

May 16, 2025

Senator Rachel May

Chair, Senate Environmental Conservation Committee
New York State Senate
State Capitol
Albany, NY 12247

Dear Senator May and Esteemed Committee Members,

On behalf of Community Science Institute (CSI), I respectfully submit this written testimony for the upcoming public hearing on May 21, 2025, to evaluate the efficacy of New York State's monitoring and management of harmful algal blooms (HABs).

CSI is a 501c3 nonprofit and New York State Department of Health-Environmental Laboratory Approval Program (NYSDOH-ELAP ID# 11790) laboratory. Since our founding in 2000, CSI has worked to inspire and empower communities to safeguard water resources by cultivating scientific literacy through volunteer water quality monitoring, certified laboratory analyses, and education.

Since 2018, CSI has led the Cayuga Lake Harmful Algal Bloom Monitoring Program in partnership with the Cayuga Lake Watershed Network, Discover Cayuga Lake, Tompkins County Whole Health, Seneca County Health Department, Cayuga County Health Department, and local volunteers. This program collects actionable data on cyanobacterial blooms, protects public health, and disseminates timely bloom information and test results.

During the NYS Department of Environmental Conservation (NYSDEC)'s official HABs monitoring season, approximately 100 trained CSI volunteers patrol designated shoreline zones on Cayuga Lake at least weekly. When a HAB is observed, volunteers report it to CSI and collect samples for analysis. CSI's lab determines cyanobacterial composition, chlorophyll *a* concentration, and microcystin toxin levels. Reports and results are published on our public HABs database and submitted to the NYHABs system and local health departments within hours. The Cayuga Lake HABs Monitoring Program provides a valuable educational opportunity to the volunteers who participate and allows them to become ambassadors of HABs knowledge in their communities. Our partners at the Cayuga Lake Watershed Network further this effort during the monitoring season through their weekly HABs newsletter which reaches over 1,800 subscribers.

Our community-based monitoring program offers a unique blend of data collection, public engagement, and education. However, volunteers frequently express concern that, despite years of diligent monitoring, HABs appear to be worsening. Many wonder whether their efforts will translate into meaningful action and long-term prevention.



Beyond our volunteer program, CSI's lab supports the community through fee-for-service water testing, including for residents and businesses using untreated lake water via shoreline or "beach" wells. These water sources are particularly vulnerable, as microcystins are difficult to remove without advanced treatment. We have heard growing concerns about the safety of drinking water and the economic impacts of beach closures, lost tourism, and cancelled recreational activities. Indeed, CSI staff have received several calls from potential lake visitors wanting to know whether it is safe to vacation on Cayuga Lake due to HABs.

While CSI's focus is on Cayuga Lake, the challenges we face are shared across the Finger Lakes and other regions of New York State. Below we offer the following recommendations to strengthen state monitoring and to prevent and mitigate HABs.

Recommendations for Strengthening State HABs Monitoring

- 1. Enhance Coordination Between State Agencies and Community Organizations:** NYSDEC alone cannot effectively monitor the state's thousands of lakes, ponds, and reservoirs for HABs. Strengthening partnerships with organizations like CSI—who possess technical expertise and volunteer capacity—can improve both monitoring coverage and data integration. We urge NYSDEC to take a more active leadership role by facilitating regular meetings among local monitoring groups to encourage collaboration, share best practices, and enhance statewide data consistency and quality.
- 2. Increase Funding for State and Community-Led Monitoring Programs:** Adequate, sustained funding is critical for both NYSDEC and community-based organizations. Additional resources would allow the state to hire more staff to coordinate programs, manage incoming HAB reports, and engage with local partners. Community-led programs also need funding to support staff, maintain lab and field infrastructure, and ensure consistent, high-quality data collection.
- 3. Expand NYSDEC's Official HABs Monitoring Season:** NYSDEC currently monitors HABs from July through September, yet CSI has documented blooms in June and October for several consecutive years. For example, in 2024, we received a HAB report as early as June 3 and documented 17 HABs in October. Training sessions for volunteer groups, which typically occur in late May or June, are too late to fully prepare for the early start of the bloom season. Expanding the official monitoring window will better reflect the on-the-ground reality and support timely detection and response.
- 4. Establish a Comprehensive HAB-Related Illness Tracking Program:** Currently, there is no coordinated system in New York State to collect data on human health impacts caused by HABs, despite growing concern from communities and healthcare professionals. Understanding the true public health burden of HABs is essential for informed decision-making, targeted mitigation, and effective resource allocation. Therefore, we recommend that a program for tracking illnesses and health outcomes related to HAB exposure be created and implemented. Without such data, New York remains underprepared to address the human health dimension of this growing environmental crisis.

Recommendations for Preventing and Mitigating HABs

1. **Increase Support for Soil and Water Conservation Districts:** These small but vital entities work directly with landowners to implement best management practices (BMPs) that reduce nutrient and sediment runoff that contribute to HABs. Greater investment in their staffing and technical capacity is essential to expand implementation of proven practices.
2. **Enhance Incentives for Higher Tiers of the Agricultural Environmental Management (AEM) Program:** While over one-third of New York farms participate in the AEM program, many are engaged at lower tiers that focus on assessment rather than action. Providing financial and technical support for farms to progress to Tiers 4 and 5—where BMPs are actually implemented—will yield more tangible benefits for water quality.
3. **Update and Uphold Watershed Rules and Regulations:** Voluntary, incentive-based programs like the AEM program, should be balanced with regulations such as those included in community-specific Watershed Rules and Regulations (WRRs). While over 250 New York communities have WRRs, many are outdated and lack the strength to address today's water quality challenges. The resistance of NYSDOH to approve updated WRRs for the Owasco Lake watershed (which were drafted in collaboration with NYSDOH) highlight the need for a more supportive state process. Updated WRRs empower communities to proactively safeguard their water resources from local threats like HABs, and the State should uphold and facilitate—not hinder—this essential tool.
4. **Prioritize Prevention and Mitigation Over Remediation:** Prevention efforts, particularly those targeting nutrient loading and addressing climate change, should be the state's primary focus. While remediation technologies can play a role, they should be viewed as interim solutions while long-term land-based prevention strategies take effect.

CSI remains committed to supporting New York State's efforts to protect water resources through collaborative, community-based science. We appreciate your attention to the escalating challenge of HABs and urge the committee to adopt policies that enhance coordination, expand monitoring, and prioritize prevention.

Thank you for considering our testimony.

Respectfully,



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Community Science Institute