

Cyanobacteria Plan Advisory Committee Inaugural Meeting

DRAFT Meeting Minutes

October 13, 2022, 9:00 AM – 12:00 PM

Room 208C, NHDES, 29 Hazen Dr., Concord, NH

Members Present

	Representing
Kristin Conti	Drinking Water Suppliers
Doug Darling	Tucker Pond Association
Scott Decker	Fish and Game Department
Laura Diemer	Environmental Engineers
Michelle Farnham	NH LAKES
Sara Holland	Lakes Management Advisory Committee
Don Kretchmer	Environmental Engineers
Abby Mathewson	NH Department of Health and Human Services
Amanda McQuaid	University of New Hampshire
David Neils	New Hampshire Department of Environmental Services
Rep. Andrew Renzullo	New Hampshire House of Representatives
Tom Shevenell	Volunteer Monitor of Lake Water Quality
Inga Sidor	Veterinarians
Patricia Tarpey	Lake Association
Michele L. Tremblay (by phone)	NH Rivers Council
Senator Ruth Ward	New Hampshire Senate

Members Absent

Charles DeCurtis	The Nature Conservancy
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NHDES Staff Present

Michele Condon	Beach Inspection Program
Ted Diers	Assistant Director of the Water Division
Kate Hastings	Cyanobacteria Harmful Algal Blooms Program Coordinator
Erin Holmes	Watershed Bureau Administrator
Nisa Marks	Watershed Coordinator

Guests Present

Rep. Rosemarie Rung	New Hampshire House of Representatives
Gaylon Beach	
Cole Beale	
Laura Colcord	
David Packard	
Mike Rossetti	
Bree Rossiter	

- 1) **Welcome and Introductions:** David Neils opened the meeting at 9:00 AM. NHDES Commissioner Robert Scott thanked members of the committee for their service.
- 2) **Purpose of the committee and report:** David Neils provided an overview of HB1066, which prompted formation of the committee. He described that the purposes of the cyanobacteria plan are to:
 - a. understand the status, impacts, and risks of cyanobacteria blooms in New Hampshire waterbodies;
 - b. identify what is needed to prevent, avoid, and control blooms; and
 - c. recommend ways to improve coordination among stakeholders and the communication of health risks from blooms.

NHDES will prepare the plan pursuant to HB1066. Input from the committee will be particularly important for developing and prioritizing a needs assessment. The plan also will identify the resources needed to accomplish actions in the plan.

The enabling legislation provided NHDES with \$30,000 to support plan preparation. NHDES intends to issue contracts to fulfill two needs. One contract is intended to increase scientific understanding of bloom toxicity in New Hampshire. The second contract will fund an outreach study to solicit stakeholder input about unmet needs for bloom prevention and control in New Hampshire. David described that this contract will complement the input gathered from this committee.

Michele Tremblay asked if the outreach approach will include volunteer monitoring programs and suggested that a training be developed for existing volunteers. David described that the outreach funds will be used to solicit input on actions that should be in the plan, but that volunteer monitoring could be one idea incorporated into the plan.

- 3) **Description of NHDES's approach:** Ted Diers thanked members for volunteering their expertise. Ted described the current NHDES cyanobacteria program as largely reactionary, and that NHDES would like to use this plan to develop a more proactive approach to addressing cyanobacteria issues.

Ted described that this committee takes a new, unique approach. Unlike legislative commissions, this bill charges NHDES with creating a plan and gave NHDES resources and the expertise of this committee to help agency staff do so. NHDES staff will present to the committee, listen to feedback and additional ideas, and prepare material for subsequent discussion and approval by the group, but staff will be responsible for developing the draft plan. The report's recommendations will become actionable. Ted welcomed feedback from committee members as the process unfolds.

Nisa Marks described logistics for the committee's meetings. Meetings require an in-person quorum of at least nine members and will be scheduled based on polls of member availability. Meeting minutes will be prepared and posted on the committee's website, along with other meeting materials. Meetings are open to the public. NHDES encourages interested members of the public to attend virtually due to limited room size.

- 4) **Report Outline and Timeline:** David Neils gave an overview of the planned timeline for the committee. Today's meeting included an overview of common cyanobacteria. The second committee meeting will focus on NHDES's existing program and areas for improvement. The following meetings will focus on developing a needs assessment that staff will use to develop the draft plan. By February or so, the committee will be asked to help prioritize the identified needs. Results from the two contracts for research and stakeholder input will be presented to the committee once available. NHDES staff will draft the report through spring, with the committee reconvening to provide feedback on the draft in June or so. The committee will be provided a revised, final report by October for approval. The committee supported the approach described by David.

David presented a draft outline of the report for the committee's consideration. NHDES's objective is to have a concise report oriented towards next steps. The report will include a statement of purpose and an overview of cyanobacteria, followed by a needs assessment. The proposed needs assessment includes monitoring; education and outreach; coordination with external partners; lake management (prevention and remediation); policy and funding; and research. The committee will be critical for assisting with the needs identification part of the report.

Ted Diers pointed out that we currently lack good methods for understanding the efficacy and counterindications of many lake treatment options. Don Kretchmer described the toolkit for lake management as incomplete, fast-evolving, and site-specific. Patricia Tarpey asked for guidance on what residents can legally do relative to lake treatment, such as purchasing remediation products online. Kirstin Conti seconded the concern over unregulated citizen action for lake management on water bodies that serve as drinking water sources. Legal/regulatory concerns will be added to the outline. Watershed management plans will also be discussed in the plan.

Ted mentioned that the Inflation Reduction Act includes some money for emerging contaminants, including cyanobacteria. He suggested that the conversation about funding should consider both existing funding sources and any need to create new ones. David said that research needs will focus on gathering New Hampshire-specific information. Each identified need will evaluate the need for immediate changes to the NHDES program, additional resources, legislative action, and external partnerships.

Doug asked that the impact of cyano blooms on property values be included in the overview of the cyanobacteria in the report.

Sara Holland asked if NHDES will defer taking a position on cyano-related bills that arise while the committee is doing its work. Ted said that NHDES will be updating the governor on the committee's work, but that NHDES does not wish to preclude good ideas so cyanobacteria bills will go through NHDES's standard process for deciding on a position. Doug described that there are some clear needs and suggested there is no reason to wait on taking action on them. Representative Renzullo pointed out that the committee will file a report by Nov. 1, 2023, which would allow for action on 2024 bills.

Laura Diemer mentioned the need for a flow chart of the various programs and organizations that are involved both internally and externally, that can show which actors are involved in which action items in the report.

- 5) **Overview of Cyanobacteria:** Amanda McQuaid presented a broad overview of the science of cyanobacteria. Blooms are diverse in appearance. It is not possible to tell how toxic a bloom is from the bloom's appearance. Cyanobacteria abundance, with some exceptions, is driven by high levels of nutrients (especially phosphorous), warm temperatures, thermocline stability, and low light. Activities in the watershed affect nutrient dynamics and therefore bloom likelihood. There are many toxins associated with cyanobacteria, with diverse effects on public health. Toxin analysis requires expertise, funding, and lab equipment, as well as knowing what toxin(s) to test for. The scientific community is still discovering new toxins, and only a few have regulatory guidelines established to guide exposure. Toxins also vary by site.

Treatment of drinking water varies by toxin and is site-specific. Boiling and filtration do not remove the toxins. Don Kretchmer mentioned that none of the drinking water treatments are cheap or easy. Kirstin Conti said there is a regulatory element to approving new drinking water treatments.

Amanda described the risks to dogs, both in drinking lake water and in grooming themselves after swimming in a bloom. There are also effects to fish and wildlife through the food web.

In New Hampshire, *Anabaena/Dolichospermum* is the most common genus of cyanobacteria found by NHDES, but its toxicity varies. Different genera have widely varying appearances. How to treat benthic cyanobacteria is largely unknown.

The One Health Harmful Algal Bloom System is a CDC initiative to link illnesses with bloom occurrences. The cyanobacteria monitoring collaborative (cyanos.org) runs volunteer

monitoring projects that are helpful but not a substitute for notifying the state. The Interstate Technical and Regulatory Council (ITRC) is a good source of additional information at a national level.

- 6) **Selection of chair:** Ted Diers expressed NHDES's hope that the committee will seek to arrive at consensus on the elements of the plan. The enabling legislation requires that the committee select a chair. Don Kretchmer nominated Doug Darling because of his background in science, experience organizing residents of a small lake, and his knowledge of cyanobacteria. Laura Diemer seconded the nomination, which was approved unanimously by the committee.
- 7) **Action Items and Next Meeting:** The next meeting will focus on the existing NHDES cyanobacteria advisory program and its strengths and weaknesses.

Doug Darling adjourned the meeting at 11:56.