

Bear Lake News

Newsletter from the Bear Lake—Lake Board

Produced by PLM Lake & Land Management Corp.

Improved Lake Management & Treatments

- **GVSU AWRI:** GVSU's Annis Water Resource Institute (AWRI) is now partnering with the BLLB for monitoring/testing, consulting, and preparing an annual report with threats and recommendations.
- **PLM Lake & Land Management:** The BLLB is now partnered with PLM to perform more than just lake treatments, including Information and Education assistance like this newsletter, a lake management plan, aquatic surveys, and more.
- **PLM-Lake Treatment:** PLM will continue as our lake treatment applicator, focusing on invasive species, algae, and other treatment needs.
- **Treatment Protocol:** The process to receive reported issues and initiate treatment has been streamlined for much faster service.



Get Added to the BLLB Contact List

Go out to www.bllb.org and click on the link to fill out a form to be added to the contact list.

Email one of the BLLB board members with your name, address, email(s), and text number(s) (if you want text updates for treatments only)



BLLA Important Updates

Lake Aeration Cancelled

The lake aeration project has been cancelled, resulting in the funds allocated to that project being available for lake treatment and other lake improvement projects.

Assessments Paused

The initial 5-year assessment of \$2,500 (\$500 /yr) per parcel has concluded.

Due to the large available balance, there will be a pause on assessments until the fund balance reaches a level where the BLLB feels additional funds are required.

The existing funds will be used toward lake improvement expenses outlined in the initial assessment, including lake treatment and other listed projects.

There will be assessments at some point in the future, and the exact amount and term will be determined through a public hearing process when that point is reached.

Fenner's Ditch Area

Fenner's Ditch is an area of focus this summer for the BLLB, and we are working with PLM and GVSU to establish a customized treatment plan specific to the issues in this area.

Improved Resident Communications

- **BLLB.org:** The BLLB now has it's own website! This site has board information like meeting and treatment dates, board packets, meeting minutes, and in the future will be enhanced to include lake education.
- **BLLB Facebook Group:** Used in conjunction with website for events and notifications.
- **Email Updates:** Residents to sign up to
- **Treatment Notification:** Residents of North Muskegon will be notified via the Nixle system used by NM for urgent notifications. All residents can opt-in to email or text notifications for treatment.
- **Treatment Maps:** Maps indicating what areas of the lake are/were treated.

Lake Issue Reporting

- If you notice any issues with the condition of our Lakefront, please contact one of the following BLLB members: Darrell Van Fossan, Paul Pek, or Craig Howell.
- The preferred method is an email with a description of your issue, a photo of it, as well as your address.
- The BLLB has a new treatment protocol which will allow the authorization of treatment quickly after reported issues start coming in, avoiding the long delays of the past.

Impacts of Wake Boats and Best Practices:

The popularity of wake sports has been on the rise over the past several years and with it the number of "wake boats" operating on lakes. Whether wake boarding or wake surfing, these boats are designed to produce large waves. Hull shape, ballast tanks, adjustable plates, and horse power are some of the technologies used. These waves are often equal to or greater than most major storm events which can increase shoreline erosion. Unlike old school/conventional "ski" boats which typically push thrust parallel to the waters surface, wake boats tend to push thrust at a downward angle and therefore have a greater potential to disrupt bottom sediments in addition to shoreline eroding shoreline.



So what are the impacts of wake boats on lakes? The honest answer is that there is a shortage of research on the subject but new studies currently being done suggest that larger waves may increase the potential for shoreline erosion and deeper thrust may disrupt/resuspend sediments at the lake bottom.

Here are a few guidelines that can reduce the potential for adverse effects on Bear Lake.

- **Waves decrease in size the longer they travel. Therefore, it is recommended to operate wake boats at least 500 ft from shore whenever possible.**
- **Studies conducted on different wake boat models suggest that thrust (depending on the trim angle) will typically reach a depth of ~12 feet. Therefore, it is recommended that wake boats be operated in depths greater than 12 ft whenever possible.**

As time goes on there is certain to be more research done in this area and/or regulation. For the time being, be aware of potential effects on the lake and adapt boating practices to minimize impacts.

Lake Board Members

Darrell Van Fossan: Chairperson, Riparian Owner Representative, darrell.vanfossan.bllb@gmail.com

Paul Pek: Vice Chair, Laketon Township Representative, paul.pek.bllb@gmail.com

Craig Howell: Treasurer, North Muskegon Representative, craig.howell.bllb@gmail.com

Brenda Moore: Secretary, Water Resources Commissioner, moorebr@co.muskegon.mi.us

Doug Brown: Muskegon County Commissioner browndo@muskegoncounty.net

Board Financials

Current fund balance of \$361,410.92

Estimated 2022 Budget

Lake Management (PLM): \$5,000.00

Lake Monitoring and Consulting (GVSU): \$20,000.00

Lake Treatment (PLM): \$35,100.00

Attorney : \$7,800.00

Other Items: \$20,000.00

10% Contingency: \$8,790.00

Total 2022 estimated expenses: \$96,690.00

A Lake Resident's KEY TO SURVIVAL

PLM Lake & Land Management Corp. appreciates the opportunity to be a part of your lake management program. Your lake is a diverse ecosystem which requires the use of multiple management tools. In addition to the services we provide, we still need your help! You can directly improve your lake frontage by taking a few small steps that can have widespread impacts on the entire lake. Everyone's activities play a role in the health of Bear Lake. It is not just the land touching the lake that impacts the health of the lake, but all the land in the area that makes up the watershed. Every property owner's actions on and off the lake plays a role in the condition of the lake. Do your part and help get your neighbors involved in caring for the lake. The following suggestions are just a few actions that can be taken to help create a healthy lake and beach frontage.

- Do not feed the ducks and geese. Remove dog, geese and duck droppings from lawns, docks, etc. Excess feces will increase nutrients within the lake. Please, do not sweep it into the lake!
- Create a natural buffer close to the water's edge and remove grass/turf touching the water's edge. A natural setting will filter excess nutrients from entering the water and help decrease erosion. The green-belt should consist of native plant varieties of shrubs, flowers or trees that do not shed their foliage into the water. Natural buffers are also an excellent way to deter geese from making a stop on your beach front. Geese do not like areas where they cannot see the predators coming towards them.
- If you do fertilize make sure you are using phosphorus free fertilizer. Talk with your neighbors and develop a phosphorus free program which uses no phosphates and slow release nitrogen. One pound of phosphorus may produce over 775 pounds of algae- "The slimy green stuff". If you must fertilize, apply nitrogen fertilizer when the grass is actively growing to minimize loss of nutrients to nearby waters. Begin fertilizing in the spring when temperatures are warm and discontinue before the grass ceases to grow in the fall. Avoid application of fertilizer prior to rainy days.
- Perforate lawn periodically and seed and mulch exposed soil (to prevent erosion).
- Remove aquatic plants, leaves/branches and other debris that washes up along the lakeshore so less decomposition occurs in or near the lake.
- Always use silt fences when building a new home or doing any yard-work that would cause erosion.
- Keep all burn piles and debris piles away from lake. Do not burn near the water. The ash is concentrated nutrients!
- Encourage the use of stone, brick and similar porous materials when building a landscape to minimize urban water collection.
- The BLLB website has added the Bear Lake Preservation "Guidebook" for residents to reference so they can become better stewards of the Lake.



Starry Stonewort— Exotic Plant WATCHLIST

Starry stonewort has been quickly spreading throughout Michigan. Starry stonewort (*Nitellopsis obtusa*) looks like a rooted plant but it is actually an algae. The plant is native to Europe and Asia and was first discovered in the St. Lawrence River in 1978. In 1983, it was found in the Detroit River and has since infested many Michigan lakes. Starry stonewort resembles the native aquatic plant Chara. Unlike Chara, which is generally considered to be a beneficial plant, starry stonewort has a tendency to inhabit deeper portions of the lake and can form dense blankets several feet thick. These mats can severely impede navigation and limit growth of more beneficial plants. Starry stonewort anchors to the sediments through rhizoids (primitive root structures) which can also absorb nutrients. Like Chara, starry stonewort also absorbs nutrients from the water through its cell walls. Starry stonewort has tiny, star-shaped, tan colored reproductive structures called bulbils that are firm to the touch when compared to its soft branches. These reproductive bulbils have been shown to stay viable for several years in lake sediments. It is unclear what effects starry stonewort may have on a lake's fishery. However, the encroachment of starry stonewort into fish spawning beds may be a cause for concern. Both algacides and mechanical harvesting appear to be somewhat effective in controlling starry stonewort. However, given its propensity to produce massive amounts of growth, efforts to keep this invasive algae at bay will be difficult and potentially expensive. We are constantly on the lookout for new infestations of SSW for quick action. Please keep your eyes on the look out! See the www.BLLB.org website for more educational information on Invasive Plants in Bear Lake.



