

Greetings from LIME LAKE

Fall 2022



Northern Lights photo credit Steve Roznowski

Dear Members,

Snow is already accumulating this early November. It is a good time to reflect on the work of 2022 and anticipate opportunities in 2023 to serve our mission as a lake association. All our work is dependent on your gracious and generous support and the dedication of your committed, voluntary Board. I hope you find the work detailed within this newsletter worthy of your continued support. You, our members, are our most important partners in serving our mission to act as “stewards of the environmental purity and beauty of Lime Lake.”

As stewards we have many collaborators. Long standing, the Leelanau Conservancy continues to make significant investments in protecting our watershed through land preservation and water monitoring projects. For many summers the Benzie County Conservation District has brought a mobile boat washing station to our launch. At this year’s boat washing day we collaborated with Leelanau Clean Water and EGLE to have a permanent sign installed and educational materials available as part of a statewide invasive species prevention “Blitz”. The Grand Traverse Band has included us in a three lake (Lime, Little Traverse, and Glen) grant to proactively fight invasive species. We plan to continue working with these groups in 2023.

Local governments are also supporting our efforts to protect the water. The county is drafting a county wide septic ordinance. Cleveland Township has had one for years but, Lime creek sources in Kasson Township and our ground water is shared within the whole Good Harbor Watershed. Cleveland Township Board has directed the planning commission to draft a Short Term Rental ordinance, which could help protect our water by regulating short term renters over taxing family size septic systems.

And you, our members, have volunteered to work the “Blitz”, remove Yellow Iris, and even wade the stream to remove beaver debris. The Board hopes to have more “work groups” made of our membership to tackle projects together. Stay tuned to Eblasts and our newsletter for opportunities to join in the work (and the parades, annual meeting, etc.).

Hope you have a safe and warm winter.

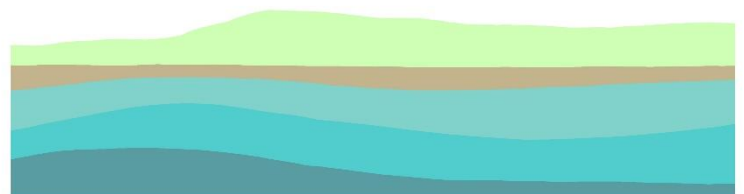
On Behalf of the Board, Thank you.

Sincerely,

Dean Manikas

Lime Lake – Leelanau

Mission Stewards of the environmental purity and beauty of Lime Lake



Four Big 'Lake-Bio' News Stories for 2022

The Water Level: Low – High – Low – Higher! Aargg!

For much of the Spring through July we were in a drought. Initially the lake levels were low. Very low. Then in late July the levels rose – despite a lack of rain. Shoreline erosion could be seen. Our suspicions of something amiss downstream (i.e., Shetland Creek) were confirmed. Kelsey & Crew dismantled a substantial beaver dam on July 24, and the lake level dropped within days.

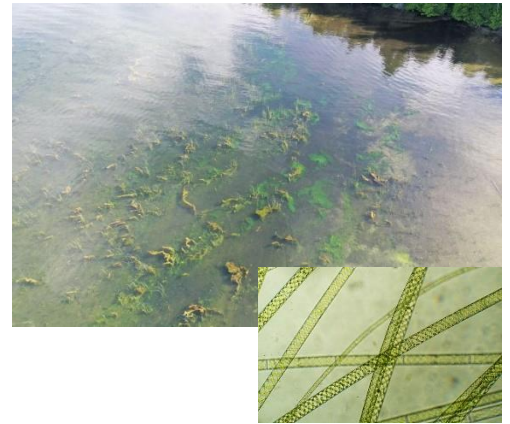
Then the drought broke, rains came – and the lake level rose again. Even higher. A second crew including Mark Fisher and David Talbolt dismantled another dam in late October. As this situation may recur we are investigating both beaver trapping and a younger dam 'wrecking crew'.



The Big (Algal) Bloom

In July, a large and unprecedented algal bloom near the mouth of the creek coming out of Pat's Preserve (SW corner) was observed. We are talking acres in size! Samples were identified as Spirogyra (my favorite species!), which is a native species. We collected and archived drone footage of this event.

Spirogyra is not considered dangerous to humans - unlike cyanobacteria blooms that may contain toxins harmful to human health - the green filamentous algae spirogyra are harmless. Why did it form? Very difficult to say with certainty – likely the proper combination of natural factors of temperature, light, etc.



What's happening in the Aquatic Gardens?

A regular part of our bio activities is the aquatic gardens survey: we literally dive on all identified aquatic gardens ("weed beds") and document (abundance and relative number) all aquatic plant and macro algae species. We conducted a complete drone-imaging video survey of the entire littoral zone (the transitional area between uplands and open water) on 2 August. All 6 aquatic gardens identified by drone were surveyed using full scuba gear on 17 August. Each dive location was documented using an underwater GoPro video camera. This year we developed a more robust map of our aquatic gardens showing you the locations of the aquatic gardens and all plant species identified. An interesting phenomenon was observed in 2022 that we haven't ever observed - there were very few aquatic gardens and those discovered were not very robust. When observed using scuba gear, we discovered the plants were weighted down with a heavy layer of what appeared to be golden-brown algae. Most plants that usually send their stems up to the surface were laying horizontal near the lake bottom. It will be interesting to see how this compares to 2023. (The increase in 'golden brown algae' is not fully understood but the best, latest theory is that it is related to an increase in phosphorus in lake water associated with rising water levels). The good news: no invasive plant species (especially Eurasian watermilfoil) were identified in this comprehensive survey.



Yellow Flag Iris (YFI) Eradication

As invasive species have the potential to substantially alter a local ecosystem, efforts are made to eradicate them when found. We conducted a YFI survey on the entire shoreline on 19 June. Association members (of whom I had an email address) were alerted to the invasive species on their property and asked if they need assistance removing this invasive plant. On 7 July I worked with Leelanau Conservancy personnel and three Lime Lake volunteers to remove the YFI found on the south end in Pat's Preserve. A similar work bee is scheduled for June 22, 2023 at 9, to continue the efforts of removing YFI from Pat's Preserve.



The Lake Biologist Project Check-List

Greenbelt Consults Shoreline Protection

4 on-site greenbelt consults were conducted with Lime Lake riparians in 2022. All meetings were incredibly positive with a focus on simple recommendations for best shoreline protection practices.

Invasive Species Emergency Response Plan

An emergency response plan has been informally developed that includes early detection and rapid response to EWM (Eurasian watermilfoil).

CLMP (Cooperative Lake Monitoring Program) Water Analysis

CLMP water analysis was performed and findings reported to the state. Secchi disk - used to measure water transparency - readings were taken approximately every two weeks from May until September and reported to the state.

Phytoplankton and Zooplankton Sample Collection and Analysis

Analyze phytoplankton and zooplankton samples. Microscopic organisms, including algae, rotifers and arthropods are important organisms in a lake ecosystem. Algae, along with submergent plants and photosynthetic bacteria, are the base of most aquatic food webs and their presence ultimately allows birds, fish and other animals to live in and around the lake.

Enteric Bacteria Study (Septic)

For the 3rd and final year of our enteric bacteria study, surface and well water samples were collected from 8 resident locations around the lake on the mornings of 21 June, 18 July, and 1 August. DNA extraction and analysis was performed at the FWS laboratory. An appended report summarizing our findings will be provided later this fall.

Discovery Boat Excursion

We conducted one Discovery Boat excursion, with the generosity of Captain Mark Fisher, the use of his pontoon boat, and nice appetizers supplied by Mary Barss on 27 July. The cruise gave us an opportunity to educate more members about all of the initiatives LLA is undertaking to protect and preserve our beautiful lake.

Plus, the aforementioned Aquatic Gardens Survey, Yellow Flag Iris Invasive Eradication, etc. (The full Lake biologist 2022 Report is posted on the Association website).



Kelsey Froelich, Lime Lake Biologist

November 2022

Catch the 2022 Annual Meeting video on Replay: All Thing Biological!

Lake Biologist Kelsey Froelich tells the story of the beaver dam removal, provides invasive species updates and more. <https://youtu.be/Zg4Wd1ekvw0>

Lime Lake Gear! NEW Wine Glasses! T's! Hats!

New stemless wine glasses with aqua graphic on clear glass. \$20 for 2

Also, very limited availability of favorites such as our ballcap (\$20) and black T-shirt (\$20).

A new T-shirt design is under development, but not available at the time of newsletter printing. Check the website or look for an email as we will post photos as soon as available.

Contact Mary Barss to order or check availability: marybarss@aol.com or 616-450-7696



Cold Weather Boating Recommendation: Get Prepared for Spring!

With the cool weather, virtually all the docks and boats have retreated to the land, which makes it a good time to check that your safety gear is complete and in good operating order.

The basic 'must-haves' include:

1. Life jackets and wearable personal flotation devices (PFDs)
2. Throwable flotation devices
3. Fire extinguishers
4. Visual signaling devices
5. Sound signaling devices

Want to be more prepared? Are they required or only recommended items? Either way, you can pack most of these aboard even the smallest of boats.

1. Medical kit for cuts, scrapes, seasickness or small emergencies
2. Anchor with line to hold your boat in place while you wait for help to arrive
3. Bailing device or bucket to dewater and stay afloat
4. Oars or paddles if the engine quits
5. Cellphone to call for help
6. VHF radio to call for help
7. Knife to cut a line around a fouled propeller
8. Snorkel mask to inspect what's going on under the boat
9. Heavy duty flashlight
10. Skier or diver down flag
11. Working running lights if your boat is equipped with them
12. A way to get weather updates because things can change quickly even on a small lake

Wake Boat Operation Recommendations

The Michigan Department of Natural Resources, Fisheries Division, recommends the following to minimize the effects of wake surfing and wake boarding on natural resources:

1. Boats operating in wake-surfing mode or wake-boarding mode, during which boat speed, wave shapers, and/or ballast are used to increase wave height, should **operate at least 500 feet from docks or the shoreline, regardless of water depth.**
2. Boats operating in wake-surfing or wake-boarding modes should **operate in water at least 15 feet deep.**
3. **Ballast tanks should be completely drained** prior to transporting the watercraft over land.

State of Michigan – Department of Natural Resources (FR37 – posted to the Association website)

Cleveland Township: Working to Protect What We Value Most

The recently completed township survey has confirmed what you likely already know: residents place high value on clean water, quiet, and scenic views. The survey will be used to guide development of updates to the Master Plan (currently 2017) and modifications to the Zoning Ordinances.

No one should be surprised that these values and priorities align nicely with the Mission of the LLA.

Examples of Ordinances that help protect our shared environment include:

Septic Inspection at the Time of Title Transfer

The township has adopted a septic inspection, at the time of title transfer, ordinance. The potential for human enteric bacteria leaching into our lake from failing septic systems is a concern for all riparians. It is recommended that property owners have their septic systems inspected (private firms or the health department will provide the service) every few years. This is not a legal obligation, but something to consider for the safety and wellbeing of all riparians and the health of our lake.

Watershed Protection Ordinance

The Township Board recently adopted a Watershed Protection Ordinance (section 4.27), based on the researched proposal for the Glen Lake Watershed. Of note, seawalls are not allowed under the ordinance.

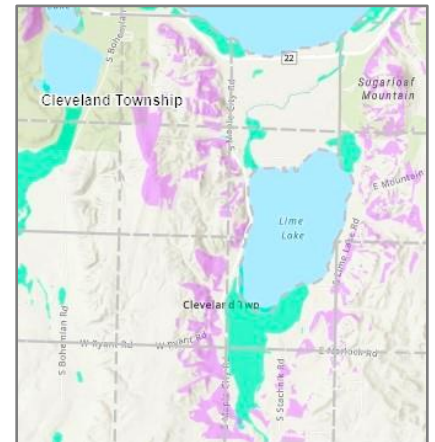
The emphasis mirrors the Lime Lake Association's recommendations through our Lake Stewards program and consultations with our lake biologist. For existing property owners, the Stewards program and new ordinances give excellent guidance on strategies one may use to "do your part" in preserving the water quality of our lake.



Scenic Viewshed Protection Ordinance

The county planner has noted that as development pressure mounts, people begin moving into less desirable, more sensitive water side properties and up the hills above the lake. Cleveland Township took note of this and has put into place a set of ordinances to guide the safe development in sensitive areas and hillsides. A Scenic Viewshed Protection ordinance (section 4.26) was adopted to protect against the reshaping of hills (leveling and grading), clear cutting (e.g., M72 above Tom's) and polluting runoff, etc. to maintain the water quality and scenic aesthetics of Cleveland Township so highly valued to our community.

All ordinances are online via a link through the County Website. Remember, zoning is not retroactive, it only applies to new building and development. (Recall that the Association has no enforcement authority – but the Township does!)



On the Horizon...

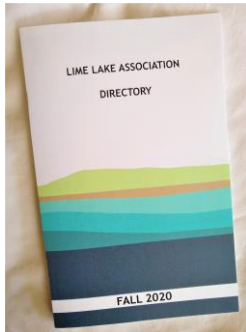
Short Term Rental (STR) is likely the hottest issue on the horizon. The survey reflected the concern of many owners with the growth of rental services such as Airbnb and VRBO and the increase in part-time 'investor' ownership. These trends have the potential for increased development and more intensive land & water use, which may put greater pressure on our shared environment. The issue has already generated considerable discussion across much of Northern Michigan. Stay tuned...

Membership

As of mid-November, 2022 paid membership was 60.

Thanks to all of you! It is our collective efforts that help to protect our beautiful Lime Lake!

Your membership is tax deductible, you are entitled to receive an LLA Directory and you will have the satisfaction of knowing you are supporting the LLA efforts. You can check the Member Roll on the last page to see if our records show your giving in 2022. There is still time to renew your support for 2022. If you believe our records are in error, let us know.



The NEW Directory... is here!

The updated LLA Directory was available at the Annual Meeting in July.

If you missed that pickup opportunity – we've included a directory mailing to members of standing in 2022.

Changes to your information? Email any changes – name, address, alternative address, phone numbers, email addresses – to limelakeassociationMI@gmail.com. Then we can make the Directory and database as accurate as possible.

Lime Lake Association Board - 2022-2023

Dean Manikas	President	manikasdean@gmail.com	517-410-9170
Jeff Kane	Vice President	jeffkane@live.com	231-228-7801
Molly O'Toole	Secretary	molly@mollyotoole.com	630-258-1828
Lisa Genesen	Fundraising	lisa.genesen@att.net	312-618-3816
Margaret O'Toole	Membership	motoole@otoolecservices.com	231-327-5133
Mark Fisher	Treasurer	mark@markfisher.com	231-228-6201
Mary Barss		marybarss@aol.com	616-450-7696
Ron Reimink		reiminkron@gmail.com	616-293-0252
Steve Olson		solson4899@aol.com	248-514-8746
Lake Biologist			
Kelsey Froelich		kelsey.froelich@gmail.com	616-293-7525

Lime Lake – Leelanau

Mission Stewards of the environmental purity and beauty of Lime Lake

Vision

The Lime Lake Association is dedicated to the conservation and preservation of Lime Lake, its shores and streams. To serve this purpose, the Association will promote environmental education, scientific research and testing to safeguard water quality and abate health hazards and collaborate with public and private entities.