

TLA Quarterly

JULY 2012

President's Letter

It is with mixed feelings that I write my last letter to TLA members as the Association's President. My only reason for stepping away from the role as President is that I've served in this role for the last four years and it is time for someone else to do the job. As Past President, my intentions are to remain actively involved in the Association's outstanding programs and activities.

This letter provides an opportunity to express appreciation to our leadership team and to reflect on a vision of TLA's strategic direction. Part of TLA's direction is based on the legacy of previous leaders. When I joined TLA in 2003, Tim Hannert was the Executive Director and Dick Garcia was President. Since then I have had the pleasure of working with Norton Bretz and Leslie Meyers as Executive Directors and Bob Bagley as President...and a large number of dedicated officers, project leaders, committee chairs, zone directors and volunteers.

Since becoming a member I have been very impressed with TLA's success in working as a collaborative partner with other organizations where a portion of their Missions is in common with TLA's Mission. There appears to be a desirable synergy associated with this network of collaborating organizations that enables us to accomplish more by working together than the sum of what we can accomplish by working alone. For a variety of reasons some collaborative ventures have been more successful than others, but the following projects are some recent examples of successful win-win initiatives:

- TLA's Wish-List Program where science teachers in schools within the watersheds of Torch, Bellaire, and Clam Lakes request and receive grants for specific items with which to enhance their environmental science curriculum.
- We were delighted that on May 21, 2012 Milton Township adopted an ordinance requiring an inspection of septic systems at the time of title transfer. To help manage phosphorus loading into these lakes, we started advocating for this kind of ordinance in 2008 with the health department and officials from each of the eight townships with local jurisdiction.
- The Fish Shelters Project and the Grass River Sedimentation Project are major, multi-year collaborative activities involving many partners including the Elk River Chain of Lakes-Watershed Protection Implementation Team as coordinated by Tip of the Mitt and the Watershed Center. Other partnering organizations in these projects include Elk Skegemog Lakes Association, the Conservation District, Friends of Clam Lake, Intermediate Lake Association, and Grass River Natural Area.

In 2007, DTE Energy Foundation recognized the value in TLA's successful collaborative partnerships by awarding a \$25,000 no-strings grant. Hopefully we will continue pursuing our Mission-based goals through effective partnerships.

Sincerely,
Dean Branson

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(See insert)

The Mission of the Three Lakes Association is to provide leadership to preserve, protect, and improve the environmental quality of the Elk River Chain of Lakes, especially Torch Lake, Clam Lake, and Lake Bellaire, for all generations



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Founded 1966

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Todd Collins, Membership
Patricia Roush, Education
Bob Bagley, Water Safety
Duane Drake, Lake Monitoring Program

**The TLA Quarterly is published by
the Three Lakes Association**

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Golf Outing Follow-Up

The 9th annual TLA & GRNA Charity Golf Outing was a great success. The weather cooperated beautifully and approximately \$6000 was raised for both organizations educational programs. Everyone was a "winner" thanks to our generous sponsors.

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*Please take time to
patronize and thank them
for their generosity.*

Project Announcement: One free shoreline greenbelt landscaping

TLA and Mullett Lake Area Preservation Association were invited by Tip of the Mitt Watershed Council to participate in a 2012-2013 project to demonstrate the benefits of shoreline greenbelt landscaping. On June 18th, a \$17,000 grant from Midwest Glacial Lakes Partnership and the National Fish Habitat Action Plan was awarded to the Watershed Council for this project.

According to Jennifer Gelb, Tip of the Mitt's Restoration Ecologist, and coordinator for this project, "our goal is to build on the recent shoreline greenbelt surveys conducted on Torch, Clam, and Bellaire Lakes in 2007 & 2008, and on Mullett Lake in 2008. Since several opportunities to improve shoreline greenbelts were identified, the results from these surveys will be part of the criteria used to determine the recipients of a free demonstration site." Since TLA is an active partner in the Elk River Chain of Lakes Fish Shelters Project, and because near-shore fish habitats are known to benefit from greenbelts, the proximity of candidate shoreline properties to fish shelters may be another criteria for selecting the recipient of a free shoreline-landscaping project.

In addition to a free shoreline greenbelt-landscaping project, this grant also provides for a special workshop for shoreline property owners for each association to showcase the aesthetic value of deep rooted, native plants in the greenbelt area of a shoreline. More details will be announced in our September Newsletters. Art Hoadley will be TLA's liaison for this project.

Fish Shelter Project – The Fish Have Arrived!

by Leah Varga, TLA's 2012 Research Associate

Following months of preparation and planning by TLA's Fish Shelter Committee, the MDEQ approved our joint application (with Intermediate Lake and Elk-Skegemog Lake Associations) on June 1. On June 6th, a team set out to deploy the first set of shelters in Clam Lake. Each of the 80 sites will consist of three different structure types: slatted-wood cube, tree stump, and slab wood tree. The team successfully lowered all three shelters at this particular site in Clam Lake. Hearing that the first shelters were installed, I was excited to go diving to see them! Unfortunately, severe thunderstorms postponed the dive for two days.

Prior to the preliminary dive, Leslie Meyers, Dean Branson, and I met to discuss my role for the summer as the Research Associate, participating mainly in the fish shelters project, but also assisting in the mapping of Eurasian water milfoil throughout Torch, Clam and Bellaire Lakes. Following this, Dean, Fred Sittel, and I met with Heather Hettinger, the MDNR Fish Biologist, to discuss the methods and protocol I would be following when observing the shelters and documenting the abundance of fish. The data I collect will be incorporated into a handbook for evaluating the shelters as this is a five-year project.

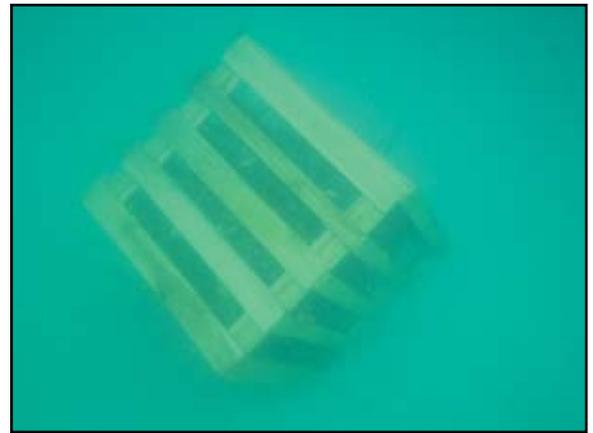
Finally, on June 20th, the weather cooperated and we headed out to locate the site in Clam Lake where the three shelters had been previously dropped. Gary Knapp was kind enough to be the boat captain. Fred Sittel was my snorkel buddy, and Susan Sittel provided scribe services. The biggest challenge for this first dive was to find the shelters. Fred and I swam in methodical circles around the approximate area, looking specifically for the slatted-wood cube, which should have been the most visible of the three. Eventually we found it, and I descended to about eight feet to look more closely. To our surprise, the tree stump was right next to the cube. Although unexpected, this is not a detriment to the overall goal of the project. While circling the two structures, I counted five fish, all within three to seven inches. The visibility was low and



**Ken Krentz, Jim Gilleylen, Adam Jankowski and Bob Bagley
deploying a slab tree into Clam Lake**



Leah observing the Clam Lake Shelter Site



Slatted Wood Cube descending into Torch Lake

thus we never could find the slab wood tree shelter, but the trip was overall very successful as the first dive of this project. New GPS coordinates were then set.

On June 24, another set of shelters were deployed in Torch Lake near Wilkinson Creek. Accurate GPS coordinates were charted. The drop went smoothly. Please follow us on Facebook at [facebook.com/3lakes](https://www.facebook.com/3lakes) and our website for regular updates. Until then, you can locate the two sets of shelters where the water depth is about 15 to 16 feet deep with the following GPS coordinates: Clam Lake N 44.93235 W -85.25983 and Torch Lake N 45.09552; W -85.33549. These coordinates represent the center point for the set of three types of shelters at each location.

Volunteer Divers Wanted!

Are you open water dive certified? If so, we need your assistance. Leah Varga, our 2012 Research Associate could use a dive buddy for Fish Shelter evaluations. We will supply the tank and air. Please contact Leslie Meyers at 734-777-2335 to volunteer.

MISSION: EDUCATION

by Patricia Roush

The goal of TLA's Environmental Science Education Outreach Program is to help cultivate a sense of stewardship of the lakes, streams, and land in the hearts and minds of young people who will be part of the next generation living within the watersheds of Torch, Bellaire, and Clam Lakes. Our mission is to work with science teachers and students in the school districts of Central Lake, Bellaire, Kalkaska, and Mancelona.

By offering supplemental assistance to help local science educators we hope to enrich their environmental science curricula. Science teachers are invited annually to submit a grant application to TLA. These Wish-List items include science materials or experiences that enhance science instruction, but are not within the school district's budget constraints. TLA awards as many Wish-List grants each year as our budget allows.

In addition to the Wish-List grants, each district is provided with funding for one class of students to participate in a schoolship excursion, as part of the Inland Seas Education Association's program. The environmental characteristics of the Grand Traverse Bay mirror those of the inland lakes and streams making the schoolship experience invaluable to understanding and protecting our waters.

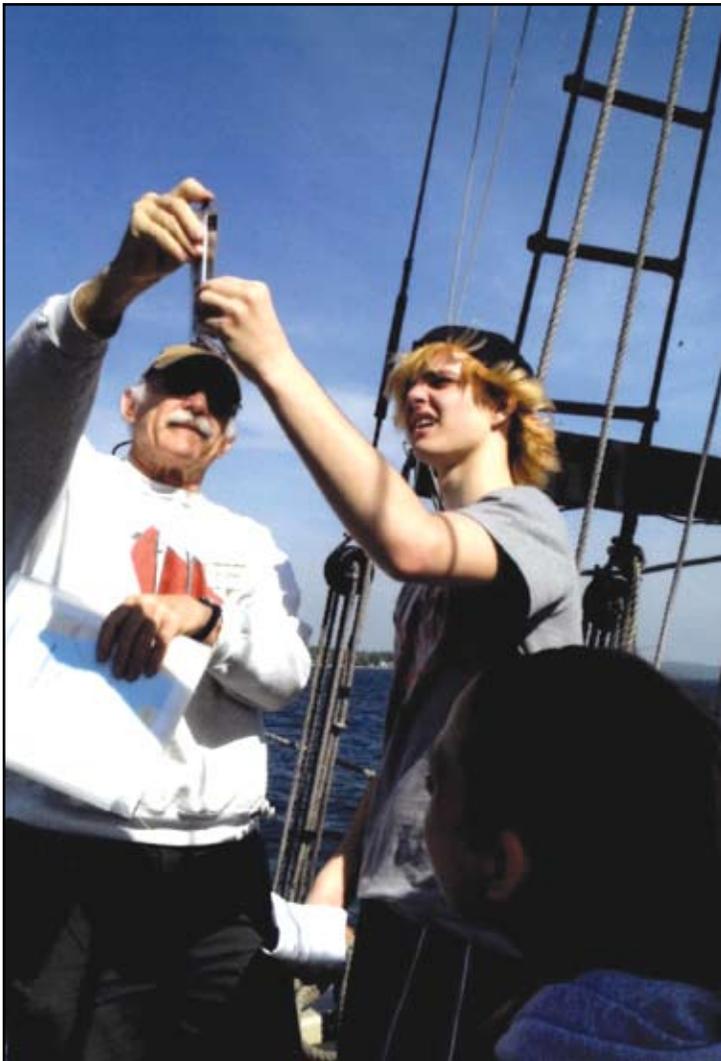


Central Lake High's water quality equipment in action on Finch Creek

For 2012-2013, Inland Seas Education Association (ISEA) will use funding from a Dow grant to match Three Lakes' commitment. This means that TLA's promise of one trip per district per year will be met with our share totaling \$1600. We are delighted to have ISEA partner with us.

Teachers and students in Bellaire, Central Lake, Kalkaska and Mancelona acknowledged TLA's grants with prose and photos.

Our mission continues.



Aboard the Schoolship



What's in the stream?

Dear Three Lakes Association,
 Thank you for giving us money for our trip to Inland Seas it was so fun, I learned about so much stuff but my 3 favorite were learning about fish, Plankton, and invasive species. I learned that back in the 1800's people emptied water into the Great lakes which brought invasive species. Second I learned about plankton. Did you know that plankton gives us most our oxygen and their population is decreasing. Last was fish. I learned that once you are a certain age you need a license to fish. Thanks again.

Sincerely, Joel Seely

June 5, 2012

Dear Three Lakes Association,

Thank you for giving us the grant money that allowed us to go on our Inland Seas field trip.

I learned about plankton. I also learned about water chemistry. The third thing I learned was that there is oxygen in water.

To take a quick shower. Not to leave the water running when brushing teeth, turn it when washing dishes in the sink. That's how to save water.

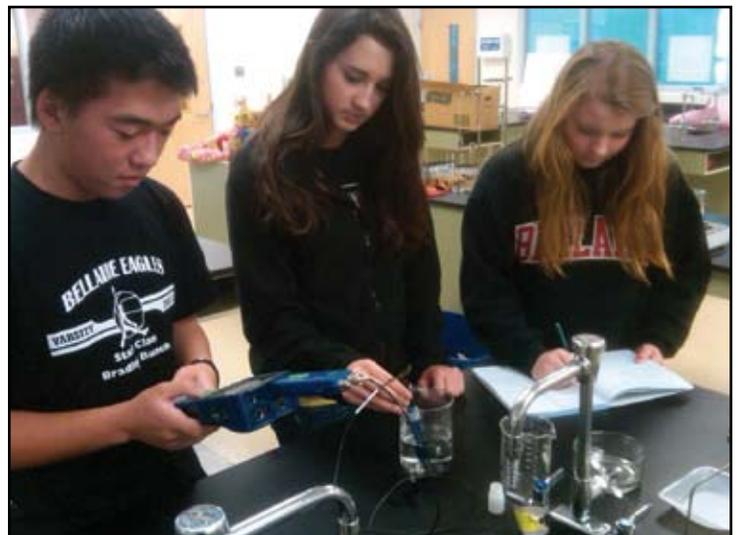
Sincerely, Derek



Looking into water

Alexis
 Alexis
 Three Lakes Association

I liked the water cycle because because I got to see how it works. I liked the Microscope because I could discover the stuff that we used. I liked Grass river nature area because we could learn.



Assessing water quality

TCE Plume: Update

by Dean Branson and Gary Knapp

The goal of TLA's recent advocacy efforts with State legislators has been to seek \$300,000 in the State's 2013 Michigan Department of Environmental Quality (DEQ) Appropriations to pay for preliminary engineering for a replacement well field for the Mancelona public water system that is not in the migrating path of the trichloroethylene (TCE) plume. Representative Greg MacMaster was our primary entrée to the State's budgetary process for the DEQ. With the governor's approval of the State's 2013 Budget in June 2012, this goal was achieved!

The preliminary engineering work is expected to include drilling test wells to confirm the capacity and quality of water in the aquifers at several different possible locations for a new well field. The engineering work will also include the selection of the preferred location for the new well field and the design for the pumping and piping to connect the new wells to the Mancelona area's existing public water system. The blueprints for the new well field will be used to obtain bids for the construction and connection, which may cost an additional \$1.2M to \$1.6M of new DEQ appropriations over the next three or four years.

In anticipation of possible contamination of the existing Cedar River Well Field some time in the next 7 to 10 years, the new well field should be functional by 2017. This proactive solution to the TCE plume problem was viewed by the State's House of

Representative's Senate's Committees on DEQ Appropriations as saving tax payer money by replacing the well field sooner rather than later when the circumstances were more urgent and the cost would be much higher.

The first meeting that Rep. MacMaster arranged was with Rep. Eileen Kowall, Chairperson of the House Committee on DEQ Appropriations, and second meeting was with Senators Mike Green and Howard Walker, Co-Chairs of the Senate Committee on DEQ Appropriations. In addition to TLA advocating for these funds as part of an informal group "Antrim County United Through Ecology", Steve Grill, President of the Council of Presidents of Property Associations in the Shanty Creek-Schuss Mountain-Cedar Village areas was very involved. Pete Bigford, Chief Operating Officer for Shanty Creek Resorts submitted a Letter of Support and Pete Garwood submitted a Letter of Support on behalf of the Antrim County Commissioners.

The details of the next steps are still being worked out in terms of DEQ grant applications, Requests for Proposals, and the involvement of the Mancelona Area Water and Sewer Authority. The first meeting to work out these details is scheduled for July 3, 2012. We understand that TLA members have been very concerned about this TCE plume for many years. We will keep you abreast of the actions regarding a new well field as they develop.

Summer interns protecting our lakes & streams

Three Lakes Association's summer interns and a volunteer mentor are downloading data from a water level data logger in Shanty Creek near the M-88 crossing. Zach Pederson, Elk Rapids High School, and Alec Stilwell, Bellaire High School are connecting the water level logger to the laptop on the stream bank while Sierra Kintigh, Bellaire High School, and Fred Sittel, TLA volunteer, are preparing the laptop to receive the data.

Measuring stream flow during times of normal flow and times of storm events is an important part of a project to understand why sediments are accumulating in Grass River and to pinpoint some of the opportunities to reduce the amount of stormwater-related sediment from Shanty Creek. The water-level data logger captures the data every 30 minutes. The interns also measured the Shanty Creek flow rates so they can plot the profile of flow rates during storm events.

These summer interns will also be involved in searching the lakes for pioneering colonies of Eurasian water milfoil, an invasive aquatic weed that can choke waterways near shore areas in harbors, bays, coves, and around docks. At the end of the summer, after spending at least 60 hours of community service time on several different types of water quality projects, these interns will prepare a report and present their findings to Three Lakes Association's Board of Directors. In partnership with local schools, these interns also understand that they will receive ½ credit hour of independent environmental studies on their transcript for successfully satisfying the internship requirements. More than 40 students have participated in this summer internship program over the last eight years.



2012 Interns Sierra, Alec and Zack downloading flow data with volunteer Fred Sittel

TLA's 2012 Grass River Sedimentation Project

By Dean Branson

TLA and Elk-Skegemog Lakes Association (ESLA) have again joined forces to further investigate the sources and possible solutions to the accumulation of sediment in Grass and Rapid Rivers. This year we have retained the services of the following stream sedimentation experts to expand on the 2011 characterizations of sediment sources within these two watersheds:

- Anthony Kendall, Principal Investigator, MSU-Geological Sciences
- Paul Richards, Co-Investigator, Brockport College, Brockport, NY
- Brett Fessell, Co-Investigator, Traverse Band of Ottawa & Chippewa Indians
- Kevin Cronk, Co-Investigator, Tip of the Mitt Watershed Council
- David Hyndman, Co-Investigator, MSU-Geological Sciences, Dept. Chair

Several of the same volunteers who helped investigate sedimentation in Grass and Rapid Rivers in 2011 have expressed an interest in working with these experts in whatever ways might be helpful. So far the experts have encouraged a review of historical records that can help explain the changes in these rivers in their aerial photographs from 1938 compared to 2010. Both TLA and ESLA are pursuing this request. On TLA's behalf, the Bellaire Area Historical Society is reviewing old records for information that may be pertinent to sedimentation in Grass River. If you have old photos of the dredging of Grass River or building the dams on the Intermediate or Cedar Rivers, please let us know...phone call (231-350-7234) or email: info@3lakes.com.

Another aspect of this project, which is a follow up of previous work, is to document a few representative stormwater events on Shanty Creek. Earlier this spring we installed a water-level data logger near the M-88 crossing. Since that time the data logger has recorded the rise and fall of water following several storm events. This data is being converted into flow data by multiple measurements of the flow rate. The information about these stormwater events will assist the stream experts in determining the contribution of stormwater erosion to the accumulation of sediment in Grass River.

By interactively working together, we anticipate that these experts will accomplish more than if they worked alone. The combination of their expertise and their special pieces of state-of-the-art equipment will expedite the calibration of the Soil-Water-Assessment-Tool (SWAT) models that were built in 2011. These experts will generate site-specific hydrologic and geomorphology information from high-tech pieces of equipment such as an Acoustic Doppler Current Profiler & Current Meter connected to a survey-grade GPS system. Half of their fieldwork will devoted to Grass River and its three tributaries, Shanty Creek, Cold Creek, and Finch Creek. And the other half of their time will be devoted to similar fieldwork in the Rapid River watershed. One of the expectations from this work will be a prioritized list of stream restoration activities, which may provide the basis for future grant applications. We view the expertise involved in this work as a prerequisite for many grant-making institutions.

TLA and ESLA each contributed \$6,000 for a total of \$12,000 for grants to pay for this 2012 Sedimentation Project.

membership counts!

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* * * * *

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“Antrim County Underground” Tuesday, August 14 • 5 – 7 pm Depot Park, Alden MI

The annual In-the-Drink Water Quality Report goes underground.....
Gary Knapp, coordinator for the regional advocacy group, Antrim County United through Ecology (ACUTE) revisits the Mancelona TCE (trichloroethylene) plume. Learn about the current status of the plume. **How does it affect our water quality? What's being done?**

Dr. Grenetta Thomassey from the Tip of the Mitt Watershed Council gives an update on policies and legislation concerning hydraulic fracturing for gas and oil exploration in Michigan. Check out informational displays and enjoy a wine and hors d'oeuvres reception following the presentations and Q & A.

Co-sponsored by Grass River Natural Area, Three Lakes Association, Torch Lake Preservation and Friends of Clam Lake in partnership with Antrim Conservation District, The Watershed Center and the Tip of the Mitt Watershed Council..

