



# Officers

Tina Norris Fields, President Fred Sittel, Vice President Ed Gourley, Treasurer Nancy Hanson, Secretary Dean Branson, Past President Len Franseen, Director Emeritus

### **Zone Directors**

Clearwater Township:
Tina Fields, Cheryl Lynn Fields
Milton Township:

Debbie Craig , Rick Doornbos Torch Lake Township:

Steve Laurenz, Arlene Westhoven Central Lake Township:

Todd Collins, Dick Williams
Forest Home Township:

Fred Sittel, Phil Weiss

Helena Township:

Nancy Hanson, Bonnie Robbins Custer Township:

Mike Bertram, Beth Hawkins Kearney Township:

Duane Drake, Ann McClelland

# **Directors at Large**

Stan Dole, Marge Drouillard,
Patricia Roush, Norton Bretz,
KC Babb, Art Hoadley, Becky Norris

### **Committee Chairs**

Becky Norris, Water Quality Todd Collins, Membership Patricia Roush, Education Art Hoadley, Water Safety Duane Drake, Lake Monitoring Program KC Babb, Publicity

# Staff

Intern

Leslie Meyers, Executive Director Lois MacLean, Administrative Assistant Rachael Horn, Research and Grants

3lakes.com

# 2016 Accomplishments

Through your annual membership, your additional generous support, and countless hours of volunteer time, TLA was able to successfully participate in, and complete, a variety of projects in 2016. You can always find more information on our website: <u>3lakes.com</u>.

# 50 years and Still Swimming with the Fish!

On August 11, 2016, over 100 folks gathered to celebrate our 50th Anniversary. Tina Norris Fields shared the following:

"The people who started TLA would be delighted, I am sure, to see how far this organization has come in the last fifty years. Indeed, I believe they would be pleased, and probably more than a little surprised at what their initial passion has accomplished through the hands of those who followed.

"Let's celebrate the vision and determination of that small group of neighbors, whose example of dedication to a worthy mission has led us to this moment.

"They understood the need to be vigilant, devoted, and faithful stewards of the precious waters that bless this region. They showed us the way. Now, it is our turn to point into the future and strive to show the way for the coming fifty years."

# Golden Brown Algae



Many thanks to those who have helped us in 2016 to continue and extend our study of Golden Brown Algae (GBA), the diatoms that make up the orange-y stuff coating a good deal of the lake floor in the lakes of this region. Property owners who have allowed us to collect samples on their properties; consultant experts from Michigan State University, University of Colorado, University of Wisconsin and University of Michigan Biological Station; people and organizations that have contributed financial support; and numerous volunteers

who have helped with the field work, data analysis, and interpretation have all helped immeasurably. Our consultant experts provided an exciting educational presentation this summer. The slide presentation is available on the TLA web site, 3lakes.com.

This year we included study sites in Torch Lake, Clam Lake, and Lake Bellaire. We also added household well water and lake floor sediment to our samples being assayed for nutrient chemistries; and collected algae samples buried in the lake floor to learn if the populations of diatoms have been changing over time. Where we go from here will depend a lot on what our results from this year's study tell us. This could include seeking grant money to hire the necessary expert help to, for example, track underground water flow and lake floor core samples to assay for changes over time in organic material.

# **Science Education Outreach Program**

The Science Education Outreach Program (SEOP) is a grant program developed by TLA to build relationships with area schools to help educate the future stewards of our lands and lakes. It began in 2007 and has awarded grants totaling over \$68,000.

SEOP grants provide materials, equipment and experiences that enhance the science curriculum but are not within the districts' budgets. Many thanks to a generous TLA membership over the years and to Gordy Schafer of Dockside - Torch Lake for additional matching grant funds.



In 2016 we sent students on overnight trips to Camp Hayo-Went-Ha, Lake Superior State University, Ogden Fish Hatchery, plus day trips to the Grass River Natural Area. We were also able to put science magazines, workbooks, grow light capabilities and waders into classrooms.

### Benthic Barriers and Eurasian Water Milfoil (EWM)



The TLA Interns experimented with Benthic Barriers again this year to combat the invasive Eurasian watermilfoil (EWM). EWM is a nuisance invasive that through excessive growth causes native plants to be replaced, reduces plant diversity, impacts fish habitat, and interferes with boating and swimming. This year, we found

that plant life did grow back, both the good and the bad. The summer interns have passed their findings and recommendations on to the Water Quality Committee for formulating a plan for 2017.

TLA has been monitoring EWM since the late 1990's. We have utilized limited chemical treatment, diver assisted suction and rudimentary benthic barriers to combat its spread. EWM continues to make its home in 4 locations: Butch's Marine, the Clam River (adjacent to Butch's), the Embayment between Stony and Lone Tree Points and Alden Harbor. It is also being reported in Torch River, the Bayou and Elk Lake.

#### **Interns**

Since 2004, TLA has sponsored a high school internship program under the direction of our Executive Director. Each year, the interns study the aquatic environment. The internship includes over 300 hours of research, training and sampling.

For 2016, they focused on the Large Woody Debris project, but also undertook E. coli, macroinvertebrate and Hydrolab sampling, assisted the MDNR with shocking streams to create fish inventories, manned our booth at the County Fair and undertook the benthic barrier project. They sure were busy!

# **Large Woody Debris**

The summer of 2016 has been quite successful for the LWD project on Grass River. With the permit from the MDEQ being



granted to install 10 structures, work has been steadily under way. Five structures were installed with the help of the interns, board members, and volunteers. The new channel monitoring process developed this year allowed us to acquire better depth measurements of

the river bottom near the LWD sites. We will be taking measurements next spring to compare to the measurements from this summer in order to get an idea of where the sediments are being redistributed. Five more structures will be able to be installed under the current permit that goes until 2020.

### **Fish Shelters**

2016 saw the completion of the Fish Shelter Project in collaboration with Elk-Skegemog Lakes Association, Friends of Clam Lake and Intermediate Lake Association. Interactive



maps with GPS coordinates for all 40 shelter sets are available on our website and paper copies can be found in local marinas. What's next? Discussions are taking place about expanding into near shore habitats for fish. Stay tuned.

### A.C.U.T.E

2016 saw the successful completion of the work led by TLA's participation in ACUTE (Antrim County United Through Ecology). Funding from the Antrim County Board of Commissioners assisted the Mancelona Water & Sewer Authority installation of improvements which mitigate the effects of the TCE plume.

#### **Torch Lake Sandbar**

Together with TLPA, local governments and public safety agencies, TLA worked to achieve a much improved situation at the Torch Lake Sandbar over the 4th of July weekend.

### **Educational Events**

During 2016, TLA provided environmental education at events which included:

- Golden Brown Algae Update was held on July 14.
- The Antrim County Fair

# **Water Quality**

During 2016, TLA continued ongoing water quality monitoring activities including:

- Participating in the Michigan Lakes and Streams Associations' Cooperative Lake Monitoring Program.
   Our lakes continue to be exceptionally clean.
- E. coli sampling at 27 locations.
- Investigating, monitoring and treating Eurasian water milfoil.
- Participation in Elk River Chain of Lakes Watershed Plan Implementation Team and the creation of the Elk River Chain of Lakes Watershed Plan in conjunction with the University of Michigan.

#### **Other News**

TLA continues to publish its quarterly newsletter, sharing pertinent environmental information.

TLA is assisting in researching the possible removal of aging small dams.

#### **2017 Plans**

In 2017, your membership and donations of time and money will allow us to continue pursuing our Mission by funding our standing projects and programs and further foster....

- The study and remediation of Golden Brown Algae
- Monitoring the Large Woody Debris project on Grass River
- Suppressing Eurasian water milfoil
- Environmental Education throughout the watershed.

#### Join or Renew

Please join or renew your membership today and consider an additional donation to support a specific project or program.

Our watershed thanks you!

To join or make a donation, go to our website, <u>3lakes.com</u>, and use the PayPal option or mail us a check: TLA, P.O. Box 689, Bellaire, MI 49615

