The Sunrise Lake Chronicle

Sunrise Lake, Middleton New Hampshire

Early Summer 2023



We are Back!

It has been over a year since our last publication, but I felt this was a time to kick-start the presses. A lot has happened since the winter of 2021. COVID has subsided, lake usage is grown, more pontoons are sailing around, new homes have been built and old ones updated. We completed a Sunrise Lake Watershed Management Plan in December of 2021. Looked at the lakes' health and proposed nine-element criteria to restore the nonpoint source of pollution that is affecting the quality of the water. The recommendations provide a 10-year plan for future development and strategies to help us achieve a better cleaner lake for us all. Look at the plan, see what you think, and let us know. The plan is only as good as your help in implementing it. https://strafford.org/docs/sunrise-lake-watershed-management-plan/

So, what is happening to the lake? The winters are getting shorter. Ice-in is later as well as Ice-out is earlier. What does that mean vegetation and organisms have a longer growing season which can be problematic. We must be diligent in watching for invasive species both aquatic and plants. Since treating our milfoil infestation in 2019 we have very little infestation.



We have been able to continue to hand pull what shows up and it has not grown. That is a big win for us. That took us over ten years to defeat it. The cost for the mitigations currently is running around \$1000 per day with a 50% grant from NH DES. However, we need to keep a watchful eye and report any suspicious sittings to NH DES, Amy.Smugula@des.nh.gov

and the Conservation Committee, conservation@middletonnh.gov. We still will see those smelly Chinese



Mystery snails but so far not so many this year.

Our water quality continues to fluctuate with rates of phosphorus moving up a down over the years. Test results are posted on the Conservation Commission web page. We have over several years been only taking one annual water test in the summer. However, the Watershed Management Plan recommends at least three series of tests. So, in 2023 we are going to conduct two days of testing. One has already been completed as of June 7, 2023. Results will be posted on the Conservation Commission page shortly. The second series of tests will take place in the middle of August. We collect samples from seven to ten sites and send the samples to the NH DES Lab. Results are available within four weeks. An annual report is then published by NH DES in the first quarter of the following year. Each sample for phosphorus costs \$20. So, if we do 20 samplings that would be \$400. That is well-spent resources to learn about the lake's water quality.



If you want to be a Sunrise Lake Volunteer Lake Assessment Program volunteer, please contact the editor at lunar.look34@gmail.com. It is a nice two-hour boat ride taking samples and looking at a Secchi Disk and a View scope.

Enjoy the balance of your summer and enjoy the waters of Sunrise Lake. **IF YOU SEE SOMETHING-REPORT IT**

John Mullen-Editor

So here we are in late June of 2023 getting ready for the 4^{th} of July and we are deluged with rain. We are now seeing several outbreaks of

CYANOBACTERIA!



Have not seen these since 2018.

Cyanobacteria have been around for 3.5 billion years. It is an organism that is found in nearly every body of water in the world. Under certain conditions within a water body, the bacteria will bloom. Such factors as temperature, water chemistry, and weather all contribute to a bloom.

Cyanobacteria is very toxic to animals and humans and should be avoided at all times. It has been known to kill a dog who has ingested cyano bloom-infected waters within hours.

Does Sunrise Lake have cyanobacteria? Yes, so does every water body in the world. Have we had any reported blooms? We had a reported bloom in 2016 and 2018 and the areas of the bloom were posted. The bloom disappeared shortly. However, since June 1st we have had two "Advisories" and one" alert".

These are photos and videos of some of the reported sites:

https://photos.google.com/photo/AF1QipMblAZjy383GoXpIbX1n4NWuFZf2OT3JyAZLuDthtps://photos.google.com/photo/AF1QipMblAZjy383GoXpIbX1n4NWuFZf2OT3JyAZLuDthtps://photos.google.com/photo/AF1QipMnVYQCTs3XNQmk3P6ofpYWfAfQqqo7kBF_33JlVLAP\SunriseMiddleton_062123_Alert269 Pinkham.jpg

What can cause a bloom in Sunrise Lake? Stormwater runoff, and excessive phosphorus loading from natural and man-made sources such as septic systems and agricultural products.

New Hampshire has always been aware and watchful of this bacteria but not much attention was paid until the last few years. The lake only became testing specifically for cyanobacteria in its water in 2017. Now the state has a special unit that does only cyano testing and has put together a team to specifically address the bacteria. This new program is called the CyanoHAB Response Protocol for PublicWaters.

It has a dedicated web page that fully explains what cyano is and what is being done to address it. Link to the site and you will get a full description of the program and what to do if you suspect a bloom: Harmful Algal Blooms | NH Department of Environmental Services. The page provides a means of reporting a bloom and who to contact. The HAB team in NH DES is very responsive and can have results within a few hours of samples being delivered to them.

If you see a suspected bloom don't wait call this hot line immediately: 603 848-9044. You can also contact the Town Health Officer at (603) 515-6129. If you want to know if any lake restrictions are in place you can link up at the Public Health Advisories section.

We hope to publish more issues throughout the year. If you would like to contribute articles, pictures, or suggested topics please contact the editor at lunar.look34@gmail.com.

A final note: we need volunteers for VLAP, Weed Watchers, and Conservation Commission Board Members. Remember the lake will only stay healthy with your help.

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IMPORTANT LINKS TO INFORMATION ON/ABOUT LAKES

- 1. NH Department of Environmental Services
 - a. https://www.des.nh.gov
 - i. https://www.des.nh.gov/water/rivers-and-lakes
- 2. NH Department of State Police/Marine Patrol
 - a. https://www.nhsp.dos.nh.gov/our-services/field-operations-bureau/marine-patrol
- 3. NH Lakes Organization
 - a. https://nhlakes.org/
- 4. Google
- 5. Town of Middleton
 - a. https://www.middletonnh.gov/
 - b. conservation@middletonnh.gov

IMPORTANT PHONE NUMBERS ON/ABOUT LAKES

- 1. Cyanobacteria Hotline: (603) 848-8094 or email HAB@des.nh.gov.
- 2. Middleton Health Officer: (603) 515 6129 (cell) ceo@middletonnh.gov
- 3. Marine Patrol emergency: (603) 293-2037 or (877) 642-9700
- 4. Town of Middleton: (603) 473-2261)