

MINUTES
Cyanobacteria Task Force
Assessment Subcommittee Meeting
Downtown Grille, Wolfeboro, NH
Friday March 15, 2019

The meeting was called to order at 1:00 pm

Members present: Warren Muir (chair), Linda Murray, and Pat Tarpey

Members absent: None

Discussion items

Scope of the subcommittee's responsibilities:

- Assess water quality conditions and trends in the seven waterbodies fully or partially in Wolfeboro
- Identify and prioritize problems, particularly sources and conditions that may lead to future cyanobacteria blooms
- Identify and characterize future cyanobacteria blooms in the waters of Wolfeboro
- Determine whether any future cyanobacteria blooms release cyanotoxins at levels of concern and, if so, when the cyanotoxin levels are no longer of concern
- Figure out what is going on in Winter Harbor, which has multiple sources of nutrient storm water runoff (with high concentrations of total phosphorus), high concentrations of phosphorus in its sediments, large amounts of algal and potentially other biota growing on the bottom of the lake, and yet has quite good water quality, as determined by traditional measures (even during the cyanobacteria [Gloeotrichia] bloom in late August-early September 2018. The purpose of this more detailed investigation is to determine what would be good or bad to do to prevent the large amounts of phosphorus in the Harbor's sediment from significantly raising the concentration in the water column. It is also to be able to determine what practices might be beneficial or detrimental (e.g., autumn leaf control, use of algal blooms as garden fertilizer, generation of large boat wakes, and use of bubblers or de-ice circulators in the winter.)
- Develop, in conjunction with responsible town and state officials, a protocol to verify and report future cyanobacteria blooms (and cyanotoxin levels, as available) to all responsible officials, organizations, communications channels, and public

Available information

- Watershed Assessments have been conducted for
 - Lake Wentworth/Crescent Lake
<https://www.des.nh.gov/organization/divisions/water/wmb/was/documents/lake-wentworth-crescent-lake-wolfe.pdf>

<https://www.des.nh.gov/organization/divisions/water/wmb/was/documents/lake-wentworth-crescent-lake-wolfe-appendices.pdf>

- Rust Pond

<https://www.des.nh.gov/organization/divisions/water/wmb/was/documents/rust-pond-wbp.pdf>

<https://www.des.nh.gov/organization/commissioner/pip/publications/wd/documents/des-r-wd-07-24.pdf>

- Mirror Lake

https://www.tuftonboro.org/sites/tuftonboronh/files/uploads/mirrorlakewmp_final_05222012web.pdf

- Water quality monitoring data are available in a NHDES database
- Warren has some Winter Harbor data analyzed by UNH that have not yet been entered into the state database.
- Nancy Bird has offered to supply some additional data for Mirror Lake that also have yet to be entered into the state database.
- Nick Sackos of Dive Winnepesaukee has offered us assistance in determining deep water locations and has volunteered to meet with the subcommittee

Information needs

Additional locations desired for water quality analyses

- Back Bay/Front Bay (Warren will ask the Waterski Club)
- Jockey's Cove (volunteer suggested)
- Johnson's Cove (volunteer identified)
- Along the shore by Tips Cove Road
- Wolfeboro Bay
- Clark Point (volunteer identified)
- Oakwood/Springfield Point bay

For these locations, standard UNH measures desired plus determination of any anoxic conditions

Need a variety of additional measures to figure out the chemistry and biology of Winter Harbor, including why water column phosphorus levels are low, while storm water and sediment levels are high, even during the Gloeotrichia cyanobacteria bloom of late August 2018. Also, why there is so much algal and other growth on the bottom of the lake in Winter Harbor, but very little in the water column. Want to determine what actions may help or worsen the conditions. These needs are to be discussed with various experts to get their views on what should be measured.

Want to be able to determine whether or not any suspected cyanobacteria blooms are real

Want to be able to determine the levels of any cyanotoxins associated with blooms, if any, and if so, when the concentrations have gone below levels of concern.

We need to determine what we can or should do ourselves?

Need to identify labs that could be used, for what we cannot do ourselves.

- NHDES can confirm the existence of cyanobacteria blooms promptly, but until they get additional resources will not be able to determine cyanotoxin levels for several months.
- We will explore the capabilities of UNH, Colby-Sawyer, Dartmouth, Bigelow Laboratory, and commercial labs

Upcoming information gathering meetings

UNH – March 27 in Durham with Bob Craycraft and Jim Haney

Lake Sunapee Assoc. - TBD

Dartmouth - likely

Others to be involved

Volunteer water samplers (see above) – will seek people whom we think may be willing to volunteer and will request others at the Water Summit on May 11

Will seek road association volunteers to identify storm water runoff sources in Winter Harbor. Also, the Lake Winnepesaukee Association will have two AmeriCorps volunteers this summer helping to identify such sources.

Proposed cyanobloom observers: Parks and Rec public beach staff, NH Lakes Assoc. lake hosts, and anyone else wishing to be a trained observer (to be mentioned at the Water Summit

There will Cyanobacteria and cyanobloom recognition training provided by USEPA and UNH, who will bring a mobile lab to the Brewster Academy boat house on June 26th.

The cyanobloom reporting protocol

The development of a cyanobloom reporting protocol should involve the Parks and Rec Dept, the Public Works Dept, the Town Manager, the Public Health Officer, and NHDES. The protocol should be developed by this summer. We can create a list of email addresses of those who take their drinking water from the lakes and others who want to be notified of any cyanobacteria bloom or cyanotoxin advisories through a solicitation in electric bill mailings. News outlets, Facebook, the town website, and other online means can help notify the public.

Additional subcommittee members

The members decided to invite Steve Wingate of Winter Harbor in Tuftonboro and the Chair of the Tuftonboro Conservation Commission to join the subcommittee.

Adjournment

The meeting was adjourned at 2:45pm