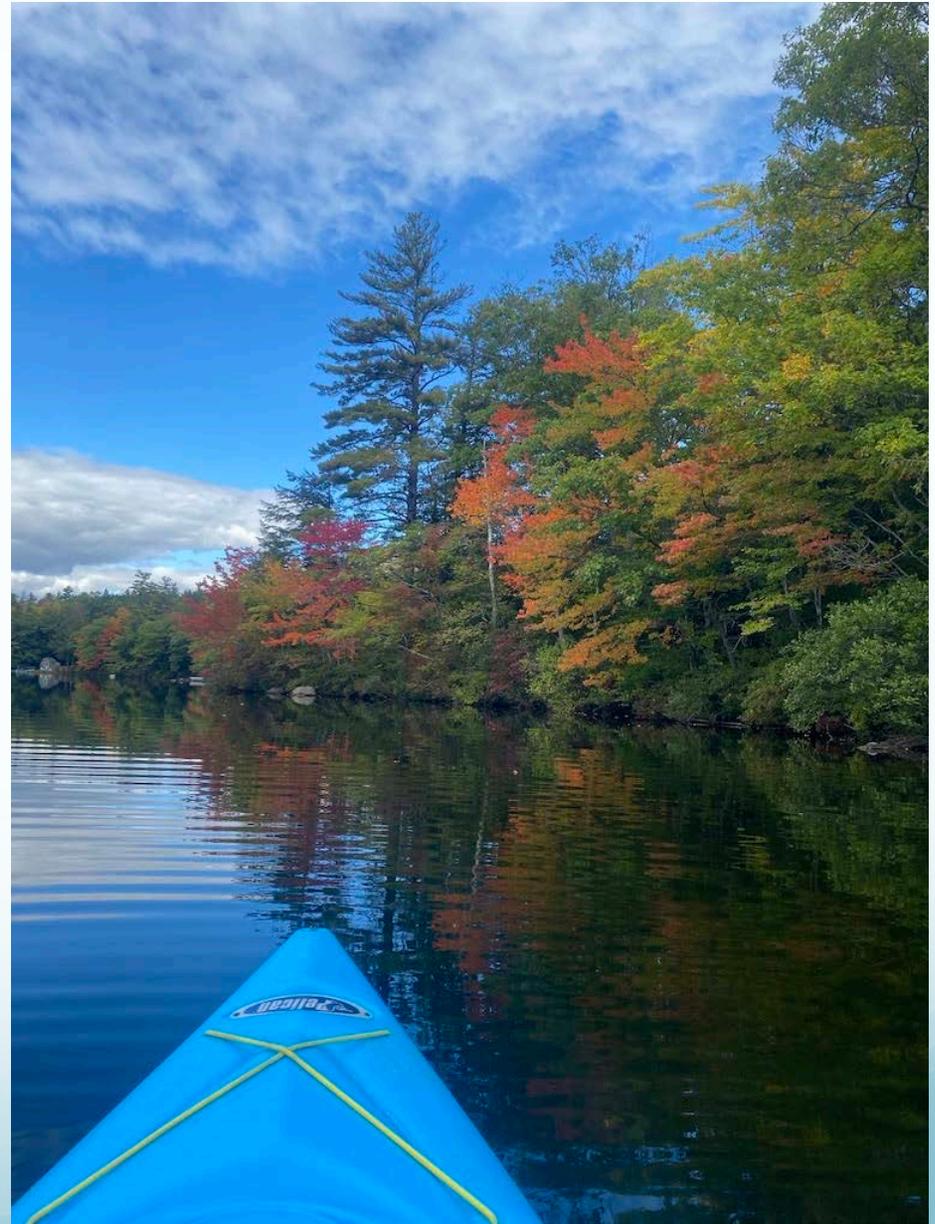


# Tucker Pond Cyanobacteria Committee Taking Action

Volunteers Making a Difference

# Tucker Pond

- Small 59-acre lake in Salisbury
- 49 camps / homes owned by 45 families
- Some camps date from the 1920's; some 3<sup>rd</sup>-4<sup>th</sup> generation
- Only 7 properties occupied year-round
- 1 commercial property – traditional New England cabins for summer rental
- Most of the watershed is forested



# Community

Tucker Pond Improvement Association (TPIA) – decades old

- 2 summer meetings
- Minimal voluntary dues (\$20)
- Water sampling going back decades
- Annual cookout, golf tournament, cribbage



- Book club, games night, water aerobics, kayak “raft up”
- Other historic activities – parade of boats, “longest resident” plaque

# Cyanobacteria Bloom

- Appeared Fall 2019, reappeared July 2020 (lasted most of the summer), reappeared June 2021 (came and went all summer)



Photos from 3 dates in  
Aug 2021

# TPIA Response to Cyano

TPIA set up a Cyanobacteria Committee to

- Learn what causes blooms
- Learn which factors dominate for Tucker Pond
- Generate community understanding / support
- Recommend actions to take as individuals and as a community



# Cyanobacteria Committee

- Dug into the aquatic ecosystems literature to learn about cyanobacteria, eutrophication, etc.
  - One interesting finding: cyano blooms can decrease the value of lake homes by 20%\*
- Hired a consultant, Don Kretchmer
- Started fundraising for a Cyano Fund
- Developed ways to share information and get input from the pond community

- Wolf + Klaiber, Ecological Economics 135 (2017) 209–22

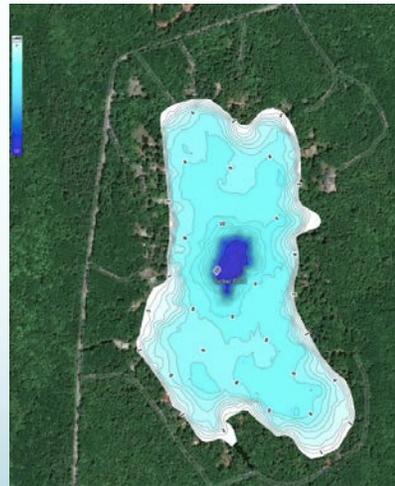


# Consultant Recommendations

The Cyano Committee spearheaded work on the consultant's recommendations, volunteering more than 1200 hours in the first year

1. Greatly expanded water monitoring (VLAP with DES)
2. Characterized pond-bottom sediment
3. Conducted a septic system survey
4. Updated the bathymetric (depth) survey
5. Determined whether toxins are present
6. Tested nearshore specific conductance measurements to see if septic system failures can be detected
7. Determine flow rates of tributaries (unable to do)

# Cyano Committee Activities



# Fostering Community Involvement

We know we can't make progress without strong support from the pond community

- Invited consultant, NHDES, NH Lakes speakers for TPIA meetings; more planned
- Wrote informative septic system survey to increase awareness of P and N pollution from septics and to gather info about age and care of septic systems around the pond
- Created blog (with 31 posts to date) and encouraged families to subscribe



# Community Involvement (cont.)

- Sent informative emails from TPIA Chair and Cyano Committee Chair with updates
- Invited additional members of pond community to join Cyano Committee or committee activities
- Surveyed properties with owners and with Soak Up the Rain (DES) and LakeSmart (NH Lakes) to discuss and educate about stormwater runoff
- Invited the community to participate in a demonstration “rubber razor” project



# Protect Tucker Pond Blog

<https://protecttuckerpond.wordpress.com/>

The screenshot shows a Windows desktop environment. On the left is the taskbar with icons for Recycle Bin, Google Chrome, and Dropbox. The main window is a Google Chrome browser displaying the homepage of the 'Protect Tucker Pond' blog. The browser's address bar shows the URL 'protecttuckerpond.wordpress.com'. Below the address bar, there is a WordPress.com banner with the text 'Create your website with WordPress.com' and a 'Get started' button. The website header features the title 'Protect Tucker Pond' and navigation links for 'Home', 'Blog', 'About', and 'Contact'. The main content area is a large image of a lake at sunset with the text 'Protect Tucker Pond' overlaid in white. The Windows taskbar at the bottom includes the Start button, search icon, task view, and various application icons, along with system tray icons and a clock showing 7:07 PM on 5/23/2022.

# Blog Topics

Typical post gets 20 - 50 views on website (unknown how many read it in their email)

- Lifespan of a lake
- What are cyanobacteria
- Phosphorus and lake health
- All things septic (+ posts about alternative septic systems, septic system inspections)
- Importance of runoff, and examples of minimizing runoff from around the pond
- Septic survey results, and comparison to NH Shoreland Septic System Study
- Sediment sampling and results
- New depth chart
- Bio-Char experiment and results
- Walking the properties
- Rubber razor demo project
- Year in review
- Cyano + property values
- Watershed Management Plan – why, deliverables, progress

# Community Results

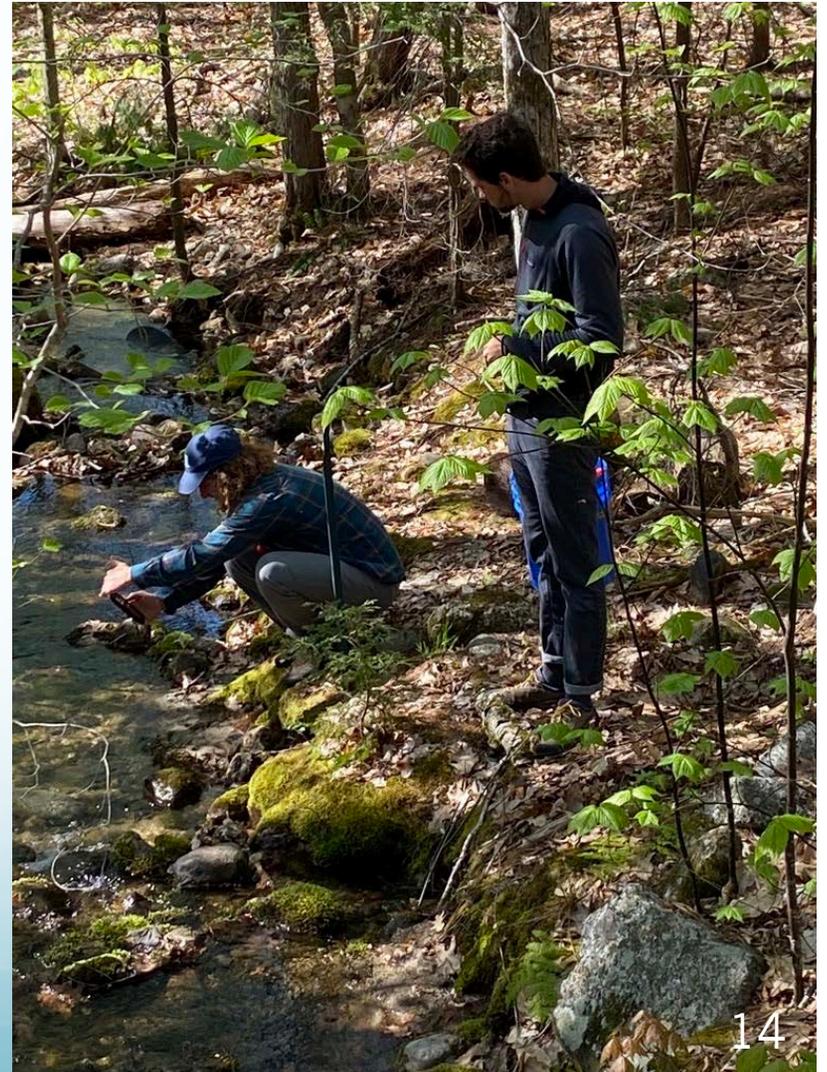
Seeing strong support (though worried it will stall as the situation drags on)

- 91% of the property owners responded to the septic system survey
- Raised \$38,000 for tests and consultants – at least 75% of pond families donated
- A number of septic systems inspected and/or pumped out, Port-a-Potties rented for a couple of iffy situations
- 4 new septic systems and 1 new septic tank installed 2020-2021, 2-3 more planned for 2022
- >10 owners wrote to NH Legislature in support of cyano bill

# Next Steps

We're working with FB Environmental on a formal Watershed Management Plan

- Site-specific project plan completed and approved by NHDES
- Septic risk assessment under way
- Watershed survey carried out, being documented
- Goal is to have a draft action plan for late-summer TPIA discussion



# Take-Home: Communication is Key



- Cyano Committee has done a lot of work to define phosphorus flow in Tucker Pond; will continue to develop recommendations
- We have tried to use each activity as a tool to raise awareness and inform members of the pond community
- Trying to strike the right balance to motivate action
- In the long run, failure or success of the Cyano Committee will be determined by the extent of buy-in we can get from the whole community

Can we help you?

Write us:

Doug Darling, Cyano chair  
([Douglas.Darling@louisville.edu](mailto:Douglas.Darling@louisville.edu)) – info about committee

Laura Colcord – blog  
[laura.j.colcord@gmail.com](mailto:laura.j.colcord@gmail.com)

