

# TOMAHAWK LAKE

Association, Inc.

*Lake life in the Northwoods*

Hazelhurst • Lake Tomahawk • Minocqua • Woodruff

GO ONLINE TODAY TO DONATE

[www.tomahawklake.org](http://www.tomahawklake.org)

## President's Letter

by Noah Lottig, PhD, TLA President

Dear friends, neighbors and fellow lake residents,

It is early October and fall colors in the Northwoods are close to peaking. As a year-around resident on the lake, this is one of my favorite times of the year. As I look back over the summer, I am struck with a feeling of gratitude for all the work that folks have contributed to preserving and protecting this amazing lake that we all love so much. I want to extend a special thank you to Ned Greedy, our Executive Director, for all that he does overseeing a significant portion of activities each year. I also want to thank the members of our Board of Directors. We are a working board and it is humbling to know the amount of collective behind-the-scene time this board dedicates to the lake. Finally, I'm excited about the new board members that have joined and the fresh perspectives and new insights they bring to the table.

Throughout this newsletter, you will find great information about all that we are doing. I encourage you to take the time to read the various articles. If you have any questions about the Tomahawk Lake Association, or the lake in general, feel free to reach out to me and I'll do my best to answer them or direct you to somebody who can.

Finally, as you know, your *Fair Share* contributions are critical for supporting all the activities that TLA is involved in and is our primary source of revenue. I want to personally thank all of you that have contributed this past year to support our activities. If you haven't contributed your *Fair Share* yet, there is still time to help support our 2019 activities. Enclosed you will find a membership form that you can mail, or you can also sign up online on our webpage. All donations need to be received by the end of December to count towards your 2019 *Fair Share* contributions.



*Noah*

218-310-7460

[nrlottig@gmail.com](mailto:nrlottig@gmail.com)

### DEDICATED TO TOMAHAWK LAKE

The Tomahawk Lake Association is the only resource dedicated exclusively to Tomahawk Lake. This does not mean that the issues we address necessarily are unique to our lake, but they are of high concern to those who care about the lake. Tomahawk Lake unites us as an "interest group," and therefore gives us greater capacity to have an impact on our shared concerns through our combined efforts, financial resources and political influence.

### SIGN UP ONLINE FOR E-NEWSLETTER

[www.tomahawklake.org](http://www.tomahawklake.org)

## TLA Christmas Party

Saturday, December 28

4:00-7:00 PM

Oppenheim Residence  
7848 Leary Road, Minocqua

*Please bring an appetizer to pass.*

RSVP to Margo at 715-614-3722  
by December 21

*See your summer friends  
in the winter!*



Join our Facebook  
page at: [https://  
www.facebook.com/  
groups/104527072922/](https://www.facebook.com/groups/104527072922/)

[info@laketomahawk.org](mailto:info@laketomahawk.org) | [www.tomahawklake.org](http://www.tomahawklake.org)

Tomahawk Lake Association  
P.O. Box 535  
Minocqua, WI 54548

# "What TLA Did Last Summer"

by Ned Greedy  
TLA Executive Director

The 2019 summer season is now history. All the boats and water toys have been put away. All the docks and shore stations around the watershed have been removed from the water, and our local residents are polishing their snowmobiles in preparation for the time of year when our water is hard. By now the winter holidays are close at hand if not past, and the prospects for a long and quiet winter season are good. As 2019 comes to an end however, *it's good to look back at the past summer's season to understand* what challenges were taken up and what results were accomplished. Below are the areas that we wanted to focus on:

## Aquatic Invasive Species

You may recall that the Tomahawk Lake Association took up a number of initiatives that we hoped would give us direction as we strategically looked to the future. We wanted to test ideas and initiatives to see if a clearer picture of the way forward in our efforts to control aquatic invasive species and particularly Eurasian water milfoil (EWM) could be seen. Everything from "leave it alone" to applying contact herbicides in targeted areas was on the table.

In larger areas of Eurasian water milfoil infestation, where EWM plant density has overwhelmed our ability to control it, we wanted to test the efficacy of mechanical harvesting by mowing.

## Shoreline Restoration

We wanted to expand our Shoreland Restoration Program, with an eye toward getting our shoreland owners more knowledgeable and involved in the health and well-being of their individual shorelines. We wanted to better understand the critical habitat locations for wildlife and fish within our watershed, and the role that the individual shoreline owner plays in the protection of these locations.

## Building a Lake Community

We also wanted to continue our efforts in bringing the Tomahawk Lake watershed together as a lake community to help us all focus on the initiatives and programs which will enhance the health and beauty of our lake going forward. Our organization's goals are watershed wide and our desires have been to create consensus from all areas around the lake to work toward realizing those goals. Our social programs are aimed at creating the close neighbor to neighbor relationships to build that consensus.

## Building Inclusion for Improvement

Finally, perhaps our most important ongoing goal is to get more and more of our shoreline owners involved in the efforts to protect and enhance the Tomahawk Lake watershed.

**We will never make meaningful long-term progress if less than half of our shoreline residents participate in our efforts!**

## That means increasing the Tomahawk Lake Associations membership!

If you're *not* a member of TLA, you should be. And if you *are* a member and your neighbor is *not*, please tell your neighbor about the Tomahawk Lake Association efforts on their behalf and **ask them to join our ranks.**

As you read through this newsletter, you'll find articles on each one of the areas mentioned above that we identified as important coming into the spring of 2019. Please feel free to contact the writer of each one of these articles to get a better understanding of what we did and what was gained.

So, enjoy the rest of this newsletter and again if you have any questions please ask any member of our Board of Directors. We're glad to give you the answers that you need.

*Ned Greedy*

TLA Executive Director  
edgreedy@gmail.com

## Margo's Minocqua Minute

- The new Torpy Park Pavilion was dedicated on Beef-a-Rama weekend. A ribbon cutting ceremony was held with all the contractors or businesses that donated their time and materials to the cause recognized.
- Pukall Lumber has bought Minocqua Hardware south of Minocqua. Plans to open Jan. 1.
- Lakeland Natural Medicine opened a store in the old Popov building across the highway from Paul Bunyan.
- Minocqua Pizza has closed and is for sale.
- A new CBD merchandise store opened in the Train Station Shops called Innovative Hemp Solutions.
- Alexandra After All Studios, located across from the Minocqua Post Office, is offering bridal make-up and photography.
- The Picture Taker, south of town off Hwy. 51, has built a new larger building for his business right next door to the old building which was removed.
- The Copper Top Cafe, formerly Island City Ice Cream, is open and now serving breakfast as well.
- Good sign...a beer distributor was spotted at El Tarasco... we might have a Mexican restaurant after all.
- River Valley Bank has changed its name to Incredible Bank.
- In the Spring Newsletter I mentioned that Marty's had been sold. I was given the wrong information, sorry. It is still open, but for sale. They will be doing a Mexican and a German night this winter.



# Aquatic Invasive Species – what we learned in the 2019 summer season

## ***“Treat / No Treat” Eurasian Water Milfoil study***

**You may recall that in August of 2018, TLA received permission from the Wisconsin Department of Natural Resources (WDNR) to go forward with a three-year study of the effects of two new state approved contact herbicides (ProCellaCOR and AquaStryke) in the control of Eurasian water milfoil (EWM). Also included in the study was an examination of the ongoing results of no treatment whatsoever of Eurasian water milfoil.** These three controlled studies were to take place in three segregated areas within Tomahawk Lake. The studies included the following methodology:

- A pretreatment point intercept plant survey of each of the study areas to determine what aquatic plant species were present, and in what density they were present.
- Treatment to be made in late May and/or early June 2019.
- A posttreatment point intercept plant survey of each of the study areas eight weeks following the date of treatment at the exact sites which surveyed in the pretreatment survey.
- A year-end point intercept plant survey for each of the study areas, taken in September at the exact sites previously surveyed.
- Additional annual point intercept plant surveys for each of the study areas collected in July this year and repeated during the second and the third years post-treatment.

*The goal of these studies is to understand the effects of these treatments on the plant community before treatment and following treatment in the short-term, as well as the effects of these treatments in the long-term.*

**Initial observations of the treated areas** within the initial year of the three-year study indicate that while the herbicide treatments had an

initial stifling effect on EWM plants eight weeks following the treatment, EWM infestations in the treated areas quickly began to rebound and were actively growing in a somewhat reduced state eight weeks after treatment. This result was noted in both of the herbicide treatment areas. Additionally, these areas showed continuous aggressive growth of EWM in the end of year September surveys. The effect of the two chemical herbicides on the native plant community appeared to be negligible, as hoped for, at both eight weeks following treatment and in the year end September surveys.

These results seem to contradict the results experienced in nearby area lakes with these two herbicides. The environmental conditions at the time of application were ideal, with clear skies, warm temperatures, no wind and no precipitation. These conditions were experienced the day prior to and the day of application.

**Reports from nearby area lakes** which utilized these two herbicides seem to indicate great success in the removal of large areas of EWM within those Lakes. This appears to be true and Lakes Minocqua and Kawaguesaga, where the use of ProcellaCOR seems to have been virtually 100% effective in the removal of EWM in the treated areas.

**So, the takeaway for the short-term effects of both herbicide treatments is that neither had the results that we were hoping for.** It's also fair to say that we really do not have any understanding for the ineffectiveness of these products to control EWM.

## **The Two Boat Hydraulic Conveyor System Program – a Good News – Bad News – Good News Story**

**Good News** In early May 2019, the Stengl family who reside on Tomahawk Lake, and who own Stengl Marine in Minocqua, donated a 24 foot/40 hp pontoon boat to TLA to be used to build a second Hydraulic Conveyor System (HCS) for use in removing EWM from Tomahawk Lake. Over the course of May, the boat was converted to a highly efficient suction harvester and was placed into service in early June. The addition of this second HCS held the potential of nearly doubling our HCS annual output. Two 2-person teams were hired to operate our two HCS boats, and our 2019 season began with the training of these divers, as all but one of them were new to our system.

**Bad News** However, over the course of the 2019 harvesting season a number of things happened that had negative effects on our HCS harvesting efforts. Virtually all of these problems occurred on our original Hydraulic Conveyor. Considerable downtime on our original HCS took place as a result of mechanical failures in



HYDRAULIC CONVEYOR SYSTEM  
AT WORK

the motorized systems of this boat. Engine failures occurred on the main outboard motor followed by high-speed water pump failures and the failure

*(Continued on page 4)*

## ***"Treat / No Treat" Eurasian Water Milfoil study***

*(Continued from previous page)*

of the engine powering our hookah air supply system. These failures no doubt occurred due to motor fatigue from heavy daily use over years of service (the Hookah system motor was the original motor from 2008) Even Honda motors eventually die. All told these failures contributed to roughly 3 weeks in which our primary HCS work barge was out of commission. Additionally, one of our divers sustained a minor injury (broken finger) that limited his ability to dive for the month of August.

***Not All Was Lost!*** Even with all of the problems that we experienced in 2019, we still removed **36,457 pounds** of drained Eurasian Water Milfoil from Tomahawk Lake! That's the third highest total in our HCS history.

***Finally, Good News*** As we look forward to the 2020 harvesting season, we do so with the knowledge that all of our HCS systems have been updated with new motors, and we will begin next season with four healthy and eager divers.

### **Mechanically Harvesting Eurasian Water Milfoil (EWM) With A Mower**

In December of 2018, the TLA Board of Directors approved an initiative to test the efficacy of mechanical harvesting (mowing) of Eurasian Water Milfoil in areas where plant density was heavy enough to impede navigation. *Four areas within Tomahawk Lake which historically have become canopied with EWM in mid-summer were identified and mapped.* The mowing tests were to take place in mid-to-late July and again in late August if needed. The largest of these areas was a 16-acre polygon within the Thoroughfare Bay and the other three areas were much smaller polygons from different areas of the lake.

**The first mowing test took place the last week in July**, over a four-day period. During the four-day

period, the large polygon in Thoroughfare Bay and one additional small polygon were harvested. The test was hampered by mechanical breakdowns of the harvester, and inefficiencies in offloading the harvested plant material. In addition, the mowing contractor did not have the navigational equipment which would have allowed him to better navigate within the test polygons

After looking at the results of the initial test period it was decided to table the second harvesting period until the summer of 2020 and look for a more efficient mechanical harvesting contractor to perform the tests.

**As we look to the future**, mechanical harvesting (mowing) may offer a viable alternative for the removal of some areas of EWM within the lake. We still however need to test its ability to remove EWM efficiently in targeted areas. We hope to be able to accomplish this in 2020.

### **Purple Loosestrife Harvesting**

It seems as though we approach purple loosestrife harvesting every summer with the best of intentions, but for one



**PURPLE LOOSESTRIFE**

reason or another we don't seem to follow through with our plans. Purple loosestrife harvesting takes place in early to

mid-August, which always seems to be a time where other TLA initiatives require our attention.

### ***The truth is that we as an organization need a Purple Loosestrife team leader***

who will make the control of Purple Loosestrife in the Tomahawk Lake watershed a priority. That person will need to manage 3 or 4 volunteers in a couple of boats over the course of a few weeks who will go out and harvest Purple Loosestrife plants. I would not expect

every purple loosestrife plant to be harvested as we have several areas which have a high density of purple loosestrife plants. There are however a number of sites which we have mapped that are 1 to 4 or five plants in density which can be removed either by digging them out or simply clipping their stems to remove the plants foliage including the flowers. This activity removes the casting of seeds which the purple loosestrife plant uses to reproduce.

*The Oneida County AIS coordinator is always open to helping in this effort by supplying the labor of a couple of interns to help in the efforts.* So, we simply need a leader to take responsibility for it. If you are looking for a way to contribute to the health of our lake without a huge commitment of time, then this is for you. Please contact me if you have interest in this position.

If you have any questions or comments about our efforts in 2019 to control aquatic invasive species in our Lake, please don't hesitate to contact me by email to get the discussion going

*Ned Greedy*  
edgreedy@gmail.com

### ***Update your contact information***

**Contact information changed?** Email Cindy Ross at [crosscpa@yahoo.com](mailto:crosscpa@yahoo.com) to update any information. We need to keep you up to date on happenings around Tomahawk Lake.  
**Thanks!**

# Tomahawk Lake Association EVENTS NEWS

**The 2019 TLA events were well attended and fun for all who participated.**

A big thank you to Kyle & Nikki Kennedy for hosting the Sip & Bid, Noah & Bryn Lottig for hosting the Family Fun Feed and to the Mallery and Daly families for once again hosting the Hermit Island Swim & Paddle Challenge. We are very fortunate that so many lake residents have opened their homes to us.

**There will be one more NEW event yet this year.** A Christmas Party to be held on December 28 from 4:00-7:00 p.m. at Margo & Alan Oppenheim's home, 7848 Leary Road, Minocqua. We have leftover alcohol from the summer events to use, so if everyone would just bring an appetizer, we will have it covered. Let's get together over the holidays and see those people we hardly ever see in the winter!

## 2020 EVENT DATES

### SIP & BID

**Saturday, June 20**

**We are looking for a host home.** This is an easy event to host as you only need to provide your home. Catering will once again be provided by Julie Kay's Kitchen who provides everything including the alcohol and wine. She has everything needed to set up her beautiful display of scrumptious appetizers and desserts. Your house will be left in the same condition it was found in. Call Margo Oppenheim at 715-614-3722 to offer your home for this special get-together and fundraiser.

### Hermit Island Swim & Paddle Challenge

**Saturday, July 4**

This event—usually held on the Saturday following the 4th of July—will be held *on* Saturday, July 4th this summer. We know it is a hectic time for most, but it is also the weekend that friends and relatives enjoy our Challenge when here for a long weekend or weeks vacation. We felt the next weekend we would not get as good an attendance. The format and location will be the same.

### Family Fun Feed

Family Fun Feed is a nice family potluck that includes childr Again, **we will need a host family** for this to happen. There is a little more prep needed here, but you get lots of help from the events committee. The date is still to be determined once we are apprised of the Minocstock concert on the lake. We are going to try to hold this on a different weekend so we can all enjoy both. That was supposed to happen last summer, however the Minocstock date was changed at the last minute. Call Margo Oppenheim at 715-614-3722 to offer your help of a location for the Family Fun Feed social event held during the later part of the summer.

## 2019 Hermit Island Swim & Paddle Challenge Winner Results

Hermit Swim	Teagan Paulson
Male Swim	Quinn Paulson
Female Swim	Lauren Paulson
Paddle	Jim Buchheit Ethan Buchheit



*Thank you to our  
2019 Hermit Island  
Event sponsors*



#### Hermit Island Buoy Sponsors

Beech, Tom & Carol  
Foster, Race & Lynne  
Frost, Jack & Delores  
Mallery, Tuck  
Shain, Paul & Suzy  
Swaney, Thomas & Pat

#### Hermit Island Paddle Sponsors

Arias, Gil & Kate  
Beech, Tom & Carol  
Greenleaf, Sally  
Groff, Traci & Fredrick  
Hankins, Tess Mallery & Matt  
Oppenheim, Alan & Margo  
Wanserski, David & Lorri



## Lake Facts, Purpose, and Program Overview



by Jim Kavemeier,  
Chair – Environment & Education Committee

***As Tomahawk Lake shoreland property owners, we have the opportunity to enjoy water-based activities, experience the natural scenic beauty and view abundant wildlife on a clean and clear water lake.***

### Some interesting facts about Tomahawk Lake:

- ***Tomahawk Lake and Little Tomahawk Lake are designated as Outstanding Resource Waters (ORW) by the Wisconsin Department of Natural Resources (WDNR).*** To receive the ORW designation a lake must provide outstanding recreational opportunities, support a valuable fisheries and wildlife habitat, and have good water quality. Only 1 percent of all Wisconsin lakes, rivers, and streams have received this designation.
- ***The Tomahawk Lake watershed is small in comparison to the size of the lake.*** A watershed is the land area that drains to a body of water. A small watershed results in less pollutants entering the lake. It also means that we as shoreland owners can *make a difference* in maintaining or enhancing the Tomahawk Lake water quality.
- The recent Shoreland Restoration and Stormwater Management study found that the ***Tomahawk Lake water quality, fisheries and wildlife habitat is excellent.*** It also states that residential development, with shoreland management practices that result in nutrient rich runoff, has the highest potential to threaten the long-term water quality of Tomahawk Lake. Nutrient rich runoff is that portion of precipitation on land that ultimately reaches the lake often with dissolved nitrogen and phosphorous or sediment.

### Shoreland Stewards Program

*The purpose of the Tomahawk Lake Association's Shoreland Stewards Program is to promote and encourage shoreland property owners to maintain or implement lake friendly shoreland management practices. These lake friendly shoreland management practices will preserve or enhance the health of Tomahawk Lake and Little Tomahawk Lake and their watersheds for present and future lake users to enjoy.*

### Program Overview:

*The three main components of the Shoreland Stewards Program are:*

#### 1. Rate Your Shoreland

*Located on the TLA Website – [tomahawklake.org/shoreland-stewards-program](http://tomahawklake.org/shoreland-stewards-program).*

- The Shoreland Stewards Program's "Rate Your Shoreland" Survey provides Tomahawk Lake System property owners with a method to evaluate your current shoreland management practices. It also provides information on and recognition for best shoreland management practices. Implementation of the suggested shoreland best management practices protects your property investment and helps to keep the lake healthy.

#### 2. More Shoreland Information

*Located on the TLA Website – [tomahawklake.org/more-shore](http://tomahawklake.org/more-shore).*

- More Shoreland Information provides links to websites providing;
- More information on best shoreland management practice.
- Native Plant Guides
- Financial Assistance Programs
- Shoreland Informational/Fun videos

#### 3. Technical Assistance

Experience has shown that lake property owners often feel more comfortable having professional assistance to identify and then follow through with implementing shoreland best management practices.

***The Tomahawk Lake Association offers shoreland owners two technical assistance options:***

#### • Rate Your Shoreland Survey Completion Assistance.

- As a service, Gretchen Watkins a TLA Board member with vast shoreland knowledge and experience, will meet with and assist TLA shoreland property

owners in the completion of the Rate Your Shoreland survey. As you go through the survey she will explain and answer questions about the survey terminology and/or assist in your response to shoreland land management practice questions.

• **On Site Shoreland Property Management Evaluation and Technical Assistance.**

- The Tomahawk Lake Association offers a free no obligation initial site evaluation and technical assistance to shoreland property owners who want to learn more about continuing and/or implementing shoreland property best management practices. The site evaluation is conducted by the TLA shoreland consultant Mike Meyer of Nova Ecological Services. The site evaluation includes:

- Using a high-resolution aerial photo and on-site observation, identify and discuss the existing use of your property, review existing drainage patterns, and shoreland vegetative conditions.

- Share with the property owner the locations of critical fish and wildlife habitat adjacent and in near proximity to their property.

- Discuss how your use and shoreland management practices can impact the overall health of the lake and impact the value of their property.

- With permission, take photos of existing site conditions.

- As an end product the shoreland property owner is provided a summary of their conversation with Mike and a high-resolution aerial photo showing best shoreland management practices which could be implemented to maintain or improve your shoreland lake management practices.

*Sign up for the free Rate Your Shoreland Survey Completion Assistance or On Site Shoreland Property Management Evaluation and Technical Assistance by emailing Jim Kavemeier at [jimkavemeier@mac.com](mailto:jimkavemeier@mac.com) or call/text 262-542-0212.*

## Postcards from Tomahawk Lake

by Louis J. Molepske, Jr.  
TLA Board Member

The last time we spoke, the rumble of a Sunflower Craft brought us back to the Sunflower Cottage Resort on our way to Little Tomahawk Lake. Today, our adventure takes us to a place my father first showed me as a child when I learned Tomahawk Lake had a “lock.” If you aren’t sure what I am talking about take a cruise from the tip of the Potawattomie Colony (Musky Bay) and travel directly southwest. As you approach the distant southwest shoreline, you should see a cement spillway with water flowing through the middle into Tomahawk Lake. If you look over the spillway, you’ll see a straight canal traveling over a mile to Katherine Lake through a lush forest. Congratulations! You have just found the Hazelhurst Canal connecting Tomahawk Lake to Katherine Lake.

The Hazelhurst canal was a vision of Cyrus C. Yawkey, George W. Lee and Andrew Jackson. These original settlers of the Hazelhurst area convinced the legislature on April 3, 1891, to pass Act 357 which granted them, their heirs and assigns to “construct, maintain and operate a canal from Lake Katherine to Tomahawk “lakes”...to construct, maintain and operate booms and other works appurtenant thereto, for log driving purposes, and to drive, boom and handle logs thereon.” Laws of Wisconsin Chapter. 137, 1891. Unfortunately, this log driving project was not successful when it was realized that Tomahawk Lake was two feet lower than the canal and Katherine Lake. Logs did not easily float from Tomahawk to Katherine Lake and ultimately to the Yawkey-Lee Lumber Co. in Hazelhurst.

Today, the “lock” is not operational, but I remember my dad telling me to hold onto the gunnel of our fishing boat as he winched us over the spillway via a hand-operated boat lift that is no longer there. I always liked being in the boat during trips to the canal, because the boat lift system acted like a roller coaster on either side of the spillway when the hoist wheel spun free and the boat bunker raced down the tracks into the water below. The days of winching a boat over the spillway ended several years ago due to low water levels in Katherine Lake, disrepair of the boat hoist and the concern of moving AIS from Tomahawk into Katherine. Yet, memories can still be created here by taking a kayak or canoe through the canal to Katherine Lake. Make sure to look for the field stone walled bridge that remains today as it did in the original postcard from the 1940s seen here in the newsletter. Until next time, keep exploring our beautiful lake.



# BLUE-GREEN ALGAE BLOOMS

by Jim Kreitlow

Nova Ecological Services

**The harmful effects of blue-green algae have made the national news recently.** This has generated interest from the Tomahawk Lake Association. I have been asked to write an article about blue-green algae and if they pose a future threat to water quality in Tomahawk Lake.

**Algae serve as the base of the food chain in all lakes.** They are plant like organisms that undergo photosynthesis to produce oxygen and are food for the next level of the food chain (zooplankton). Blue-green algae are one of nine groups of algae represented in Wisconsin lakes. They are considered photosynthetic bacteria because they lack a defined nucleus and organelles found in other groups of algae. They are often called cyanobacteria.

**Blue-green algae are present in all lakes and in most cases are planktonic (free floating).** In many lakes they do not reach bloom densities. Excess levels of nutrients (nitrogen and phosphorus) is what fuels blue-green algae blooms. A study by Downing et.al. (2001) on 99 lakes showed that the frequency of blue-green blooms in lakes was less than 10 percent if the total in-lake phosphorus concentrations were below 30 parts per billion (ppb) and increased to 40 percent if the concentrations were between 30 and 70 ppb. The good news is that Tomahawk Lake phosphorus concentration range between 12-15 ppb.

**Blue-green algae blooms typically occur in the summer months (mid-June through late September) when water temperatures range between 66-86 degrees Fahrenheit.** Surface scums are formed that are blue green in color, but can also be blue, green, reddish-purple or brown. They can really multiply under calm conditions because they have gas filled vesicles that regulate buoyancy so they can move up and down in the water column to take advantage



of the best wavelength of light for photosynthesis. They can store phosphorus in their cells and fix nitrogen directly from the atmosphere if it is in short supply. All these factors can lead to a bloom in a short period of time.

**Not only are blue-green algae blooms unsightly, certain types can produce toxins.** Blue-green algal toxins are naturally produced chemical compounds that sometimes are produced inside the cells of certain kinds of blue-green algae. The most commonly detected genera include Anabaena, Aphanizomenon, Microcystis and Planktothrix. These types are present in Wisconsin lakes. Scientists are not sure what triggers toxin production. It could be a certain strain of blue-green algae or other environmental factors (crowding). There is no testing for the toxins except for looking at a sample under the microscope to see if toxin producers are present. The State lab of Hygiene can analyze samples, but it could be weeks before results are available.

**The route of exposure to humans and animals include skin contact (dermal), inhalation and consumption of water.** Some reported symptoms of skin contact and inhalation include rashes, respiratory illness, headaches and gastrointestinal upset. Direct consumption of water (particularly pets) can lead to liver failure or central nervous system affects (seizures, paralysis, respiratory failure, death).

***There are measures that people can take to protect themselves and their pets. These include:***

- Do not swim in water with surface scums that looks like "pea soup."
- Do not boat, water-ski over such water (reduces inhalation exposure).
- Do not let children swim in scum layers.
- Do not let pets swim or drink water experiencing blue-green algae blooms.
- Always take a shower after contact with surface water.
- A good rule of thumb is if you wade into the water knee deep and can't see your toes, stay out.

Lake Tomahawk is considered a headwater lake with a small watershed (land area draining to the lake). For the most part ***future nutrient loading comes from properties directly adjacent to the lake.*** It is important to maintain the current in-lake phosphorus concentrations. Rising phosphorus levels could lead to increased frequency of blue-green algae blooms.

***There are measures landowners can take to control phosphorus loading. They include:***

- Maintain or restore native vegetation along shorelines as buffer areas.
- Minimize activities that result in erosion.
- Reduce runoff directly to lake (rain gardens, infiltration trenches).
- Reduce the amount of fertilizers used on lawns.
- Fix leaking or failing septic systems.
- Support local ordinances that require silt curtains for residential or commercial construction sites.

**For further information:**

[www.dnr.wi.gov/lakes/bluegreenalgae](http://www.dnr.wi.gov/lakes/bluegreenalgae)  
[www.dhs.wisconsin.gov/water/bg-algae/index.htm](http://www.dhs.wisconsin.gov/water/bg-algae/index.htm)

Citation: Downing J.A., Watson S.B., McCauley E., 2001 Predicting Cyanobacteria Dominance in Lakes. Can. J. Fish Aquatic Science 58, 1905-1908



## Please Support These TLA Business Partners Who Have “Stepped Up” to make Our HCS Program Successful!

# Stengl Marine

MINOCQUA, WISCONSIN

The Stengl Family has “Stepped Up” by supporting our Hydraulic Conveyor System program through it’s donation of a 24 foot pontoon boat and motor which became our second HCS suction harvester

The Dock Shop became aware of our need for a dock for our two Hydraulic Conveyors, and donated a 32 foot all aluminum ShoreMaster dock which will support our HCS program for years to come.



It seems like Gary Clawson has done half of the driveways in and around Tomahawk Lake! When he heard that TLA needed two huge downed Oak Trees removed from it’s future dock site for the HCS program, he made short work of it. When we got the bill for the work, he had written “In-kind Contribution, Balance Due -0-” across the bottom of the Invoice!

Plowman’s Marine has been with TLA’s HCS program since the beginning (2008). They have provided boats, motors, electronics and more at their cost or less. They provide winter storage for our HCS at no cost, and always make hefty donations for our “silent auction” at our “Sip & Bid” fund raising event.



## 2019-2020 TLA Board Members

### Noah Lottig

*President*

*President nrlottig@gmail.com*

### Margo Oppenheim

*Vice President &*

*Event Committee Chair*

*mmoppy@deerrunstone.com*

### Scott Harmsen

*Treasurer*

*scott.harmsen@us.gt.com*

### Scott A. Meitus

*Membership*

*smeitus@aol.com*

### Jake Harmsen

*Membership*

*jake.harmsen@gmail.com*

### Adam Redman

*Membership*

*Adam@RedmanRealtyGroup.com*

### Josh Rikkers

*Membership*

*jrikkers@cresa.com*

### Lorri Wanserski

*Membership*

*lorkay1220@gmail.com*

### Jim Kavemeier

*Education & Environment Chair*

*jimkavemeier@mac.com*

### Gretchen Watkins

*Education & Environment*

*gwsurfacewater@gmail.com*

### Louis Molepske, Jr.

*Legislative*

*molepskelaw@gmail.com*

### Lindsey Oppenheim

*Events Committee*

*lindsey.oppenheim@gmail.com*

### Meg Daly

*Events Committee*

*meg@coachmegdaly.com*

### Ned Greedy

*Executive Director*

*edgreedy@gmail.com*

## NEW Board Members

### Nancy Olson

*Secretary*

*witaco@aol.com*



Nancy and her husband Tom joined the Tomahawk Lake community in 2013. They

both visited the area with their families as kids and as adults with their boys, camping at Indian Shores and other places in the area. They love the fishing, fresh air, tall pines and wildlife of the Northwoods. Their house is on the thoroughfare. Yes, one of those with the reeeeeee long boardwalks. From the two different types of orchids that grow there and the carnivorous sundew found on a log to the occasional turtle in the water, there is always something to look at on the walk to the boat. When not at the lake, Nancy is an engineer with Symbiont, a consulting firm in Milwaukee that works with companies and municipalities to treat their wastewater. Nancy and Tom, have three boys, two daughters-in-law and one grandchild, all of whom enjoy the lake. Nancy's favorite pastime is reading on the dock while watching the boats go by.

### Kate Arias

*Membership*

*karias531@yahoo.com*



Kate has spent each of her summers in the Northwoods, first vacationing with her family on High

Lake in Boulder Junction, then at Red Pine Camp on Clear Lake, and as a grown-up, at her family's home on Tomahawk Lake. She used to think there was nothing better than a summer Up North, until she started to visit during the cooler months and now thinks every season here is practically perfect. Thankfully, her husband Gil came to love Minocqua and Tomahawk Lake just as much as Kate does. When not at their Chicago home, she and Gil and their basset hound, Henry, can be found on the water or on the hiking trails. Kate is looking forward to meeting more Tomahawk Lake neighbors and joining together to keep our lake clean, clear, and beautiful for generations to come.

### Bruce Forsberg

*Membership*

*bforsberg60@gmail.com*



I retired to Tomahawk Lake with my wife, Sheila, in 2017 after a 30-year career in finance

with Motorola Solutions, Inc. in the Chicago area. After several years of vacationing in northern Wisconsin, we found the perfect lot on Tomahawk Lake to build our retirement dream home. Our daughter, Kelsey, lives in Chicago and also works for Motorola. We enjoy golfing, boating and snowmobiling, so we chose the Northwoods as our year round retirement destination.

# What Do I Get for My *Fair Share*?

*Without your **Fair Share** contribution, we would not be able to work to preserve and protect our lake and maintain its status as one of Wisconsin's few Outstanding Water Resources.* Below you will find examples of the many different activities that your **Fair Share** donations support each year.

- Information about shoreland restoration and assistance with obtaining funds for shoreland projects
- Mapping of critical habitat that needs to be protected and preserved
- Monitoring health of the Lake
- Aquatic Invasive Species Management and Control
  - Two hydraulic Conveyer boats with two divers each for Eurasian Water Milfoil control
  - Purple Loosestrife management to minimize spread of invasive plant
  - Clean Boats Clean Waters Attendants to help ensure that new invasive species don't make it into our lake
- Social and Community Events for comradery and fellowship to enhance membership and fundraiser support
  - Hermit Island Swim & Paddle Challenge
  - Sip & Bid Silent Auction Fundraiser (*fully supported by ticket fee*)
  - Annual Meeting and Family Fun Feed Picnic
- Membership Directory
- Volunteer Working Board of Directors w/ Executive Director to oversee operations

**See the enclosed Membership Form for details on *Fair Share* donations! Thanks!**



## *Thank you, 2019 Sip & Bid Silent Auction Donators*

*The Tomahawk Lake Association would like to thank the following businesses and people for their generous donations for our Silent Auction that were auctioned off at our Sip & Bid Event this past summer. Without these supportive people we would not be able to fundraise in this manner.*

Bitters + Bull  
John & Judith Bloom  
The Boathouse  
Culver's  
The Club House  
Deer Run Stone  
Jeff & Birgit Dierberg  
ETCO Electrical Supply  
Golden Karat  
Ned & Pam Greedy  
The Hazelhurst Pub  
Jeffery Hill  
J.J.'s Acres

Kyle & Nikki Kennedy  
Kilwins Chocolates  
Kurt's Island Sports  
Kwik Trip  
Lake Tomahawk Meat Market  
Lakeside Grill  
Laura Ordille  
Minocqua Hardware  
The Minocqua Yacht Club  
Murtaugh's Pub And Eatery  
Northern Waters Distillery  
Tom & Nancy Olson  
Alan & Margo Oppenheim  
Lindsey Oppenheim  
Outback 51  
Plowman's Marine  
Shamrock Pub n' Eatery  
James Sperling  
T.J.'s Butcherblock  
Timber Ridge Golf Club  
Trig's Grocery Store

### **Board of Directors Meetings**

Anyone and everyone are **encouraged** and **welcome** to attend any Board Meeting they wish all year long.

We meet at 8:30 a.m. on the following dates:

December 14, 2019

February 15, 2020

April 18, 2020

June 6, 2020

July 11, 2020

August 8, 2020

September 12, 2020

December 5, 2020

*Please contact Margo Oppenheim the week before for location, 715-614-3722.*





W I S C O N S I N

Hazelhurst • Lake Tomahawk • Minocqua • Woodruff

Tomahawk Lake Association  
P.O. Box 535, Minocqua, WI 54548

## Attention TLA members New Addition to our Website

**Wouldn't it be nice to have a membership directory to be able to contact each other?** It would be great to set-up a kayak outing, bike the Clear Lake trail, meet at Lakeside for a fish fry, watch a Packer game (ok or maybe the Bears) at the Shamrock, etc. What we won't do is share this info with nonmembers, business lists, our kids selling vacuum cleaners (it happens!), our sister-in-law selling Avon—you get the picture. No soliciting.

You can sign up to participate if you're interested or opt out if that's your preference. All you need to do is **log on to [tomahawklake.org](http://tomahawklake.org) and look for the Directory icon.** You will need to be a TLA member and

they will be able to verify this through your email address. You will be able to sign up with any info you wish to share, i.e. phone number, email address, physical address, likes. Make a copy of the list for your records as an easy reference when you would like to get together for something.

Several people this summer felt this would be a good idea and the TLA Board has approved going forward with this. Check it out, it's easy to participate and remember this is a very private directory.

Happy Fall everyone –  
enjoy the lake.

*Birgit Dierberg, TLA member*

Tomahawk Lake Proud text on Fleece back



## TLA Fleeces & Hats

**Show your Tomahawk Lake Proud spirit** by purchasing a **new TLA fleece and hat**. Now that the weather is cooler that fleece looks better and better all the time. Still time to get one for a birthday or Christmas gift. Call or text Margo Oppenheim at **715-614-3722** to set up a time to come by and purchase one.

**Support TLA with this simple fundraiser and let your neighbors know how important TLA is to you and your family.**