

Testimony for the record

Submitted to: Chair Harkham and Members of the Senate Environmental Conservation Committee

For the hearing: To evaluate the efficacy of the state's monitoring and management of harmful algal blooms (HABs) and to examine potential legislative solutions.

Date: Wednesday, May 21, 2025

From: Jill Jedlicka, Executive Director of Buffalo Niagara Waterkeeper

Thank you for inviting us to speak on this important issue. Below is the written testimony of Buffalo Niagara Waterkeeper (BNW). This testimony is based on our experience within the Western New York region.

Buffalo Niagara Waterkeeper, based in Buffalo, NY and with a jurisdiction of nearly 3,000 square miles along the shores of Lake Erie, has been the guardian of Western New York waterways and the Great Lakes for over 35 years. Over the last five years, as we have elevated our time and attention on monitoring HABs in local waterways, we are seeing an increasing number of blooms, earlier in the season, lasting longer, and containing newly identified organisms. We cannot say for certain that HAB occurrences are increasing, or if this is a factor of increased monitoring, but the fact remains that the number of HABs reported in Western New York has significantly increased over the last few years.

Below, organized by questions, are BNW's answers to the four focus questions.

1. How well are HABs being monitored and tracked across the state?

The NYS DEC monitors, reports, and manages HABs for all of NYS out of the central office in Albany and does not have a local presence within the WNY region (Region 9). Additionally, to our knowledge, the NYS DEC is not conducting proactive monitoring of local waterbodies (or those of wider regional significance such as Lake Erie) unless the waterway is deemed to be of special concern or there is a demonstrated concern or threat to a public drinking water supply. None of these waterways exist within WNY to our knowledge, with the exception of Chautauqua Lake. DEC also does not undertake field analysis or microscopy to confirm a HAB but rather relies on reports submitted by local practitioners, like our organization, to inform the agency and on desktop analysis and aerial imagery to confirm the bloom. If a bloom is confirmed, the DEC uses a GIS-based mapping system to track and report it to the public. There continues to be incomplete communication back to the community, as currently, neither the municipality nor the entity that submitted the report is alerted that a HAB has been confirmed. The site is simply added to an online statewide HABs map, which is sent out in an email weekly in the summer (HAB Season).



The current process and system used by the State to identify and track potential HABs is flawed in several ways, leaving people, pets, wildlife and communities vulnerable to serious health risks. As stated above, the lack of an official and proactive monitoring program within the state, coupled with the lack of a local point of contact within the State's regions, means that HABs are only reported when a citizen, municipality, hired consultant, or non-profit watch-dog group like ours reports one. Any other HAB at the regional level is potentially missed.

The electronic system that DEC uses for reporting is also difficult to navigate. It requires New York residents to (1) know the HAB map exists and (2) navigate the DEC website to find it, read it, and understand it. Through our first-hand experience, that website is neither intuitive nor effective for the average person to use or understand.

NGOs play a key role in filling the gap left by the lack of a NYS program and presence in HABs monitoring and detection. Each year, BNW monitors and collects samples, alerts the public, relays information to the appropriate agencies in real time, and conducts microscopy to determine if the production of cyanobacteria is a possible threat from the identified species of algae. For example, last July, a HAB was identified in Green Lake, a popular swimming and public recreation property in the Town of Orchard Park. Even after the HAB was confirmed, there was no notification to the Town of Orchard Park by any state agency, and families were still allowed to swim and recreate there. Only after BNW posted the alert to Orchard Park residents on social media did the Town learn of the confirmed HAB and took immediate steps to contact and work with BNW, and to close the lake. Without BNW's communications, the lack of notification and communication between the state agencies and the Town of Orchard Park could have had a severe impact on public health.

It should be noted that since BNW has been filling this identification and communications gap left by the state agencies, and citizens often call or report suspicious blooms to BNW rather than the regional DEC office. **It is unsustainable for a non-profit to annually self-fund services that are of vital importance to public health.**

Over the summer of 2024, BNW highlighted and monitored five waterways of concern in the Niagara River/Lake Erie watershed. We reported blooms in three of those five waterways to the NYS DEC and alerted the public of confirmed blooms for a total of approximately 20 reported HABs within local WNY waterways, including the waterways of Ellicott Creek, Tonawanda Creek, and Green Lake (Smokes Creek).

2. Where have policies been successful, and\ where are improvements needed?

In recent years, DEC made a revision to its HAB policy to include *Euglena* as a potential HAB. This has simplified communications, ensuring that the public doesn't need to differentiate between types of blooms in determining whether the health of their children, pets, and families is at risk from contact with a specific waterbody. Additionally, a recent switch to utilizing aerial



imagery as a tool in the NYS toolbox has broadened the reach of the NYS HAB alerts and makes it easier for local communities to communicate with the public in a consistent manner.

Generally, improvements are needed in external communication for highly recreated waters that are not necessarily designated swimming beaches, in rapid response to HABs, and in raising public awareness. Examples of specific recommendations for improvements include:

- Rapid response improvements: DEC has a highly functional and responsive spills reporting program. The HAB response could mirror a spills response process where there is a hotline for the public to call, and a person is then deployed to the site to investigate.
- Improvements in messaging: DEC should utilize social media for more messaging on HABs, particularly with regard to highly recreated waterways, and rely more heavily on regional staff for real time response. DEC used to have an informative trifold printed brochure available and BNW would share that at outreach events. The brochure is no longer printed, requiring the local distribution of less useful materials, and a reliance on NGOs like ours to produce and disseminate educational information.
- Appoint regional points of contact: Currently, a HAB report is submitted to a nameless email address in DEC with no field verification or local connection to waterways. A regional contact would allow for quicker and more efficient response, ideally including some NYS supported assessment and communications to the public.
- Financially support local NGOs to conduct rapid response, communication, and public education if NYS does not intend to perform the critical human health services of proactive HABs monitoring and response. Currently, BNW is often on the front lines of offense and defense, proactively monitoring area waterways, alerting public landowners about a bloom, and requesting and coordinating with them to post signs alerting the public to stay out the water. In recent years BNW has professionally printed its own signs for a widely used City Park in the city of Niagara Falls that experiences annual HABs (Hyde Park).
- Consider an improved system for displaying historical HAB occurrences on the NYS DEC website. Each year, the seasonal HAB map is removed, and the information is archived in a chart format. The list format is not easy to visualize, does not contain historical trend information about HABs, and is, at times, inaccurate. At least one bloom reported by BNW and confirmed by DEC in 2024 does not appear on the list.
- Consider adding a microscopy expert to assist municipalities and the public in identifying algal species and determining if blooms present a potential threat by cyanobacteria to human health. Currently, BNW relies on assistance and loose partnership with local universities (Daemen and SUNY ESF) to verify algal species after BNW's initial microscopy work.
- Designate a forum for municipalities to reach out to the state for support for a targeted or specific problem rather than directing inquiries to a generic and broad email.



3. What are the most promising techniques and technologies to reduce or eliminate HABs?

In BNW's experience, techniques and technologies are hyper dependent on specific waterway conditions. They range from low cost (barley straw) for a small waterbody (discrete, ponded), mid-scale projects like installing riparian buffers along agricultural fields, streams, and golf courses to reduce runoff and nutrient contributions to streams, to large scale projects like sonic disruption, or management of flows in artificially controlled systems as band-aid solutions. Short-term solutions like bubblers can help increase flow and oxygen to a waterbody but do not address the source of the HAB. The only viable long-term solution to eliminating HABs is to continue monitoring and research around the occurrence of blooms and to mitigate the source of the nutrient load. Outside of these techniques, increased public education about factors that contribute to HABs is needed.

4. How is the state supporting municipalities, lake associations, farmers, and other stakeholders in fighting HABs?

Within WNY there are not a lot of examples of the state supporting the entities mentioned above. The community of Chautauqua Lake is working directly with DEC to help develop a strategy and action plan for the management of nutrients, including development of a Total Maximum Daily Load (TMDL). Soil and water conservation districts do get funding to address agricultural practices, but these projects are not necessarily directly connected to HABs prevention. The majority of communities in our Niagara River/ Lake Erie watershed do not have the resources, capacity, expertise, or forums to coordinate or address HABs in known waterways, or any early warning systems and processes to access when there are newly discovered HABs within their municipality.

We appreciate the opportunity to provide examples from our direct experience in Western New York and are happy to continue supporting the committee in whatever way is most needed.

Respectfully submitted,



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Executive Director