoholic liver disease in the areas impacted by regularly occurring HABs.

Frances Eargle, DFO

In the Gulf of Mexico, abnormally large and long-lasting red tide algal blooms devastated the Florida Gulf Coast with nearly 9.2 million pounds of marine life including dolphin, sea turtles and manatee that were killed and washed ashore. Red tide has created \$82 million in economic losses to the seafood, restaurant and tourism industries each year in the U.S., according to the National Oceanic and Atmospheric Administration. The Florida Gulf Coast was hit particularly hard in 2018 as the red tide persisted for most of the summer along Southwest Florida beaches which derive a large part of their economy from tourists visiting those beaches.

In May, 2018, city officials in Salem, Oregon had to issue a 'do-not-drink' health advisory following the detection of low levels of cyanotoxins in its city's (treated) drinking water. The health advisory was for vulnerable populations, such as children under the age of six, nursing mothers and those with weak and compromised immune systems.

In the Midwest, in general, lakes become shallow due to sedimentation, agricultural run-off continues to feed cyanobacteria (cyanoHABs), and pose more concern for the people who depend on these lakes for drinking water supplies and recreation.

For example, in Kansas, HABs pose significant threat to human health, wildlife, livestock, and domestic animals from ingesting water at public lakes contaminated with HABs and increasingly these public waters are closed to recreation (e.g., Mead State Fishing Lake, Marion Reservoir, and large parts of Milford Reservoir).

In addition, several drinking water supply lakes in Kansas have been dredged to address siltation problems. That sediment has been impounded, but proposals are being studied to remove sediment by moving it around the impoundment dam (e.g., Tuttle Creek Lake) into the downstream waterways.¹ Such actions have the potential to significantly increase HABs in those waterways and increase the complexity and cost of drinking water treatment operations to remove or treat the HABs, while helping with reservoir storage capacity restoration.

In the Northeast, HABs are extensive and increasing in magnitude on an annual basis. HABs can cause serious health effects and even death. On the macro level, the cause of the majority of outbreaks is attributable to nutrient pollution and increasing water temperatures. Nutrients enter water bodies from multiple point and nonpoint sources. While the reasons for HABs outbreaks vary, most if not all sources of nutrients include runoff from development including roads, parking lots, lawns, athletic fields, building, industrial facilities, wastewater treatment plants, septic systems, agriculture and streambank erosion.

Total phosphorus has long been regarded as the primary limiting nutrient for algal growth in fresh waters and is a major contributor to coastal water outbreaks. As a case in-point, the total phosphorus load to Lake Champlain from all sources mentioned here and others was estimated to be 922 metric tons per year during a 2001-2010 modeling period cited in the lakes' recently updated TMDL.

¹ <https://kwo.ks.gov/projects/tuttle-creek-streambank>

Again, the problem of HABs in the Northeast is extensive and getting worse. Waters both coastal and fresh are closed for days on end and in many cases several weeks in succession resulting in closure that eliminates the entire summer season. Permanent and seasonal rental properties experience cancellations and subsequent loss of revenue is substantial. Ocean and lakeside communities are now reassessing properties and lowering values due to the persistent presence of unhealthy and odorous cyanobacteria toxins present. Testing capability is stressed to limits where the public is outraged at the risk posed by potential cyanotoxins. The focus of efforts in the Northeast can be defined as communicating primarily as much information as possible about the human health and environmental concerns as each new outbreak is reported and monitored thereafter.

The LGAC recommends that EPA consider the following issues in regard to lake management and work with the Corps and States to review, consider and implement:

- For research, there is a need for input on converging lines of research and evidence (e.g., remote sensing, nutrient measurement/management, multiple types of inquiry) For example, the Kansas Biological Survey has a research tank farm in which they put water from different lakes to measure influences on algal growth and behavior on a lake/reservoir basis.
- For monitoring, there is a need for more comprehensive monitoring programs. We need more pro-active measurements of water conditions on a continuous basis (i.e., pre-algal bloom, algal bloom, post bloom).
- For long-term monitoring, we need increased monitoring of event- based conditions so that that they can aide research efforts (e.g., coring of sediment to trace history of algal blooms within reservoirs, note variations in data based on flood vs normal vs drought years, history of watersheds).
- For monitoring, we also need regular bathymetric measurements of sediment levels and coring to determine history of nutrient and algal levels in different areas of lakes/reservoirs. The Kansas Biological Survey data from coring Kansas reservoirs and their experimental tank farm may be starting points for EPA and state researchers to look for commonalities and differences to HABs growth given different water, run-off, chemical, and other conditions.
- For lake management approaches, if dredging is too expensive or impractical and plans to flush sediment downstream from the lakes/reservoirs are considered, more data is needed on impacts on downstream water treatment plant operations (e.g., prospective changes in algal levels, heavy metals/chemical levels, etc. of water to be treated).

The LGAC wrote a letter to EPA Administrator Gina McCarthy in December, 2015 letting her know of our concerns and putting forth our recommendations. We urge EPA to review these recommendations and consider them in regard to HABs.²

We also put forward these and additional recommendations regarding HABs:

- ❖ EPA and state efforts to slow run-off are being effective, but the residual fertilizers in the rivers, streams, and lakes continue to stimulate algal growth, therefore, there is more work to be done;

² https://www.epa.gov/sites/production/files/2016-02/documents/lgac-toxicalgals_blooms-dec9-2015.pdf

- ❖ Regional EPA Office staff members should identify the appropriate regional Office of Research and Development (ORD) research labs and projects for funding and other assistance. We urge EPA to provide financial and other support for research on state-specific variants of the harmful algae, especially research at state and university laboratories, as necessary. Especially important is coring and analyzing the cores from lakes, rivers, and streams to determine the life and evolution of the algal threat;
- ❖ EPA, through the Regional Office staff members, can also support multiple algal treatment and nutrient reduction research projects that address different types of lakes, water temperatures, salinities and treatments to eliminate or, at a minimum, control algal growth and blooms;
- ❖ EPA through its own laboratories and through grants to others can identify more cost-effective ways to remove algae at drinking water treatment plants;
- ❖ While we commend the EPA on its recent announced partnership with the U.S. Department of Agriculture to develop market-based incentives to reduce nutrient run-off, we recommend that the EPA enter into a similar agreement with the Corps of Engineers to work on coordinated management plans to reduce HABs and excess nutrients for Corps regulated waters;
- ❖ Above all, we need to make sure there is a federal safe drinking water and recreational standard when impacted by harmful algae blooms and that aquatic life and fish consumption (for those impacted communities such as tribal communities that depend on fish as a major dietary staple) is safe;
- ❖ We also urge EPA to consider updating risk communication outreach in regard to HABs especially for local governments and the public to better communicate the public health concerns;³ Such communications should be made through the appropriate state and tribal regulatory agencies and/or the public health agencies.


³ <https://www.ecos.org/documents/state-level-risk-communication-of-pfas-and-habs/>

- ❖ The LGAC urges EPA to share current risk and health data from the science community and to work with the Center for Disease Control's (CDC) Toxics Substances and Disease Registry (ATSDR) to share health and prevention data for the public;
- ❖ The LGAC encourages the EPA to share science data on changes in ambient air and water temperatures and its effect on producing HABs. By identifying or developing a coordinated data repository such that information available from state, tribal, university, and private-sector laboratories can be accessed by all appropriate HABs researchers. For example, the Kansas Biological Survey has developed a data platform that permits researchers to access and incorporate water quality data from each state agency and the Corps of Engineers, despite differences in how the data is entered in each agency's database. This may serve as an inexpensive model or means of expanding dataset analysis to other federal and state databases;
- ❖ The LGAC encourages the EPA to share science data on ambient temperature and weather patterns and its effect on producing HABs; and,
- ❖ To prevent HABs, and further exposure to toxins released by HABs, we urge EPA to ensure full implementation and enforcement of current statutory rules under the Water Pollution Control Act or Clean Water Act (Sections 312, 401, 402 and 404) especially in affected areas like Alaska, Florida, Kansas and the Midwest.

In summary, EPA Regional offices and staff are well positioned to identify regional researchers and the most valuable projects that warrant increased investment of funds, personnel, focused attention; and research specific to understanding the specific growth patterns of HABs of different types of lakes, temperatures, etc. as necessary.

The LGAC appreciates your leadership and collaboration with local, tribal and state partners. We offer our continued assistance to you, Administrator Wheeler, and your team at EPA as you move forward in addressing these important environmental, aquatic and public health issues.

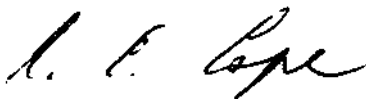
Sincerely,



Bob Dixon
Chair



Ms. Susan Hann
Chair, Water Workgroup



Dr. Robert Cope, DVM
Chair, Small Community Advisory
Subcommittee(SCAS)