TORCH LAKE PROTECTION ALLIANCE

First Ever "Torch Lake Adaptive Management Workgroup" Meeting June 10, 2022

A major concern of TLPA members and others who love Torch Lake is the rapid spread of golden-brown benthic algae (GBA). It is impacting the colors and texture of the lake's shoreline and is possibly indicative of the direction of the overall health of the lake. In response to this concern, TLPA worked with Three Lakes Association (TLA) and Torch Conservation Center (TCC) to hold a meeting on June 10 of those actively involved in the technical aspects of the water quality of Torch. The meeting was months in the making. The idea of the meeting was first proposed by Dr. Dale Robertson of the U.S. Geological Survey (USGS). We have a contract with USGS for this current year, 2022 and Dr. Robertson is the USGS Team Leader.

The primary purposes of the meeting were (1) to get a pulse on our collective understanding of the cause(s) of golden-brown benthic algae and (2) discuss the need for a long-term health monitoring plan for Torch. Additional goals were to work toward alignment amongst the organizations working on Torch (non-profits and governmental). It also created a network of local and external experts that can be drawn upon in the future. Perhaps the biggest driver was to create a renewed sense of urgency among all those working on Torch.

Working with USGS and continued GBA research offer us the best chance at meeting our two main objectives. The USGS organization is staffed with talented, dedicated, passionate personal of the highest level of professionalism. Their resource reach is what is needed on a project of this breadth and scope. We've gone to great lengths to give them what they need to bring this program home.

The meeting was attended by over 50 people. This included Dr. Jan Stevenson of MSU, who with TLA has been studying the GBA issue since 2014, Dr. Dale Robertson, Dr. Sherry Martin, Dr. Angela Brennan, Dr. Chris Hoard and Jim Wilkinson of USGS, Dr. Geoff Schladow (UC-Davis/ Lake Tahoe Research Center) and representatives from GLEC, Tip of the Mitt, EGLE, DNR, Grand Traverse Bay Watershed Council, and others. The combined experience and expertise in the room was as good as anyone could hope to pull together.

As Tom Joseph, one of TLPA's organizers said, "This meeting is part of a journey. It's not the destination." What emerged from the meeting was that the exact cause of GBA remains unknown. Leading hypotheses, as yet unproven but in various states of testing, were decreases in phosphorus levels, invasive species and groundwater contamination. While some causes are thought to be unlikely, it is not possible, at this time, to rule anything out.

The absence of a proven understanding of a cause doesn't mean we should be inactive. Everything from suspending fertilizing on shorelines on Torch, to the health of septic systems and more needs to continue.

It is also emerged that the current monitoring approach for Torch Lake is not as comprehensive as it should be. A comparison to Lake Tahoe and many other lakes in the US indicates that to be the case. While that doesn't mean we should adopt exactly what others are doing, it does mean we likely do not currently have the data and trends to fully assess the future health of Torch Lake. A complete video of the full day long meeting is available at YouTube via the link: **https://youtu.be/B-S_oQCkOko.**

For a review of the presentations, go to: **https://www.mediafire.com/file/wzizrcenwypak91/Adaptive_Management_Presentations.zip/file**

A reference document that contains the pre-read to the conference and that will be maintained as a living document is available at: **https://drive.google.com/drive/folders/1y5gva5pCEhNYc9IhPpFzkCmIBB-c_eSw**

TPLA will be working with USGS and TCC/TLA to formulate next steps for the work with USGS on the monitoring program. This program could lead to computer modelling of Torch Lake, which in turn would allow for better testing of hypotheses related to golden-brown algae. Just as importantly, the monitoring program could also assist us in detecting and dealing with future threats to Torch Lake that will undoubtedly emerge. While nothing is guaranteed, undoubtedly, we can do better.

In parallel, the work to understand the cause of GBA will continue in earnest. This includes evaluating reports that GBA is occurring on other nearby lakes, and determining if it is the same as the GBA we have in Torch Lake. If so, this will be another clue to its cause while also motivating further collaboration.

With all this work, we hope to keep Torch Lake in the best possible state for future generations.

2022 TLPA Greet, Educate, and Meet Event (GEM)

Our annual GEM meeting was held at A-Ga-Ming Resort on June 11. The focus of the meeting was the proliferation of Golden Brown Algae (GBA) along the shorelines of Torch Lake. The attendance at the meeting was the highest of any GEM event that anyone could recall, a clear indication of the importance our membership is putting on understanding the cause(s) of GBA and identifying, if possible, mitigation measures.

Tom Joseph of TLPA hosted the event. It included a report on the June 10 meeting which was a day-long meeting dealing with the subjects of the underlying science of GBA and the need for a more comprehensive monitoring approach for Torch Lake. This meeting is reported on in a separate article (First Ever "Torch Lake Adaptive Management Workgroup" Meeting) on page one of this newsletter.

At the GEM event, Dr. Dale Roberson of the U.S. Geological Survey (USGS) gave a detailed presentation on his and USGS's extensive work on other lakes in the country with a focus on the midwest. The slides used in the presentation can be found at: **https://www.mediafire.com/file/07imr1wgzr3oo4a/Robertson_USGS2022_GEM.pdf/file**

The motivation for the talk was how this work will inform future similar work on Torch. Dale is our USGS Team Leader. We currently have a contract with USGS through the end of the year. We plan to get a detailed Monitoring Plan in place, design specialized stream gages for placement in Clam River and Torch River and have a team in place to begin sampling and analysis work next year.

Dr. Geoff Schladow (UC-Davis/Lake Tahoe Research Center) also discussed his experience with Lake Tahoe, how it informs our understanding of Torch Lake and potential next steps with monitoring and even possibly computer-modelling the lake. Tahoe and Torch Lake are both beautiful lakes and oligotrophic (low in nitrogen and phosphorus concentrations). While we think Torch is deep, Lake Tahoe is 5x deeper! What is also remarkable about Tahoe, and something we are learning about with the contact we have made with Geoff, is how Tahoe is monitored. A simple scan of their website**:** **https://tahoe.ucdavis.edu** and the work they are doing as led by Geoff, is inspiring and can be considered best practice. We think of this approach and those discussed by Dale as benchmarks for Torch.

The presentations were followed by a lengthy and energetic Q&A session which was appreciated by all that attended. These included members of the Elk-Skegemog Lake Association (ESLA) which further indicates the interest in GBA and an opportunity to collaborate.

The meeting was concluded with a heart-felt presentation by Dave Martin, our TLPA Vice-President. He explained the success of our USGS project will be paced by our fund raising and donations. The work planned with USGS is broad in scope and resource intensive, which will take funding to keep on track.

For more details on what comes next, refer to the June 10 article (on page 1) in this newsletter. Also feel free to contact Tom Joseph at tlpa@torchlake.com. The collaboration amongst TLPA, the Torch Conservation Center and the Three Lakes Association on understanding GBA and creating an enhanced monitoring plan is a key next step. There is much developing on additional next steps.

Mission of TLPA

To preserve the beauty of Torch Lake and its watershed and to protect its environment for the enjoyment of all

Full Aquatic Plant Survey of Torch Lake Completed

The full plant survey of Torch Lake funded by the Dole Family Foundation and conducted by the Tip of the Mitt Watershed Council in 2021 is now complete! This is the first comprehensive aquatic plant survey of the entire lake perimeter that has been completed for Torch Lake.

Background

The Eurasian Watermilfoil (EWM) Task Force was started in 2020 as a joint effort between Three Lakes Association and Torch Lake Protection Alliance. The objectives of this team were first to access the growth of this invasive species in Torch Lake and then to develop a long-term monitoring/treatment plan to keep it from spreading and eliminate where possible.

Initial steps to manage EWM were to determine sizes of known milfoil patches followed by chemical treatment of EWM patches. This bold action was important to prevent milfoil from spreading, however it was not the preferred long-term solution. Our team has now shifted its focus to evaluating non-chemical treatment options combined with native plant restoration as a more effective long-term solution to control and potentially eliminate EWM infestation. To do that, we needed a comprehensive plant survey of the entire lake to confirm any new locations of EWM and to understand the composition and extent of all plant communities in Torch Lake.

This plant survey also serves to facilitate permit applications for future treatment methods, such as diver assisted suction harvesting, as required by state agencies, which often want detailed documentation of adjacent plant beds. Plant and algae growth are important indicators of lake aging (yes, even lakes age) so this survey would also provide an important baseline of all plant species and their locations that will help us track the ways Torch Lake is changing over time in a quantitative way.

Key Results

One of the most important findings of this survey was the fact that we did not find any new or previously unknown patches of Eurasian watermilfoil. It appears that the EWM that is present in Torch Lake, is limited to the 5-6 known patches on/near the lake that we have been monitoring and treating for the last few years. In addition, we did not find any other invasive aquatic plants in Torch Lake, which is good news!

Secondly, we learned that 16 different aquatic plant species live in Torch Lake. Muskgrass (*Chara sp.*) was found at 47% of the sampling locations and accounted for 97% of all of the vegetated area. Muskgrass is a native macro alga that is often finely coated in lime and smells a little musky. It often grows in monoculture and is an indicator of good water quality.

Most locations with plants were at a moderate or very light density, and the average number of species per location was just under 2.

Lastly, the majority of Torch Lake has no plants at all, which you probably already knew! Just under 2% of the littoral (or shallow) zone is covered in plants; more than 98% of the littoral zone is plant-free. There are no plants at all in the deep zones, which is typical for all lakes. This makes Torch Lake one of the least vegetated lakes in all of northern Michigan.

The survey also covered the Torch River lagoon located near the south end of Torch Lake. This area was created through dredging in the late 1800's and early 1900's. The substrate disturbance and shallow, slow-moving water, make it prone to plant growth and invasive species establishment; 37% of the lagoon is covered with aquatic vegetation.

Plant density was much greater in the lagoon than in the main lake. Plant diversity was also greater (20 species and an average of 3.5 species per location), as was the extent of EWM, which was found at nearly 50% of the sampling locations.

Places where sediment and debris can catch and collect will be more prone to plant growth; sheltered shores, depressions, obstructions and river mouths can all provide these conditions. Sediment disturbance, such as dredging will also encourage plant and especially invasive species growth. We did not find much growth in Torch Lake at river and stream mouths, but the rest of these conditions did foster aquatic plants.

Many more details on methods and findings are included in the full report that can be found on the TLA website at 3lakes.com. In addition, you can also find information on comparisons to other lakes and insights on how aquatic plant species and densities in Torch Lake may have changed over time.

Next Steps

Over the summer Tip of the Mitt Watershed Council will build a Story Map about the plant survey, which should be available by the time you get our next newsletter in October. A Story Map is an interactive website that includes maps and diagrams which allow the user to visualize the data and manipulate their view so they can explore the data in more depth.

The Story Map will also house data from our EWM team monitoring volunteers who several times a year observe the growth rate of existing EWM patches and track the effectiveness of treatment methods. If you have an interest in volunteering as a member of this EWM monitoring team, please email us at TLPA@torchlake.com

Thanks again to the Dole Family Foundation for funding this important plant survey and to you, Torch Lake Protection Alliance members, for allowing us to co-sponsor this project along with Three Lakes Association. We were motivated to do this study to protect Torch Lake from the encroachment of invasive species, especially Eurasian watermilfoil, but it also showed us another beautiful aspect of our lake. Small but very beneficial patches of native plant species like leafy pondweeds and billowing wild celery shelter fish and create quiet and serene oases of greenery in an otherwise bright and glowing water body. We are getting to know and appreciating this less well-known part of Torch Lake too.

This report was created in collaboration with Three Lakes Association. A version of this article will also appear in their newsletter.

TLPA—Protecting Torch Lake for 27 Years

Welcome Our New Board Member

Sharon Hill has recently joined the TLPA Board, and we are excited to have her. She is married to husband Bill, and they have 3 adult daughters. They have a Golden Lab, Cali, and two "grand-dogs". Her college was Michigan Tech and she spent nearly 40 years at GM and recently retired as an Engineering Manager. Her homes are in Grand Blanc, Michigan and in Milton Township on Torch River. She has been coming to the area most of her life with time on Lake Charlevoix, Elk Lake and now Torch River, initially as an avid water skier but now enjoying pontoon boats. She has been actively involved in the group TESA (Torch Elk Skegemog Alliance) and has worked with Milton Township and Antrim County on environmental issues. Her favorite pastimes include Jazzercize, landscaping/yard work, entertaining and spending time on Torch Lake and Torch River.

Support Our Business Members

A-Ga-Ming Golf Resort
Alden State Bank
Barker Creek Nursery & Landscaping
Birch Street Dental
BlueFin Residential Services (BlueFin Custom Painting)
Chemical Control Co.
The Chief Golf Course/BluePelican
Creative Characters Printing
Don Fedrigon Re/Max of Elk Rapids
Draper Construction, Inc.
Echo Quality Grinding
Elk Rapids Marina
Elk Rapids Electric
Fitzpatrick Insurance Agency
Grace of Alden
Kidd & Leavy Real Estate
Lake Living Services, Inc.
Mapleridge Construction
Torch Riviera
Nicolas Halek Realtor-Coldwell Banker Schmidt Realtors
North Country Power Generators
Northshore Dock
Pine Hill Nursery
Short's Brewing Company
TCarea.com Realty
Top Notch Heating, Cooling, and Geothermal
Urban Diversions
Village Market Food Centers

Milton Township RV Proposed RV Park Update

The lawsuit that TESA filed against the Brewers and the Antrim Conservation District to force stabilization measures that would stop continuous run-offs and further damage to the environment at the RV Park site was settled after months of mandated mediation. The parties reached an agreement for "whole site stabilization plan" with regular monitoring. Some of the specifics include:

- The Antrim Conservation District must monitor progress and provide *publicly available, regular updates* to the Antrim Conservation District board.
- Work should *start soon and to be completed in the fall*. Topsoil, mulch, and seeding must be done within 5 days after the work is finished, and no more than 15 trees may be removed (none along Torch River Rd) without going back for the Conservation District's approval.
- A mediation settlement avoided what could have been over $100,000 in Legal and Engineering fees

As a reminder, two applications for an RV Park have been submitted and both denied by the Planning Commission. The first denial was appealed in court and rejected by the judge. *The second denial was also appealed and has yet to come before the judge.* Based on the first ruling, it is likely the second denial will may be rejected as well.

For additional information, updates are posted at the website, TESAorg.org.

Welcome New Members

Laurence & Mayo McCarty
Jeffrey & Angie Wohlschlegel
Dan & Sheila Wright
Linda & Kevin Woodward
Lance & Sarah Fensterman
Cory Stepanek
Gabrielle & David Bagnasco
Mario & Annette Sciberras
Ann Zwerk

Memorials

Terry Malone Lake Management Memorial Fund

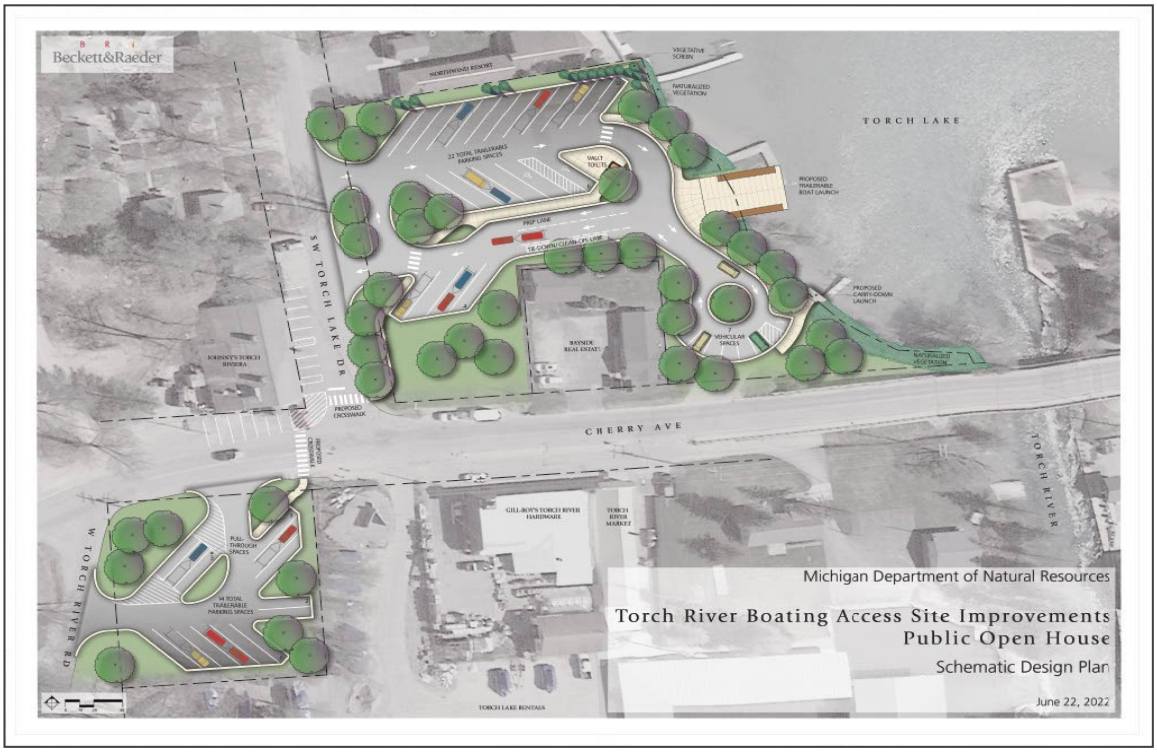
Mac Whitehouse
John & Linda Spevacek
Robert & Beverly Keller
Jeff & Donna Green
Bretty & Barbara Seabury
Dave & Niki Martin
Andrew Kinnear & Jennifer Powell
Dole Family Foundation

Ivan Foerster

Timothy & Patricia Fell

DNR Torch River Boat Launch

The Department of Natural Resources (DNR) held a public review June 22, 2022 on the proposed new boat launch on the corner of Cherry Ave and S.W. Torch Lake Dr. The event was well attended by area residents. The proposed plan was developed by Beckett and Raeder and included upgrades to the current parking lot on the corner of Cherry Ave. and W. Torch River Rd.



The proposed plan for the dual launch ramp calls for access off S.W. Torch Lake Dr. and includes a vaulted toilet, six vehicle slots and 22 trailer able parking slots. The other lot would have 14 trailer able parking slots. The ramp will accommodate boats up to 26 feet long. There will be improved storm water management including a naturalized vegetated edge on the perimeter. The site would be barrier free and comply with all ADA standards. There is no boat wash station planned. The Parks and Recreation Division (PDR) of the DNR out of Traverse City will manage the site. Policing the area will fall upon the PRD Rangers, DNR Conservation Officers, and local law enforcement agencies.

There were criticisms and suggestions for modifications of the plan from the public. Traffic congestion in the area will remain a problem and parking will still be inadequate. The parking slots for vehicles with trailers appear to lack sufficient width for maneuvering.

The site has been cleared of prior structures and would be ready for construction once a plan is finalized and the necessary permits are obtained. There was no mention of specific timing to complete the project. TLPA will continue to monitor future developments.

Help Needed to Keep Invasive Plant Species Out of Our Lakes

For the third year in a row, Torch Lake Protection Alliance (TLPA) and Three Lakes Association (TLA) have combined forces and funds to monitor and control Eurasian Watermilfoil (EWM), an invasive aquatic plant that poses a potential threat to Torch Lake. This green plant grows up toward the surface and has a feathery appearance. While not harmful to humans or animals, EWM can form large mats of floating vegetation that can shade out native aquatic plants and impede recreational activities such as swimming and boating. Some lakes have been completely covered by this invasive plant.

As reported in a previous article on the Torch Lake plant survey, no new patches of EWM were found on in Torch Lake in 2021. While that is good news, EWM spreads very easily when fragments of the plant re-root themselves in a new location. Because of this, vigilant monitoring and timely treatment is essential to control the spread of this invasive species.

We are asking for your help in our efforts to control Eurasian Watermilfoil. If you see plants growing in the lake that resemble those in the photo left, please email the Torch Lake Protection Alliance at **TLPA@torchlake.com** or Three Lakes Association at **3lakes.info@gmail.com** and one of our volunteers will make arrangements to check it out. Catching and treating EWM early protects the lake and is far more cost-effective than treating large established patches.

Thanks in advance for your help in keeping our lakes free of invasive plant species for future generations!

TLPA—Protecting Torch Lake for 27 Years

Torch Lake Protection Alliance

2022Annual Meeting

Our annual member meeting will be held on August 2nd, starting at 4:30 (check-In 4:00). The meeting will be held at A-Ga-Ming Golf Resort. You should have received your invitation by mail. You can also register online at **TLPA.co** (click the events calendar and then the link is August 2). The TLPA business meeting will be conducted, followed by a question-and-answer session. Following the meeting, food and drinks will be served. This event presents an excellent opportunity to meet and interact with other members and a chance to express your thoughts and concerns to the TLPA Board.

TLPA.CO

Have you checked out our new website yet?
What are you waiting for?

Through our new website, you can make instant changes to your membership including renewal and modifications.
You can make a one-time or reoccurring donation.
Get the latest news on the many activities of TLPA.
View and support our great business partners.
View members of the TLPA Board and Committees.

TLPA.CO

Your instant source for information on our Torch Lake Protection Alliance!

Find us on Facebook

TLPA—Protecting Torch Lake for 27 Years