



Wake Boats on Lake Sherwood

Martha Klemmer
January 29, 2025

Motion

Grandfather in all present wake boats,
but not allow any new wake boats.

If a resident moves/sells his/her property, the
boat must be removed from LSA registration
and cannot remain in Lake Sherwood.

The motion and this discussion has ZERO interest in controlling other forms
of water sports.

Incentive for Motion: Numerous Issues Reported by LSA Residents

Waterfront property **Shorelines Erosion** - a big expense (up to \$100,000 for new sea wall; tens of thousands for fortification/modification of existing seawalls)

Kids no longer comfortable swimming at shoreline with big wakes.

Resident gave up **jet ski** – not comfortable using anymore & other boating activities are uncomfortable now with the excessive wave action.

Relaxing in a boat with kids disturbed by large wakes bouncing boat and wave water into boat.

Lack of fishing on main lake and overall reduced fish population.

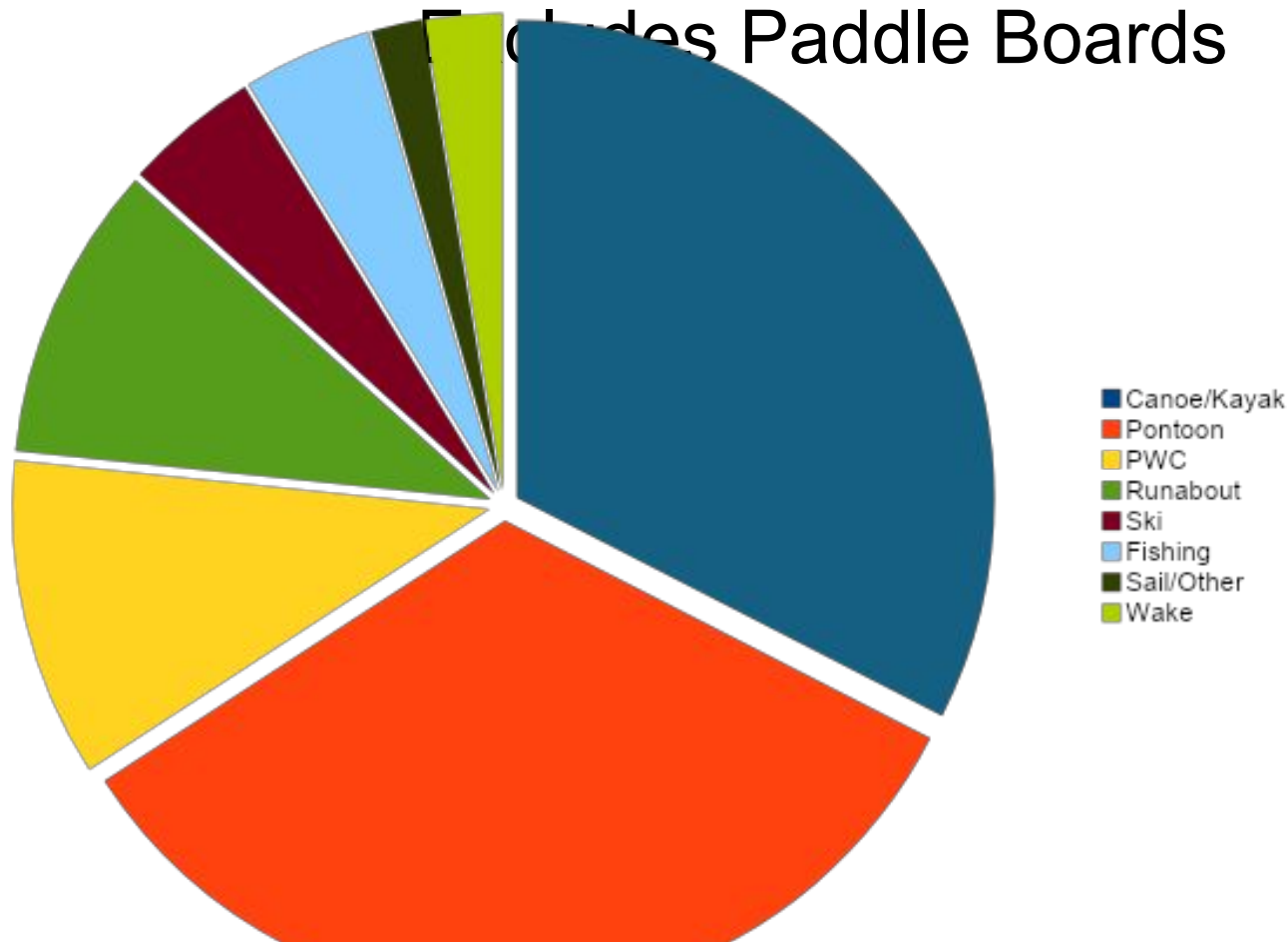
Dock damage – ears broken off new heavy duty metal boat cleats at Skier's Island; boards/cleat broken at U-Turn Island.

Boat damage – moored **boat** at Skier's Island thrown up on dock from very high wake... and other similar incidents.

Safety hazard from wake/wave boats operating in the wrong direction violation but okayed by our LSA safety director - going against safety rules & MI laws. [A guide to Michigan's boating laws: What you need to know](#)

Can't really use the sandbar like we used to. We miss it. Excessive noise.

2020 LSA Boat Type Census



Wake boats affect the enjoyment of many other lake users.

- 27 Wake Boats existed on Lake Sherwood in the 2020 census (2.6%)
- Pontoon, runabout, kayaks, PWC, fishing, canoes etc, represent over 65% of the vessels on Lake Sherwood

Other boaters express dissatisfaction with Wake Boats disturbing their enjoyment of the lake.

Dr Jude Report Follow-up Status/Actions Associated with Recommendations (Cont.): 11. **Ban Wake Boats** • The Board, on 9/25/24 voted they have no opinion regarding banning any type of watercraft on Lake Sherwood

LSA Water Quality Update_09Oct2024_Final v3.pptx

LSA Board removed all questions about Wake Boats on 2025 Survey.



Numerous Comments/Concerns from 2023 & 2024 Membership Surveys - NEXT SLIDE)

2024 LSA Membership Impromptu Comments

- 1) I hope every board member read the wake boat report. Here is the proof that wake boats are detrimental to our lake, especially a small shallow lake like Sherwood. It is time to do something about this! They are damaging the islands, lake bottom, shorelines. We all have to pay for these repairs caused by a few. There should be a “damage correction” surcharge for wake boats. This should be a fund to fix damages. As board members – be bold and do the right thing regarding wake boats! Think about it – you charge non lake front owners to rent docks and they have to pay to maintain them. Wake boats can pay a damage fund.
- 2) Ban wake boats!
- 3) The wave board or deep waves being made keep distance from sea walls due to corrosion :(
- 4) The wake boats are destroying the islands.
- 5) Our shoreline is deteriorating from large wakes! Our lake is too narrow for wake boats. Those wake-boarding don't live on the main lake, so it doesn't affect them :(
- 6) Lake water quality – most important asset in Lk Sherwood.
- 7) Water quality has gotten much worse in the past few years. Overkill of weeds & then the stirring up of the dead weeds by wave boats are the most likely causing the severe algae blooms. Wave boat action goes 30” deep; for this.
- 8) Water quality is #1 issue. The report that came out shows that our lake is too shallow extreme negative impact of wake boats and that Lake Sherwood is just too small & shallow. Somehow, something needs to be done to maintain the lake & our home values. (I'm not sure what the answer is except ban them.)
- 9) Need to address wake boats going in wrong direction.
- 10) Just focus on water quality – future of our home investment! 100% in favor of increasing dues to improve H2O quality of lake.
- 11) Water quality issue is big.
- 12) Number 1 - Water quality appears to be the worse its ever been in my 30 years. Plants appear to have been eradicated causing larger than normal algae bloom; no plants = more food for algae. Number 2 – Surf boats – From all I've read... our lake is too small. Too much damage to shorelines, bottom of lake constantly being stirred up & unpleasant boat rides due to constant wave action bouncing off shorelines. Solution – no more surf boats allowed, grandfather current boats.
- 13) Somehow we need more adherence to boating and direction rules.
- 14) WAKE BOATS – We are destroying our lake! I have been a lakefront resident since 1988. I have seen the decline of the water clarity diminish greatly and increase of weed presence floating on the surface. These “wake boats” are uprooting the fish's habitat. I am having to spend days raking out the seaweed and dead fish from in front of my lake-front home. We continue to replenish the lake each year with fish, yet we are destroying their environment with these pleasure “wake boats” (disturbing the lake bottom). We have been discussing dredging out the canals but soon will be discussing dredging out the main lake due to our negligence of allowing “a few” affect our lake.
- 15) Let some weeds grow to improve water quality.
- 16) Love the community. Only wish water was clear.
- 17) Water quality.

2023 LSA Membership Impromptu Comments

Stimulated by Question Relating to Interest in Attending a Water Quality Information Meeting

- 1) Would like to reduce the green fluorescent algae that builds up on our shore
- 2) E-mails do a great job explaining. We are newer to this lake. Prefer more treatments to reduce algae, seaweed, and better water clarity. We do rake our shoreline often.
- 3) Too much algae type growth along the shorelines of some properties.
- 4) We seem to be having more algae outbreaks in the last couple of years.
- 5) Weed control is nicely done. Algae continues to be a challenge at times.
- 6) Our water is gross & unswimmable by July 1.
- 7) It is really bad.
- 8) Anything to reduce the dark brown tint. Could we ban fertilizer on backyards? Fertilizer runoff can cause algae blooms. Maybe some dredging, especially in the river across Commerce Road. Very mucky in there, especially deep in towards the river entrance.
- 9) We should consider any options to help w/ the algae, if we are not able to swim or fish in our lake our property values decrease.
- 10) When guests ask, "Do you actually swim here", you know things are on the decline, Brownest water ever over the last 3 years compared to the previous 27 years. Find someone to make it clear again!! Maybe coloring would help?
- 11) It is brown, more brown every year. I would love XXXXX info about this meeting.
- 12) Too many chemicals. Need some seaweed. Shouldn't have unsafe algae.
- 13) Feel like I need to know. Concerned about algae, cleanliness of lake.
- 14) The water is trash. Stop killing all the weeds. Fishing has gone downhill big time.
- 15) Main reason for association is lake quality. Needs to be maintained – first priority.
- 16) The water quality has been terrible the last 3 years.
- 17) We are concerned about the quality.

2023 LSA Membership Impromptu Comments

Stimulated by Question Relating to Interest in Attending a Water Quality Information Meeting

- 1) I have been a Lake Sherwood resident since 1999 and the water quality for the last three years has been the worst I have seen. In my opinion, this is a result of long-term run-off accumulation of organic material and chemical nutrients from the surrounding neighborhood. The most workable remedy is to both aggressively cut chemical run-off and reduce the amount of nutrients already in the lake. It appears that the algae blooms are getting worse every year. Our area had surprisingly thick vibrant green algae that took up our entire shoreline 3-4 times in 2022.
- 2) It used to be much more clear in the past.
- 3) What do we need to do to maintain/improve water quality?
- 4) We've been here 4 years & it seems to be much worse than when we were first here.
- 5) Water quality definitely deteriorated over past 7-10 years. Septic tanks? Road drain runoff? Wake boats?
- 6) Is Lake Sherwood a dying lake?
- 7) I would like to learn About this. Very concerned about the water quality. Everything else is trivial if the water quality of the lake is compromised.
- 8) I feel we have to do something immediately. Without a healthy lake (clearer water) our homes will de-value fast. The algae was awful.
- 9) Please make water quality top priority. It has declined in the past years. Increased algae and contamination are concerning.
- 10) Needs improvement.
- 11) The water is more murky the last few years.
- 12) These new wave boats have stirred up more seaweed/dead fish and washout of my soil! Stop the wave boats.
- 13) Water was bad last year.
- 14) Disturbing the lake water needs to end/stop.
- 15) I support measures to improve water quality.
- 16) Eliminate suggestions for treatment from an owner of the treatment option & spends funds on a water quality scientist.
- 17) I believe that our lake should be our #1 focus, Claude Tunisin Jr was on the committee that worked on bubblers for Duck Lake, He had a ton of information & some recommendations.

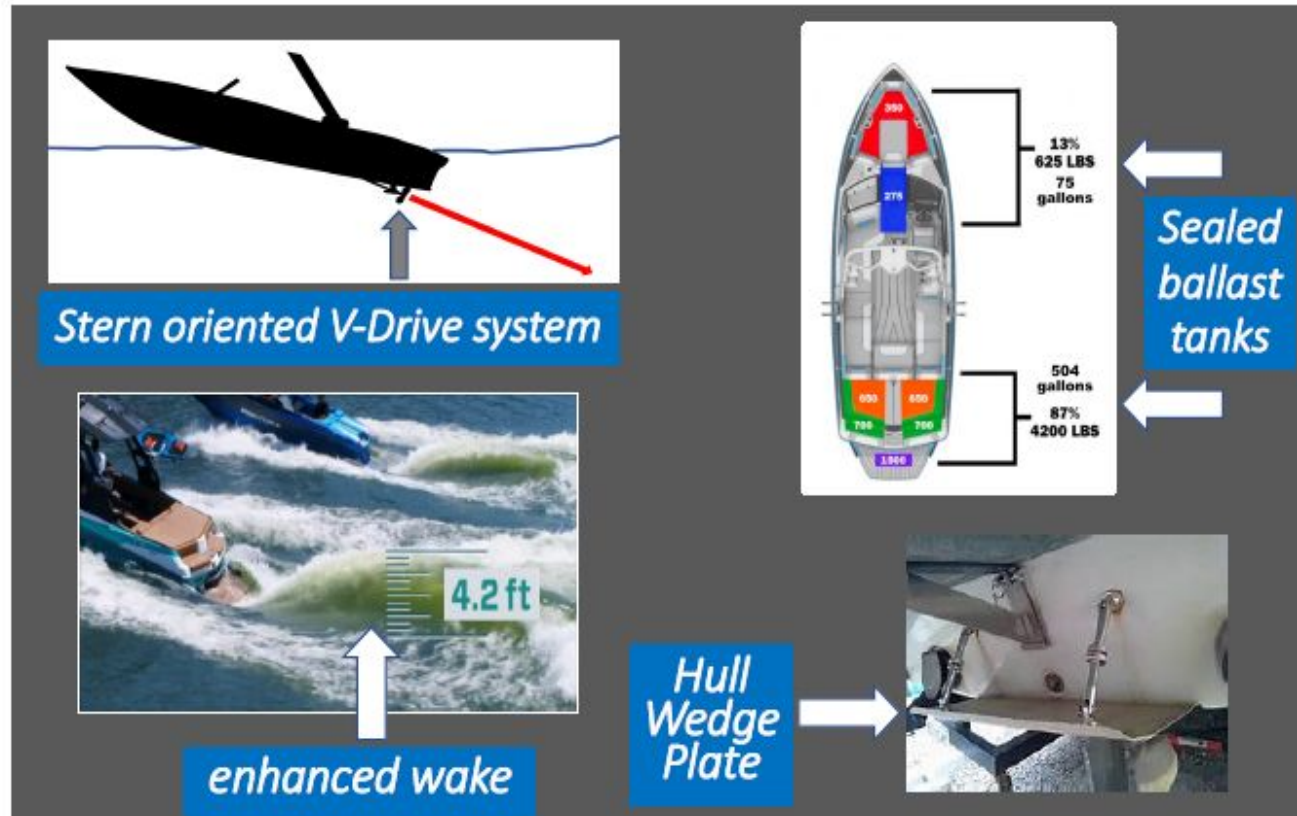
2023 LSA Membership Impromptu Comments

Stimulated by Question Relating to Interest in Attending a Water Quality Information Meeting

- 1) Water quality was very poor last year.
- 2) Very important.
- 3) I'd like to see the blue green algae tested for cyanobacteria (lethal to dogs). I believe we test for algae, but not for toxins.
- 4) Water not as clear, but I haven't seen anything bad in the water quality reports.
- 5) A hard look @ wake boats stirring up stuff and if/how affects water.
- 6) Water quality is awful compared to when we moved in almost 20 years ago. Needs to be a priority to maintain housing values.
- 7) #1 concern. This issue should be addressed.
- 8) We appear to be one of the least clear water lakes. Why? What are surrounding lakes doing to have clear water?
- 9) Healthy water protects the value of our property.
- 10) Water does seem dirty in appearance.
- 11) Water is dirty brown color.
- 12) We need a clean water lake.
- 13) This should be a priority. I'm concerned too.
- 14) Please do something about water quality.
- 15) Concern about algae blooms.
- 16) Water quality should be one of highest priority.
- 17) The water appears clean & clear only in the winter months!
- 18) Lake is very murky. At this time, it looks very dirty.
- 19) Sometimes brown & you cannot see bottom of lake from dock. Fishing has gotten worse. Surf boats are a hazard.
- 20) Worst water quality in at least 3 decades. Research shows wake boarding churns up lake settlement, exposing new nutrients for algae. Our lake is too small for such selfish activity.

I never realized that the algae & wake surfing were connected until I start this research.

What is a wake boat?



- An inboard motorboat with the engine placed “backwards” in the rear of the boat (“V-Drive”) and ballast tanks for greater weight towards the stern to significantly increase wake/wave height (2 to 5 ft). They can have additional wake enhancing features: modified hull shape, hull wake plates, hull trim tabs, etc.
- While a number companies manufacture wake boats, existing inboards and inboard/outboards can be modified to increase their wave height by adding weight in rear of the boat as well hydrofoil plates to the bottom of the hull.

Wake boats have unique features and impacts

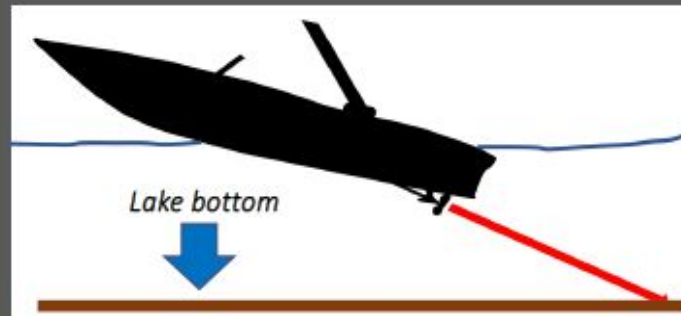
Enhanced Wake



Operating wake boats close to shore:

- Causes shore erosion and near shore turbidity
- Disrupts underwater plant habitat
- Disrupts loon nests & other shoreline wildlife habitat
- Causes shoreline structural damage
- Jeopardizes boating & swimming safety

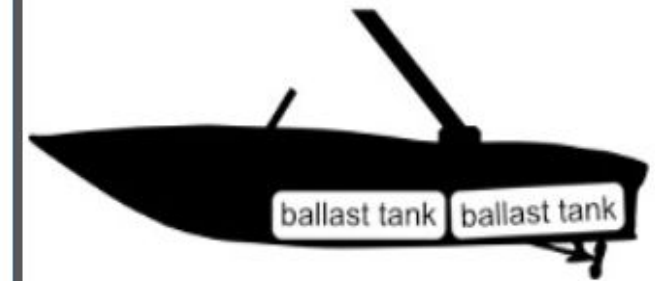
Deep Propeller Wash



Operating wake boats in shallow water:

- Disrupts lake bottom ecology: impacts on fish, insects, and other organisms
- Uproots & shreds aquatic invasive species (AIS), with fragmentation leading to AIS spread elsewhere
- Resuspends sediments & nutrients: increasing chance of toxic algae blooms & smothering of bottom plants

Large, Inaccessible, Ballast Tanks



Wake boats' 2 000 to 6 000 pound water ballast tanks cannot be:

- Completely emptied
- Inspected
- Effectively decontaminated

Hence, the risk of lake-to-lake transfer of new AIS, e.g., Eurasian milfoil, Curly pondweed, etc., is significantly increased

MI-DNR Literature Review – Not “Opinion”

Dr. Joel Nohner of the Michigan DNR presents "A Literature Review of Wake Boat Effects on Aquatic Habitat", published as DNR Fisheries Report 37 in July 2023.

1. “The first wake boats typically have an inboard motor. They're inboard motors where the engine itself is housed in the hull. And then it's driven through a drive shaft down to a propeller that sits below the boat. What you'll notice here is that drive shaft comes out at an angle, a downward angle... in this example ... at an 18 degree angle.”
2. “The boat's ability to generate down force, and that helps it to generate larger waves. Wakeboats have ballast tanks that can be filled with thousands of pounds of water. 3-5 thousand pounds of waters is typical for wake boats that down force really helps them to create much larger wakes. They also have hydrofoils that lower the stern when the boat is under power and can provide up to 1,000 pounds of down force themselves. We're talking about four to 6,000 pounds of down force that the boat is creating in addition to the already heavier weight of the boat.”
3. “Then finally, the hull is shaped to significantly increase wakes. But if you really want to understand the waves ability to erode a shoreline or potentially re-suspend sediment, those things, then it's also really important to understand the other aspects of the wave, like its speed, its length, etc. All of those aspects come into the waves. Energy, that's what we think is a better metric for assessing how much bigger and more impactful these waves are.”

Continued on next slide.

3. “Another potential way that wake boats can affect shorelines and lake health is through sediment re-suspension. **Sediment re-suspension increases nutrients and decreases water clarity in lakes**, which subsequently reduces the ability of fish to find food and reduces dissolved oxygen content in the water column, which is of course, bad for fish and the lakes health in general. **It can produce excessive algae** through the re-suspension of nutrients... **can increase phosphorus concentrations and algae in lakes**. The next consideration that we want to think about as relates to **fish habitats** is aquatic plants. Aquatic vegetation provides rearing areas for juvenile fishes. It provides increased fish growth in total fish biomass, and it reduces wave energy in the nearshore zones.”
4. “A field study by Raymond and Galvez-Cloutier (2015) found that wake boat propellers generated water velocities with the capacity to **re-suspend unconsolidated sand, silt, and smaller organic materials at a depth of 15 feet** while the boat was in wake-boarding or wake-surfing modes. Models developed by Ray (2020) calculated that modern wake boats can **cause sediment re-suspension in water down to 33 feet deep**.”

As a result of the MI-DNR’s literature review **of 53 studies** (including the National Marine Manufacturers Association), the MI-DNR recommends wake boats operating in wake-surfing or wake-boarding mode to operate at **least 500 feet from docks or the shoreline**, regardless of what the depth of the water is; and to **operate in water depths of at least 15 feet**.

Adverse impacts of wake boats

safety



capsized boater



child swamped by wave

environmental



algae bloom fish kill



shoreline bank erosion



shoreline habitat destruction (loon nest raft)

property damage



Economic Costs of:

1. Shoreline property and structural damage
2. Decreased water quality resulting in decreased property values due to cloudy water, algae blooms
3. Potential for spreading invasive species when boat is transported from lake to lake

Why manage wake boats?



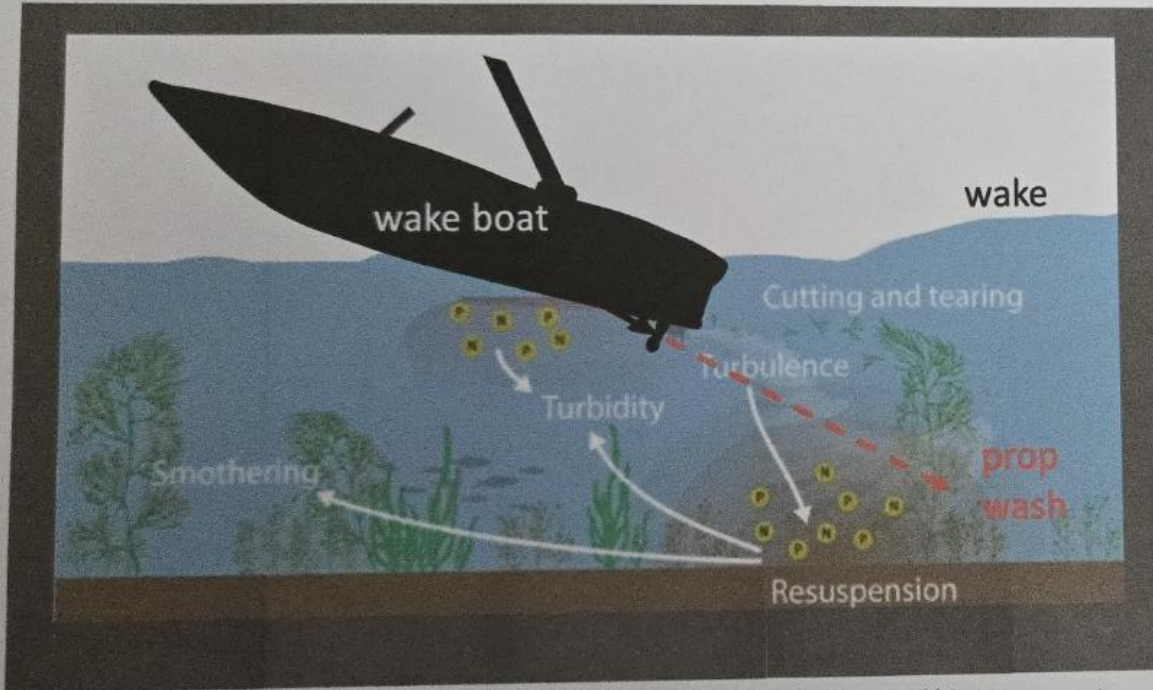
To allow for safe,
shared use of lake
with all users

For the ecological
protection of lake
water, fishery and
lake bottom
vegetation.

To maintain
property values



Why deeper than 20 feet?



For detailed information, see link to RWVL 's ANR Petition : <https://dec.vermont.gov/watershed/lakes-ponds/rulemaking> Page 12 of 17

- Wake boats with heavy stern ballast tanks & 200-600 hp motors “plow” through the water with their bow up.
- Downward-directed propeller “wash” can disturb lake bottoms at 20 ft & more and:
 - Shred & uproot plants spreading aquatic invasive species, e.g. Eurasian milfoil
 - Stir-up bottom sediments creating turbidity, disrupting micro-organism, plant, & fish habitat, and releasing nutrients contributing to toxic algae blooms

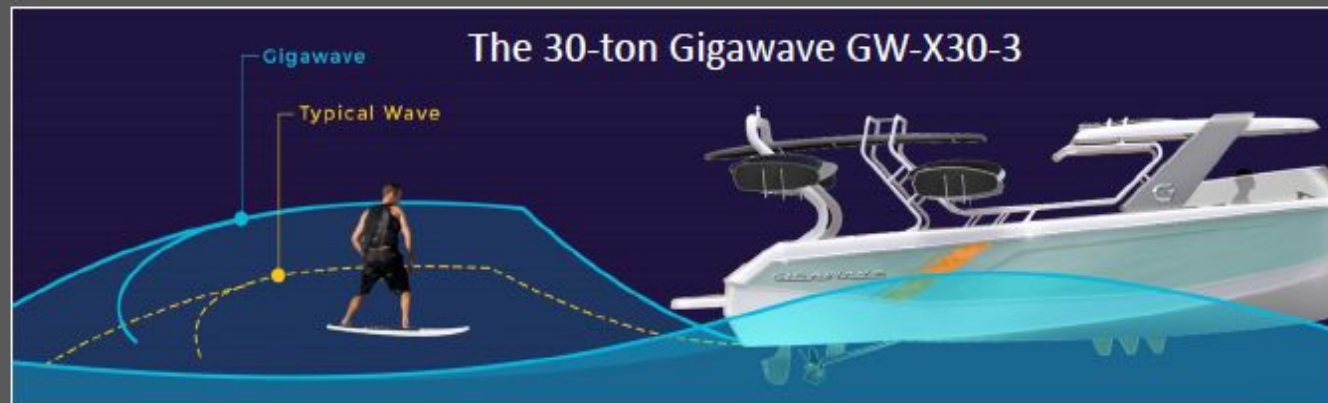
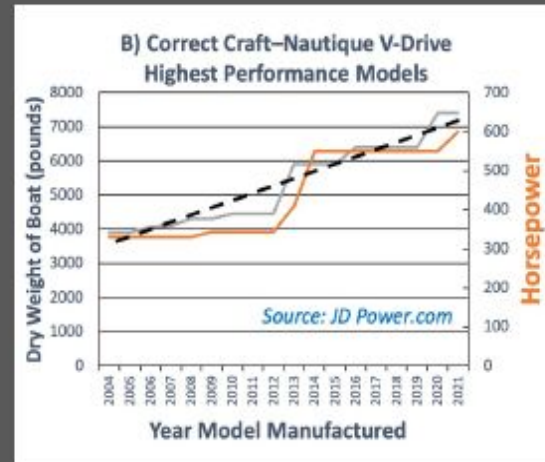
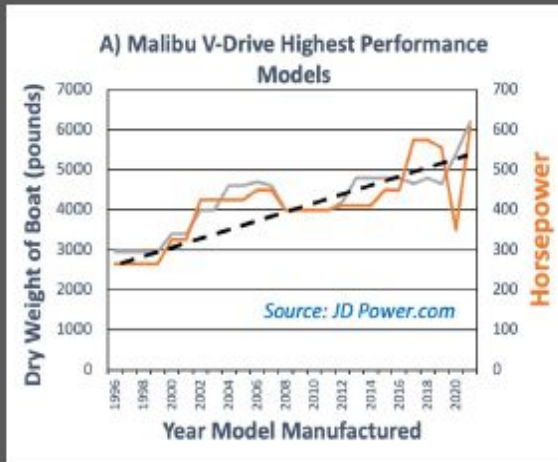
Vermont Government Booklet on Responsible Wakes



[RWVL Picture Story Book 2022-09-08](#)

Responsible Wakes for Vermont Lakes

What will wake boats be like in the future?



As evidenced by the consistent upward trend of weight & horsepower of high performance boats over the past 20-25 years (see top 2 graphs), future models are likely to continue to become:

- Heavier (in dry weight)
- More powerful (measured by horsepower)
- Capable of generating ever larger waves ... as promoted by the makers of the Gigawave GW-X reportedly available for sale in 2022.

Recreation Damage - Fishing is affected by Wake Boats

“Sediment re-suspension increases nutrients and decreases water clarity in lakes, which subsequently reduces the ability of fish to find food and reduces dissolved oxygen content in the water column, which is of course, bad for fish and the lakes health in general. It can produce excessive algae through the re-suspension of nutrients.

Aquatic vegetation provides rearing areas for juvenile fishes. It provides increased fish growth in total fish biomass, and it reduces wave energy in the nearshore zones. ”

Source DNR Report



Harmful Algae Blooms and Your Health

KEY POINTS

- Harmful algae blooms are the rapid growth of algae or cyanobacteria in water that can harm people, animals, or the environment.
- Going in or near water with a harmful algae bloom can make you and your animals sick.
- Stay out if water looks discolored, has scum, or smells bad.

<https://www.cdc.gov>



Environmental Damage – Re-Suspension of Nutrients Stimulates Algae Growth



Photos posted on LSA Facebook in 2024 by a 39-year resident on the main lake who never saw this amount of algae on her shoreline before & wondered if anyone knew why.



Connecticut study noted “a 110% increase in total phosphorus 20 feet below the surface associated with a wake boat in surf mode.”

PROGRESSIVE RESPONSE TO WAKE BOATS ON LAKE SHERWOOD

In general, wake boats can and do cause damage to shorelines and recent research indicates that they can have detrimental effects on benthic environments and habitats in water depths less than 15 feet. We typically recommend that wake boats (at full wake/surfing mode) be operated at **least 500 feet from shorelines and in water depths greater than 15 feet.** Given Lake Sherwood's morphometry (size, shape and depth), this would limit the functional operation of **wake boats at full wake operation without some detrimental effects to the lake.** As a point of reference, I have attached two reports regarding wake boat impacts on Michigan lakes and a fact sheet reviewing the recent research on this topic and the DNR Fisheries position statement.

Thanks.

Paul J. Hausler
Water Resources Practice Leader
Office 616.447.3376
Cell 616.450.4716
weareprogressive.com



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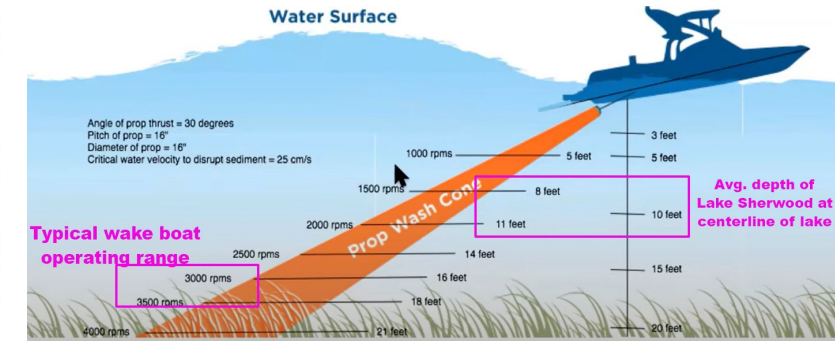
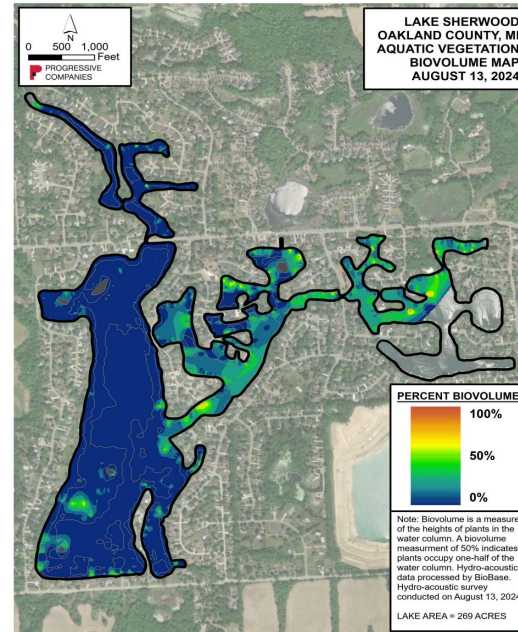
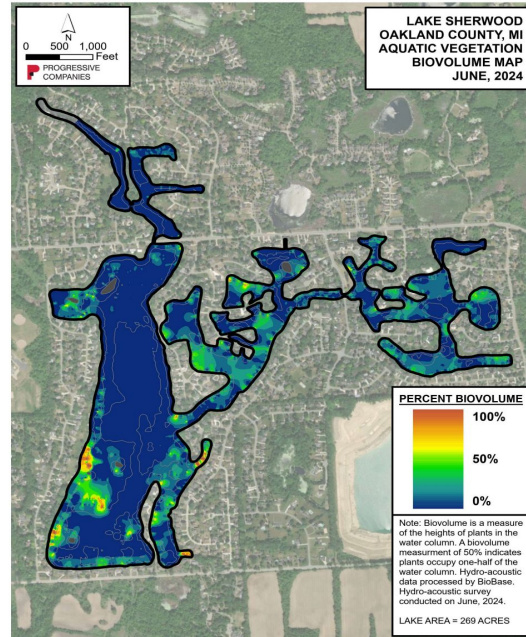
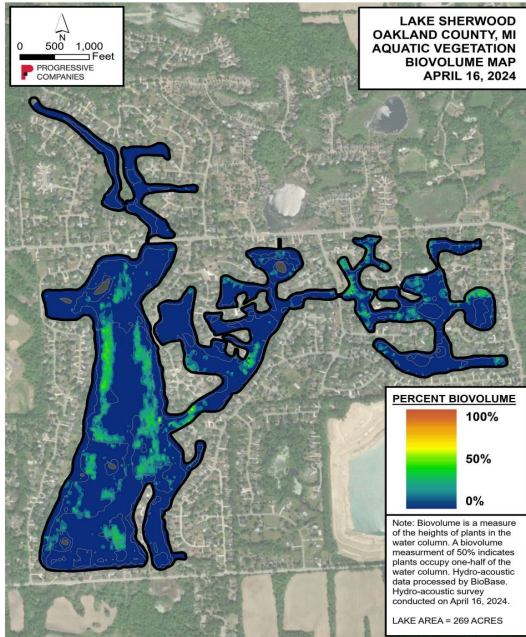
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**LSA Board Members told me Progressive said Wake Boats are just fine for Lake Sherwood
I had to contact the Company directly to get the truth**

Dr. Jude Report – Page 51 - “Wave Boats should be banned in shallow lakes with no deep zones”.

LSA website: 1d1d20_0bfdc152bbb146a9b53e70d41612ea3a.pdf

Environmental Damage - Bottom Scour Causes Phosphorus Resedimentation, Vegetation and Fish Habitat Loss



From PROGRESSIVE
REPORT

Lake Sherwood's wake boat zone is center of main lake from Higgins Island to Skier's Island.

Water depth in this zone averages approx. 8-9 feet vs recommended minimum of 15-20 feet for wake boats.

Bottom scour is shown to be happening by comparing complete loss of vegetation in this area from April 2024 to June 2024 and then to August 2024 vs other areas of lake bottom.

Scouring is causing phosphorus sedimentation, loss of lake bottom vegetation and fish habitat.

Lake Sherwood's measured 5% native vegetative cover is seriously below the target of 25%-30%.

LSA led Commerce Township's phosphorus ban on fertilizers, now expanded statewide.

Michigan's **Fertilizer Law** the use of **phosphorus** fertilizers on residential and commercial lawns, including athletic fields, cemeteries, parks, and golf courses statewide. Both homeowners and commercial applicators must follow the phosphorus application restrictions.



Middle number on Fertilizer bag shows Phosphate #

It is **0**

Property Damage - Soil Erosion

“Wake boat wave energies are 553-2546% higher than wind waves”.

Michigan DNR



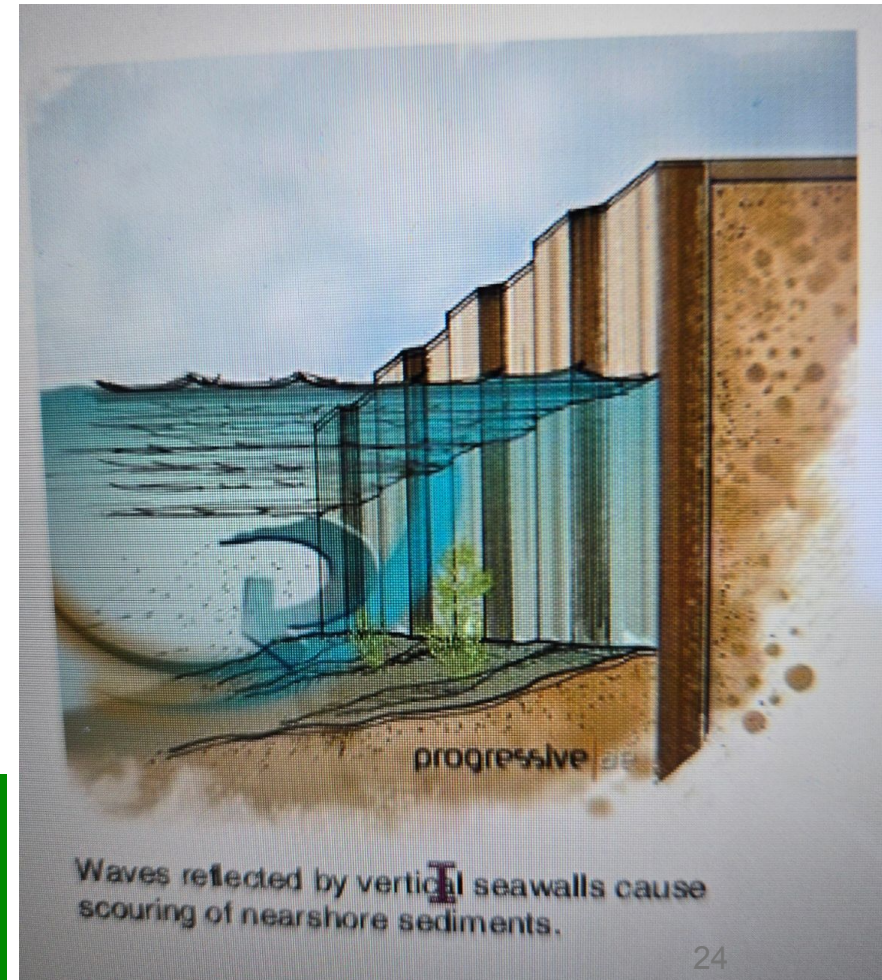
Wake surfing wave forces far exceed those of strong winds and traditional boats, causing shoreline erosion and shoreline erosion protection structures damage.

Waves reflected by engineered shoreline protection structures cause bottom scouring of nearshore sediments, aggravating phosphorus re-sedimentation and algae blooms.

Nearshore turbidity is elevated.



RESPONSIBLE WAKES
for VERMONT LAKES



Problem Statement - Experts Raise ALARMS About Wake/Wave Boating

- **Progressive** (1/6/2025 eMail from Paul Hausler to Martha) - “In general, wake boats can and do cause damage to shorelines and recent research indicates that they can have **detrimental effects** on benthic environments and habitats **in water depths less than 15 feet**. We typically recommend that wake boats (at full wake/surfing mode) be operated at least **500 feet from shorelines and in water depths greater than 15 feet**. Given Lake Sherwood’s morphometry (size, shape and depth), this would limit the functional operation of wake boats at full wake operation without some **detrimental effects to the lake**.”
- **Dr. Jude** (2023 Report to LSA – pg 51) - “There are a number of adverse effects generated by boat activity documented in these studies. There were disturbances to wildlife and fishes, destruction of macrophyte beds, riprap, and erosion of shorelines, increases in turbidity, and re-suspension of sediments and the associated nutrients that were released... it is our opinion that **Wave Boats should be banned**. They belong in the Great Lakes or other large lakes and **Lake Sherwood is too shallow to withstand the currents generated by the intense boat activity on the lake**.”
- **MI-DNR** Fisheries Report 37 (September 2022) - “The operation of wake boats in a manner that creates large waves and increases bottom scour is an emerging threat to natural resources in inland lakes. **Wake boats can produce waves with 1.7–17 times the energy of other comparable-sized powerboats and their propellers generate enough turbulence to re-suspend bottom sediments in water up to 33 feet deep**. The large waves generated by wake boats take between 225–950 feet to dissipate to heights and wave energies observed 100–200 feet away from similar boats operating at cruising speed. Further, the use of ballast tanks in wake boats results in a dramatic increase in risk for transporting Dreissenid mussels and other aquatic invasive species and pathogens among water bodies. The cumulative negative effects of wake boats on natural resources can lead to loss of habitat, resulting in the decline of aquatic ecosystems and angling opportunity.”

Five States Have Passed Laws Regarding Wake Boats

Alabama first state to pass Wake Surfing Ban

Oregon banned wake surfing altogether in a popular stretch of the Willamette River.

Vermont passed some of the strictest wake boat rules yet, containing wake boats to designated wake boat zones on most waters. Those zones are at least 500 feet from shore, more than 20 feet deep and more than 200 feet wide.

South Carolina passed a law in 2021

Tennessee Laws for Wake Boarders and Wake Surfers New Tennessee Laws for Wake Boarders and Wake Surfers — Tennessee Injury Law Center — May 23, 2022

Three More States are Considering Such Laws

Lakes at Stake www.lakesatstake.org/ **Wisconsin**

study on a Connecticut lake

Michigan - Bill did not get out of Committee - 2024 MI House Bill 5532

Experts agree wake boats should *NOT* operate in:

1. waters shallower than 15 feet,
2. no closer than 500 feet from shore or other structures/vessels.

Nowhere does Lake Sherwood meet this criteria.

- **Progressive** – Report sent to all LSA Board Members (report next slide)
- **The Michigan DNR** [DNR-Wake-Boat-Report.pdf](#)
- **MI-DNR Research Review** [MI-DNR-REPORT-37.pdf](#) –
- **Quality report from Dr Jude, limnologist** - [1d1d20_0bfdc152bbb146a9b53e70d41612ea3a.pdf](#) Page 51
- **The Michigan Waterfront Alliance** -
https://michiganwaterfrontalliance.com/wp-content/uploads/2024/12/MWA_Newsletter_December_2_2024.pdf
- **Connecticut** - Lake Waramaug Wave Impact Study (November 15, 2024) [lake_waramaug_final_report.pdf](#)
- **Minnesota content**
- **Wisconsin** Lakes video of stirring up the lake bottom
[WakeBoatsLakeEcosystemHealth_WGF-May2024_Final.pdf](#)
 - <https://youtu.be/DPhdLGrWX0Y?feature=shared>
 - <https://youtu.be/XuUvWnIXRPo?feature=shared>

Connecticut Study Compares Wave Surfing to Water Skiing

A recently-released [study on a Connecticut lake](#) found wake boats operated in surf mode produced much greater wave energy, propeller downwash and disturbance of sediments than traditional motorboats.

Among its conclusions, Terra Vigilis found wake boats in surf mode created waves twice as high and with four times the energy as normal waterski boats. As a result, *it takes more than 500 feet to dissipate a wake boat wave to the same height and energy as a waterski boat operated at 100 feet from shore, according to the scientists.*

The study also documented wake boat **propeller downwash impacts at depths of at least 26 feet.**

Terra Vigilis noted **a 110% increase in total phosphorus 20 feet below the surface** associated with a wake boat in surf mode. **By comparison, no significant increase in phosphorus was caused by a waterski boat,** according to the report. This new form of water fun for some has generated many concerns and conflicts, including reports of increased shoreline erosion, damage to lake bottoms and fish habitat and hazards to other lake users.

Wake-enhanced boating: **surface threats to other vessels; near shoreline disruptions; bottom scrubbing effects; shoreline structure impacts; nutrient release events to the water column; deep penetration propeller downwash effects; and wave attenuation distances prompting changes to traditional buffer distances.**

Note: Wisconsin is considering more aggressive restrictions. Wisconsin coalition is advocating a state law to require wake-enhanced boating: at least **700 feet from shore,** docks, rafts or other structures; **500 feet or more from other boats and lake users; in no less than 30 feet of water;** and before entering a body of water, any watercraft with a ballast system must be fully emptied and sanitized to prevent the transport of aquatic invasive species.

Eutrophic

- Both Progressive and Dr. Jude have declared Lake Sherwood to be eutrophic.
- “A eutrophic lake is typically shallow with a soft and mucky bottom. Rooted plant growth is abundant along the shore and out into the lake, and algal blooms are not unusual. Water clarity is not good and the water often has a tea color.”
- “Excess nutrients in water caused by eutrophication significantly degrade the quality of the water, often making it unsafe to drink.”
- “Excess nutrients lead to algal blooms and low-oxygen (hypoxic) waters that can kill fish and seagrass and reduce fish habitats.”
- How do you fix an eutrophic lake? **“Reduce the source of nutrients.”**

17% of Michigan lakes are eutrophic. 4% are hypereutrophic, meaning the water quality of those lakes is unrecoverable. Lake Sherwood is at risk of becoming hypereutrophic.

Reversing the Eutrophic Status of Lake Sherwood Requires a Multi-prong Approach

Status/Actions Associated with *Recommendations*:

1. Urge residents to **stop fertilizing**. If you're on **a septic system**, have it **pumped regularly** or failed -connect to sewer.
Septic Systems – The Charter Township of Commerce
1. Plant shoreline **buffer zones**
2. Draw lake down in Fall to facilitate **beach raking**. Keep yard waste -grass clippings & **leaves out of the lake**.
3. Continue executing the plan to **remove sediment** and open the natural flow of the Wildwood River
4. Stop killing so many weeds as it contributes to algae growth “
5. **No leaf burning**
6. Use only biodegradable cleaning products outside.
7. Assess the storm-drains. If there are leaves & sticks, clean them up & prevent them from getting in lake.
8. Reduce hard surfaces and *promote green space*
9. **Don't add additional sand to your beach – it eventually ends up in lake.**
10. **Support measures to thwart geese** as they can cause E coli - egg destruction and goose round-up – MI-DNR (USDA)
11. Do not swim or let pets swim in areas that have paint like algae
12. **Regulate Wake Boats** Michigan DNR Study recommends 500 ft from shore and at least 15 feet deep due to scouring of bottom, putting into suspension phosphorous rich sediment, uprooting plants and shoreline erosion.
13. Install, flip, remove, replace and **repeat EutroSORB Bags** in above waterline culverts
14. Evaluate the two competing **muck eating devices** near the Wildwood River entrance
16. When adding fuel to watercrafts, **avoid spilling into the lake**. Use only biodegradable cleaning products outside.

Lake Sherwood has been working hard on all the above recommendations EXCEPT #12 Regulate Wake Boats

BY LAWS

LAKE SHERWOOD ASSOCIATION, INC.

ARTICLE II - PURPOSE

2.01 Purpose

The purpose for which this Association is formed is as follows:

- a. To actively promote the education of riparian property owners and other lake users about water quality and water safety.
- b. To morally and actively support issues which concern the welfare of lake and stream waters in general including the conservation of the water supply and environment of the Lake Sherwood watershed and that of the surrounding area, the maintenance of the water supply for safe recreational activities and the maintenance of the water supply and surrounding areas so as to be conducive to the renewal of fish, wildlife and plant life resources.
- c. To cooperate and otherwise interact with local, state and federal governments and educational institutions in matters relating to the preservation of water supply and quality.
- d. To actively oppose indiscriminate or over development of the waterfront or access thereto which could lead to overuse or improper use of the waters and deterioration of their quality including but not limited to the negative impact such would have on Lake Sherwood Association riparian property owners.
- e. To actively support the Michigan Lake & Stream Associations, Inc. and other lake associations in all matters that will promote the conservation of water quality and
- f. To actively promote the welfare of the Association member property owners in matters relating to building and lake restrictions, sanitation, taxation, public nuisance, property maintenance and threat and/or potential abuse of Lake Sherwood and its property owners by member or non-member influences.
- g. To do any and all things lawful in connection therewith for a non-profit Corporation.

Wake boats operated in inappropriate lake settings negatively affect fish habitat, plant life resources and water quality.
(MDNR and others)

Michigan Department Of Natural Resources
recommends the voluntary adoption of wake boat practices:

1. Operate 500 ft from docks and shoreline
2. Operate in water at least 15 feet deep

Adoption of MDNR recommended practices are essentially mandated by LSA bylaws.

Why Pass Motion

1. **Scientific Evidence** – Demonstrates the ill effects of wake boats on water quality, property damage, and safety issues. **The evidence is compelling, abundant, and growing.**
2. **Regulations Validate the Evidence** – A number of states have enacted regulatory controls on wake boat operations. More state are considering regulatory controls.
3. **Boat Manufacturer Lobbies Are Naysayers** – The boat manufacturers' non-scientific “study” of the effects of wake boats **has been discredited** by four highly qualified engineers/scientists/university reviewers (ref: “Four critiques of recent study sponsored by National Marine Manufacturers Association”).
4. **Lake Sherwood Does Not Meet Expert Recommendations for Wake Boat Operation** – The **overwhelming majority** of engineering studies and the MI-DNR recommend wake boat operation to be a **minimum of 500 feet from shorelines AND in water depth at least 15 feet deep.**
5. **Recommendation of Lake Sherwood's Water Quality Experts** – Both Progressive and Dr. Jude **recommend no wake surfing activities.**
6. **Michigan Boating Law** – Operation of a boat that disregards the safety or rights of others or endangers the property of others is illegal. Causing damage with a vessel's wake is a specific example of recklessness under Michigan law.
7. **LSA Board Responsibility** – Per the Purpose section of LSA's By-Laws, the LSA Board is chartered to take into account water quality, safety, property protection, fish, vegetation, improper use of the waters, and to “actively promote the welfare of the Association member property owners in matters relating to...lake restrictions,...and threat or potential abuse of Lake Sherwood and its property owners by member or non-member influences”. The documented science, expert recommendations, and LSA membership complaints of the ill-effects of wake boat operation on Lake Sherwood makes it incumbent on the Board to address wake boats in a manner that supports and upholds the Association's By-Laws.

Wake boat proponents on Lake Sherwood have made repeated claims that property values will be severely impacted if Lake Sherwood is no longer classified as an “All Sports” lake. This claim is not supported by legitimate evidence. To the contrary, the State of Vermont declared the opposite assessment (box at right)

LSA FaceBook postings by an LSA resident ignore advice from a real estate experts. The postings are flawed and do not provide any reasonable evidence that property values will be hurt by management of wake boats.

What WILL more likely affect property values?

1. If Lake Sherwood becomes a hypereutrophic lake, the health hazards of the lake will need to be legally disclosed on the property listing (just as other property defects must be disclosed). The population of people wanting to buy lake community property where the kids and pets are in danger will be very limited.
2. The continued vitriol about this topic on the FaceBook page is also a turn-off to home shoppers.

FAQ – Responsible Wakes for Vermont Lakes

State of Vermont Q&A:

Wake sport regulation will negatively impact lake property values.

Just the opposite. Lakefront property values are highest on clear, unpolluted lakes with many traditional recreational pursuits available. Wakesports close to shore or in shallow water increase nutrient loading, degrade water quality, and can infringe on traditional uses of lakes.

Wake Sports – Responsible Wakes for Vermont Lakes

Motion

Grandfather in all present wake boats,
but not allow any new wake boats.

If a resident moves/sells his/her property, the
boat must be removed from LSA registration
and cannot remain in Lake Sherwood.

The motion and this discussion has ZERO interest in controlling other forms of water sports.

Wake Surfing - A Threat to Our Lakes youtube.com

Ctrl Click on text above to play video



lastwildernessalliance.org