

The Human Element

Wake for Warriors



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I have PTSD and one of my biggest struggles is isolation and I struggle with doing things that bring me joy. I have never wake surfed, and I was extremely nervous about trying a new sport, but also going somewhere new with people I didn't know. This event was the first time in a long time where I laughed with the other vets, felt acceptance and appreciation from civilians, and I was so empowered when I finally got up on the board! It was a high that stayed with me for days after. This was life changing!

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Ed Gignac and Steve Radtke

- Last Wilderness Alliance (LWA) will represent the side that argues for strong local ordinances regulating the effects of wake boats.
- Wisconsin Watersports Coalition (WWC) represents wake boat enthusiasts who believe few to no ordinances are needed.

Wisconsin Watersports Coalition



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- We advocate for science driven decision making. **A fact-based adjustment to current regulations is warranted however**, excessive setbacks and total bans are not supported by the science.
- We partner with towns and lake associations to provide customized materials to aide in education and information to improve lake stewardship across all activities.
- **We are not affiliated with the boating industry.**
- **We represent ALL water sport activities**

Powers Lake

Case Study



- 451 Acre Lake with maximum depth of 33 Feet
- Good Fishing Lake
- Active Yacht Club with regattas every Saturday and Sunday.
- Per District of Powers Lake Census
 - Approximately 1,000 watercraft moored on the lake
 - Approximately 65 Boats with Towers (not all wake boats, not all ballasted and not all surf boats)
- Per Powers Lake Wake Surf Club
 - 20 Surf Boats in the club with a few resident surf boats not in the club.

Powers Lake



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- Cross section of property owners and boat owners similar to most lakes.
- Push to ban wake surfing in 2023
- Town of Randall, District of Powers Lake and Powers Lake Wake Surf Club reached a compromise to allow surfing to continue.
 - Defined “Recommended” surf pattern in the middle of the lake.
 - Moved surf traffic away from other water sports traffic by designating separate pattern.
 - Updated signage and “Common Sense Campaign” to educate lake users.

Powers Lake



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- Powers Lake Wake Surf Club has worked to educate lake users and promote safety and the protection of the lake environment.
- Regular emails and text messages to over 60 lake users.
- Surf Club recommended to all members to avoid surfing during sailing regattas. This helped to eliminate tension between the two groups.
- Since new pattern was implemented, there have been no issues related to surfing on the lake according to the Water Patrol.

Education at Work



Butternut Lake



Franklin Lake

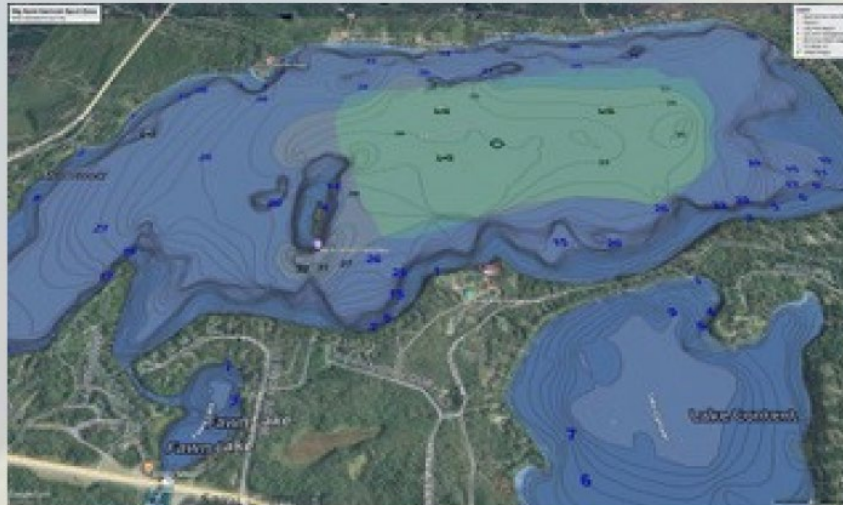
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Education at Work



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■ -Sport Zone



Big St. Germain

Recommendations at Work



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- District of Powers Lake Annual Meeting Comments
 - 2024 – “I was sure the new pattern was not going to work but I have to admit that I was wrong”
 - 2025- “What is the sailing community’s opinion of the surf club and surf boat community?” “It is positive, there have been no issues.”
 - 2026 - The only comment about Wake Boats was a resident asking for the status of a Statewide Law from an informational perspective only.
 - Town of Randall does not want to get involved in the issue provided lake users can stay harmonious.
- Butternut Lake - **No issues or altercations** between surfers and other lake users or riparians.

Wisconsin Dept. Natural Resources
Natural Resources Board Meeting
Jan. 28, 2026

Deputy Secretary Steven Little



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“If you only have a hammer as a tool then everything looks like a nail to you.”

In this case, ...”**the organizations who come before the board monthly on this issue will only be satisfied if the department uses a hammer even if the use is not supported by the science, statutory authority, or effective enforcement, or desired outcomes.**”

Aquatic Invasive Species(AIS):

Wisconsin Department of Natural Resources
Natural Resources Board Meeting
Jan. 28, 2026



Deputy Secretary Steven Little



- “In spite of what you’ve heard over the past several years from individuals and organizations who have come before the NRB, the **research has not demonstrated** that wake boats uniquely or disproportionately drive AIS spread compared to other watercraft.”
- “Scientific studies **do not show a causal link** between ballast systems and increased AIS spread.”
- Deputy Secretary Little also noted AIS in Wisconsin predates the popularity of wake boats. Data shows that **there has been no increase in the number of invaded lakes since the 2010’s**, and in fact, new invasions have declined over the past decade. These conclusions are supported by available scientific data

Where we are Today



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“Perception often moves faster than proof....wins don’t need to survive peer reviewed journals. They just need to be **repeatable stories** people want to believe.”

Anonymous

The Scientific Method



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The Scientific Method relies on skepticism, testing hypotheses, and attempting to disprove ideas **rather than seeking absolute certainties.**

Proper benchmarks, replication of data, statistical analysis, and formal peer review is the cornerstone of scientific analysis

The Studies

The vast majority of the studies are not peer-reviewed and/or published



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- St. Anthony Falls Lab -
 - Phase 1: Reviewers referred to it as a high-school-quality paper.
 - Phase 2: Changed parameters and boats the 2nd year of the study.
- Terra Vigilis:
 - WEC concluded formally that the Terra Vigilis report does not sufficiently establish that wake boat effects cause a significant degradation of water quality, that sediment movement alone is not an adverse impact without demonstrated secondary effects, and that the 500-foot recommendation lacks scientific rationale.

The Studies



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William Banholzer

- Professor of Practice, Department of Chemical and Biological Engineering, University of Wisconsin–Madison;
- Member, National Academy of Engineering (230 Chemical Engineers in the nation, 1 of 4 in Wisconsin)
- Certified Master Black Belt in Six Sigma Statistical Analysis

*“Setbacks ...such as those proposed in (SB)1024, are not grounded in hydrodynamic science. **Most studies used to justify 500 feet of wake boat distance or others don't meet the standards of scientific rigor required for legislation. They're self-published, they lack sensor calibration, they lack replication, statistical analysis, or formal peer review.**”*

Boating has changed.



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Double Standard

Yes, it is essential to benchmark comparable activities when comparing data. Comparing non-comparable data, sometimes referred to as comparing "apples and oranges," can lead to inaccurate conclusions, misguided strategies, and ineffective resource allocation. [\[Link to source: https://www.wisconsinwatersportscoalition.org/2022/01/20/why-comparing-apples-and-oranges-is-a-double-standard/\]](#)



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Accurate Benchmarks Comparable Boats?



2015 Yamaha 24'



2004 Crownline 240 EX



2007 Regal 2400



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**Somehow....the researchers failed to find
comparable boats**

Accurate Benchmarks Comparable Activities



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Is a Ski Nautique acceptable?
(ski boat- no ballast or tabs).

Is tubing with children acceptable?

Rave Sports "Keep your speed relative to the age and ability of your riders (i.e., keep it under 10 mph for children)." https://www.ravesports.com/blogs/life-on-the-lake/tubes-for-beginners?utm_source=chatgpt.com

•**Weekend Boat Life** notes: "For young or inexperienced children, a safe speed is about 8-10 miles per hour, allowing for a smooth ride without intimidating them". <https://weekendboatlife.com/towable-tube-age-restrictions/>

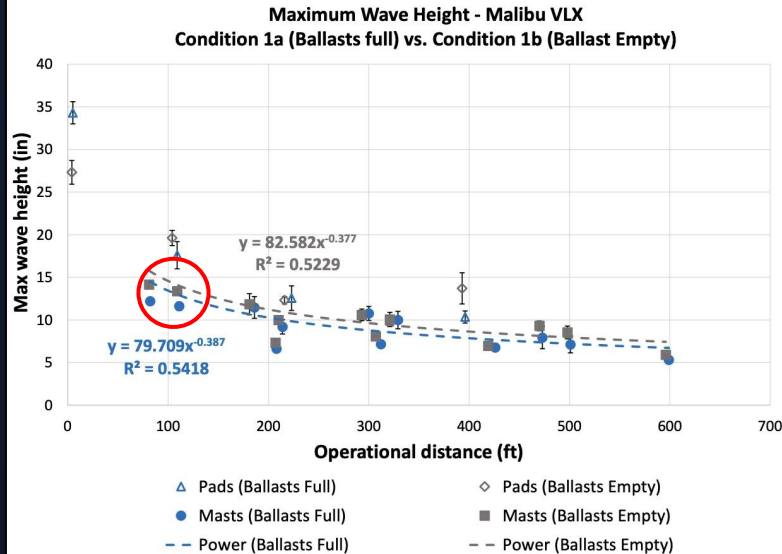
•**Lakefront Living** recommends: "When towing young kids on tubes, keep the speed between 8 and 12 MPH. The younger the age, the slower the speed". https://blog.lakefrontliving.com/what-is-the-proper-boat-speed-when-towing-a-tube/?utm_source=chatgpt.com



Wakeboarding: Recommended 10-24mph depending on experience

Ballast Vs. No Ballast Benchmark

Ballast vs. No Ballast
(page 82)



Ballast vs. No Ballast
(page 83)

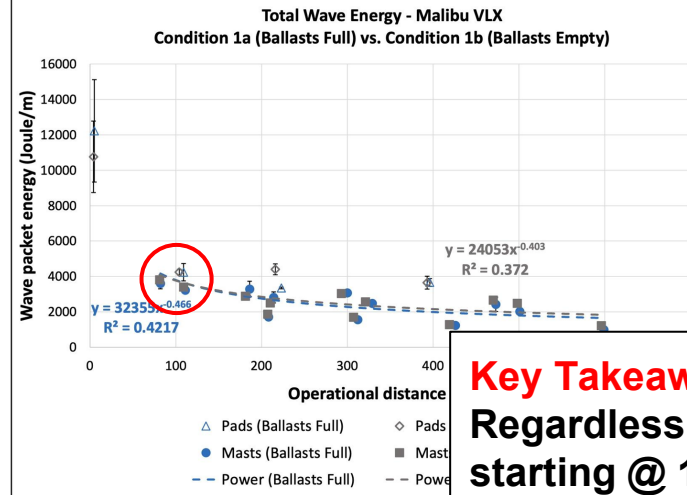


Figure 32. Comparison of the total wave energy of the Malibu VLX and empty. Data points less than one boat length from the track regression analysis.

Key Takeaway:
Regardless of ballast,
starting @ 100ft. from the
boat, wave height and
energy are similar.



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The same boat... Surfing vs. Cruising

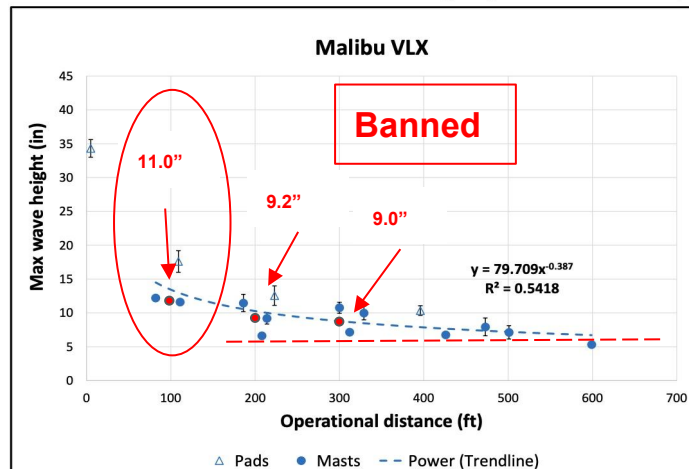


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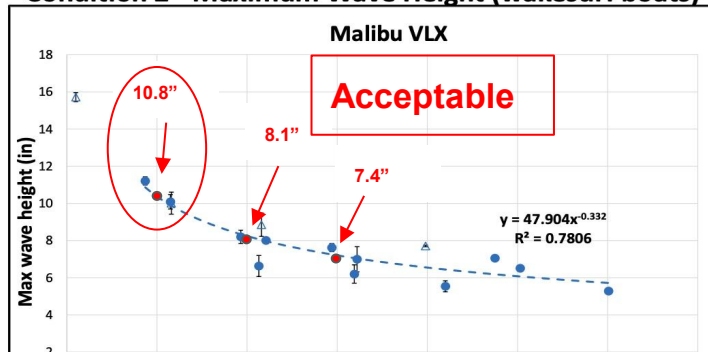
Condition 1a - **Surf Speed**: 11 mph
(w/ballast); page 59

Condition 2 - **Cruise Speed**: 20 mph
(no ballast); page 71

Condition 1a – Maximum Wave Height (wakesurf boats)



Condition 2 - Maximum Wave Height (wakesurf boats)



Marr(SAFL) had both a comparable boat and a comparable activity, yet chose a ski boat @ 200 ft. cruising as his benchmark....why?

Questions: Why....

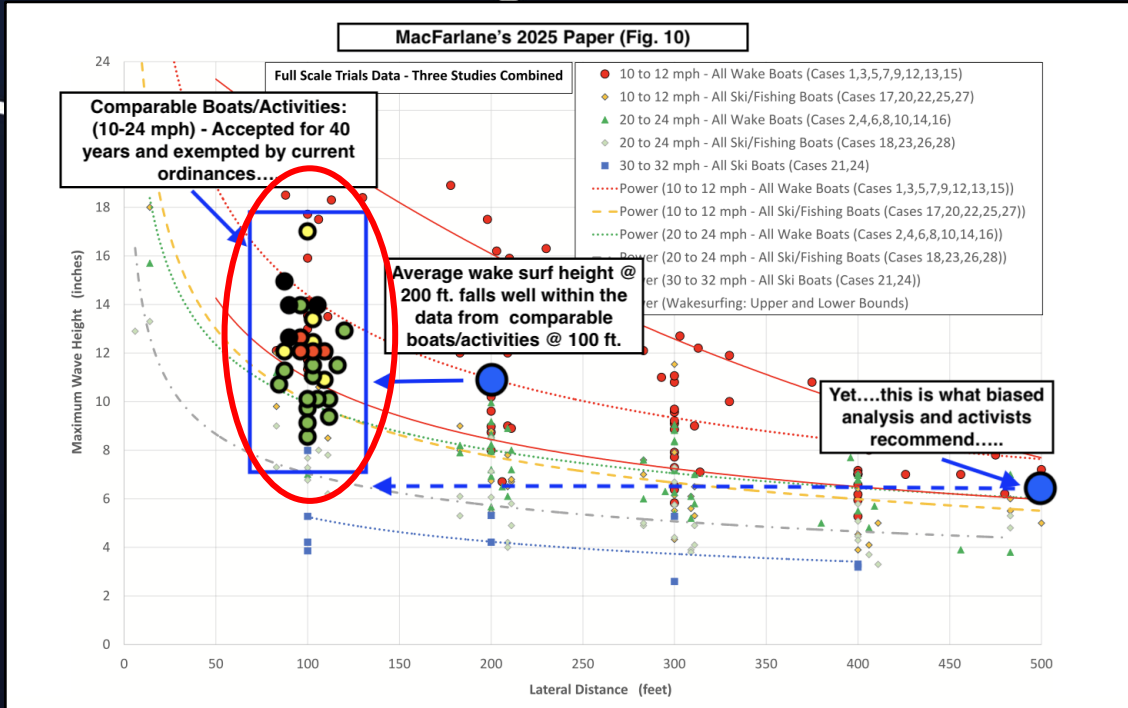
- Is one a safety risk yet the other is not?
- Is one a risk to the shoreline yet the other is not?
- Is one a wildlife risk while the other is not?

Non-Ballast Data!

Remember: This data all passes the ordinances!



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Key Takeaways:

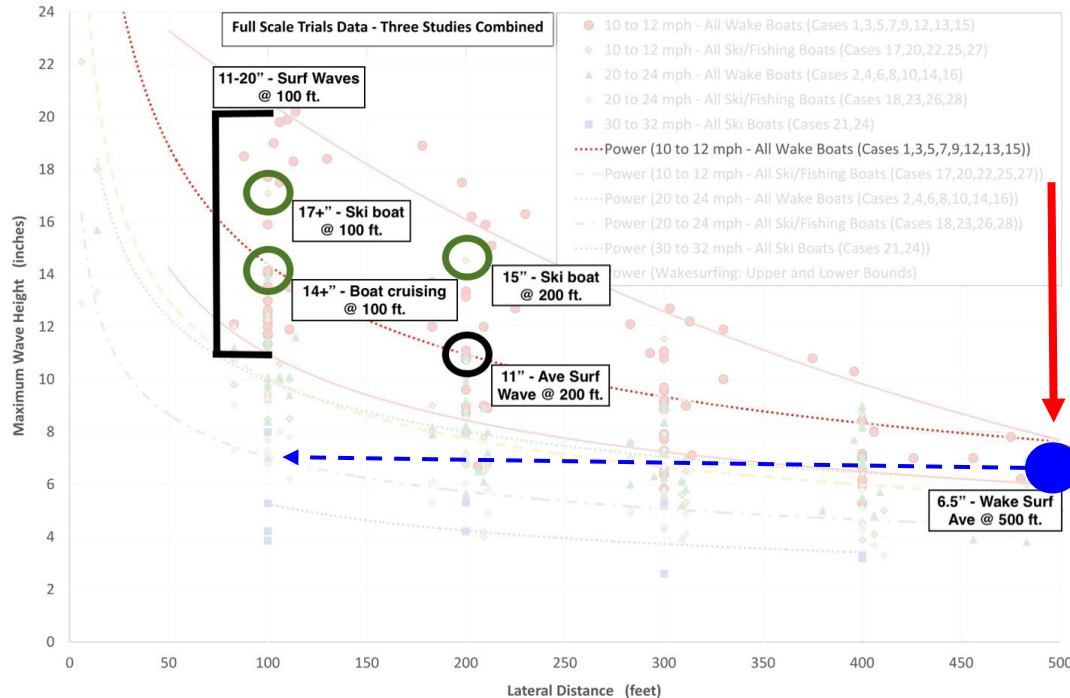
Without surfing, extensive data exists for non-ballast activities above the their "criteria" to 500 ft.

Do these activities and boats require a 500 ft setback also?

MacFarlane 2025



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Key Takeaway:
Comparable boats and activities can produce waves well above current criteria and in the range of surf data @ 100'.

Water Quality



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Does Wisconsin have a long term water quality issue due to Wake Boats? The answer is NO.

Making any decision that restricts a recreational activity on the lake should incorporate all valid lake health tools and testing versus subjective viewpoints and videos.

**This is our lake's
actual benchmark**



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- **Can operate at 100 ft. from shore**
- **Depths starting at 5 feet**
- Can operate 8-15 mph
- Tubing, Wakeboarding, Knee Boarding, and slow cruising
- Represents 96+% of the boats

Acceptable for 40+ years!

Sediment Resuspension

A double Standard

Normal boating activity
for 40+ years

Note sediment disruption and
propeller marks in plant life.



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Water Quality

Long Term Data?



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Why Aquatic Management Plans and Trophic States(DNR) are important?

By using the Trophic State Index (TSI) to differentiate lakes, water resource managers can assess ecosystem health, determine water bodies that need restoration, and establish policies and regulations.

These tools establish baselines for plant health and compares your lake to surrounding lakes and WI lakes in general and is available from the WDNR.

What the studies can measure...

3 Separate Studies.... **No measurable difference in suspended sediment after wake boat passing beyond 15 ft.**

- Daeger: Proceedings of the Indiana Academy of Science: 2022
- Raymond-Galvez: Laval University
- St. Anthony Falls Laboratory: University of Minnesota: 2025

versus-

Speculation and videos

- Pewaukee lake and "dredging" at 19-22 ft. Depth 15 ft wide by 30+ ft long

The St. Anthony Falls Phase 2 study even **recommends limiting boating activity in water less than 10 ft. of depth.**



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Wake Boat Studies: The Wind!!!

Wind went from
7mph to 15mph



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FINAL REPORT

JULY 2025

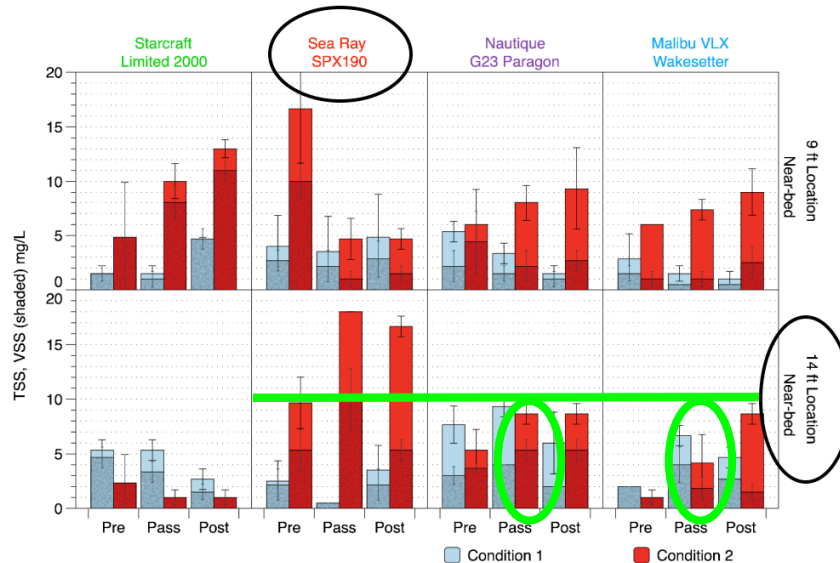


Figure 62. Total suspended solids (TSS) and volatile suspended solids (VSS; shaded) for 2023 water samples in Maxwell Bay. The blue and red bars are planing mode (Condition 1), and displacement mode for the non-wakeboats and semi-displacement for the wakeboats (Condition 2), respectively. The difference between TSS and VSS is the fixed suspended solids (FSS).

Total Suspended Solids (TSS) are affected by wind down to 14 ft. in depth...continuously for the entire lake versus the short duration of a single boat pass!

Any documentation?



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15,000+ lakes in Wisconsin

Approximately 1200 public lakes for motorized recreation (fast boating) in Wisconsin - 1% of 1200 - 12 lakes

Question: Have we seen “one” lake presented with actual data or a management plan showing long term degradation attributed solely to wake boats?

To date, nothing shows wake boats have affected water quality, shoreline, etc. more than any other boat on our lakes.

Accurate Analysis Is Key



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You have a responsibility to the residents, the riparians, the public to **ensure decisions are sound, evidence-based decisions-not arbitrary. Including all relevant benchmarks and comparable data, this changes the analysis—and the resulting setback recommendations.** Selectively excluding known benchmarks and comparable data, is cherry-picking, not sound science.

Enforcement Challenges

If you pass a local law, you must have local enforcement

- Town ordinances in Wisconsin must include specific penalty **and enforcement provisions** when establishing local boating regulations under Wisconsin Statutes § 30.77
- WI DNR will NOT enforce local ordinances
- Sheriff's Dept's may enforce with local contracts; however, several Sheriff Depts have stated that they will not enforce local ordinances.
- Many towns that have the existing ordinance are not enforcing the ordinance.



Enforcement Challenges



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- How do you define bow-high manner and continuous operation at transition speed.
- What if safe operation and continuous operation at transition speed are the same?
- If this is about safety and the environment, why are certain operations excluded?

Enforcement Challenges

Can you identify the Surf Boats



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Enforcement Challenges

Who is using ballast
and wake adjustment equipment?



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What's Really Happening...

There are currently 10 lawsuits by riparians in various stages

- 10 current lawsuits specifically against the ordinance and its merits
- Only 1 (Town of Scott) has been **dismissed without prejudice** due to:
 - **Town officials stated they had no intention to enforce the ordinance now or in the future.**
 - **However, if they choose to enforce it, the lawsuit becomes active again.**
 - **Under oath, town officials stated outside groups pressured them to enact the ordinance.**
- Other legal cases outside of these 10 have been settled based on the procedural steps used to enact the ordinances...**not on the merits of the ordinance itself. The Ordinance itself still has not been tested in court.**



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In Summary.....



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- **Why are we here? We have been told for years, through speculation and claims, that Wake boats are destroying your lakes, and we need to do something before it happens to yours- but what is really true.....**
 - **No study has established a link between boating in water deeper than 10 feet and long-term lake degradation.** Studies have, however, documented sediment resuspension from boating in shallow water. The St. Anthony Falls Phase 2 study even recommends limiting boating activity in water less than 10 ft. of depth.
 - The WDNR clearly answers the wake boat AIS question stating :” *In spite of what you’ve heard over the past several years from individuals and organizations who have come before the NRB, The research has not demonstrated that wake boats uniquely or disproportionately drive AIS spread compared to other watercraft”.*

In Summary.....



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- **The WDNR water Quality documentation and the Aquatic Plant Management Plans for Wisconsin's Lakes do not show deterioration to the long-term health of Wisconsin lakes – let alone specifically indicate wake boating is damaging Wisconsin lakes. Not a single document.**
- **The existing 100-foot setback establishes the benchmark for recreational boating on most lakes. Requiring significantly greater setbacks for wake surfing, despite nearly identical wave characteristics (height/energy), would impose an inconsistent standard unsupported by accurate benchmarks and comparisons.**
- **The Town of Scott Supervisors stated in their depositions – they were pushed into the ordinance by outsiders and cannot and will not enforce the current ordinance .**

In Summary.....



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Is an ordinance needed or are you acting on emotion – If you are ignoring the science, then are you making a decision using a hammer.

*"Sometimes that means acting aggressively and other times it means acting with restraint. If you only have a hammer as a tool everything looks like a nail to you. The wake boat administrative rule petitioners, **individuals and organizations who come before the board monthly on the issue will only be satisfied if the department uses a hammer even if the use is not supported by the science, statutory authority, effective enforcement or desired outcomes.**" **WDNR***

The Path to a Solution

Education – The WWC partners with towns and lake associations to provide customized materials to aide in education and information to improve lake stewardship across all activities.



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THE WHY BEHIND THE GUIDE:

Balsam Lake is enjoyed by boaters and lake-goers of all kinds, and it's essential for everyone's enjoyment that courteous boating practices are widely adopted. As the wake-boat community continues to grow, we play an important role in stewarding proper etiquette for our community of tow-boat owners. Conducting responsible boat operation will help us preserve the enjoyment of the lake for everyone, as well as our love for watersports.

Get In Touch:

"Balsam Lake Surf Club WI" on Facebook



facebook.com/grouppage/balsamlakesurfclubwi



BLPRD 1/2015

A GUIDE TO COURTEOUS BOATING PRACTICES

For Wake-Surfing & Wakeboarding
on Balsam Lake, WI



Endorsed by the Balsam Lake
Surf Club, in partnership with the
Balsam Lake Protection and
Rehabilitation District (BLPRD)

[Balsam Lake Surf Club WI on Facebook](https://facebook.com/balsamlakesurfclubwi)
BLPRD.com

The Guiding Principles To Respectful Wake-Boat Operation On Balsam Lake:

1) **Keep Your Distance:** Stay at least 200' away from shore and/or docks, and at least 100' from passing boats when at cruising speed. Pick up. Wake boats perform best in deeper water so staying in the middle of the lake is always going to be best.

2) **Minimize Repetitive Passes:** Don't spend too long riding back and forth along the same shoreline. Switch it up!

3) **Drive A Predicted Path + Avoid Power Turns:** This is a biggie - unpredictable driving patterns can create dangerous situations for your passengers, your rider, and other boaters. Turning around to pick up a fallen rider at cruising speed unnecessarily throws wake in all directions. Instead, reduce speed and idle through your turn to return to your rider slowly.

4) **Avoid Riding in Small/Congested Bays:** Pull your rider in larger, deeper parts of the lake, and avoid riding in smaller areas such as Little Balsam. Smaller bodies of water are more prone to congestion which can create an unsafe and disruptive riding environment when wake surfing/boating.

5) **Consider Your Wake + Your Surroundings:** Please be considerate of how your wake might impact others including anchored boaters, fisherman, sailboats, kayaks, canoes, paddle boarders, swimmers, etc.

6) **Keep Music At Reasonable Levels:** Sound travels much farther than you think on water, and loud music can ruin the peace and quiet for lakeshore property owners.

7) **Be Respectful:** By following these guidelines you are giving respect to other boaters and lake goers. Giving respect gets you respect. Don't be the person who gives a bad name to all wake boat owners.

8) **Help Spread The Word:** If you see a driver not following these guidelines, take the opportunity to approach them and kindly explain the etiquette. Give them a copy of this brochure. Additional copies of this brochure are available at Sunnyside Marina.

9) **Learn More:** Take the exam and the pledge at [WakeResponsibility.com](https://www.wakeresponsibility.com). Once you do this, put the Balsam Lake Surf Responsibility sticker on the starboard (driver) side of your windshield.

Where To Ride:



Where To Avoid:

