

Dear ANR / Lakes & Ponds Program Staff,

Thank you for the opportunity to submit public comment on the proposed 2025 wakeboat rule amendments. After reviewing the proposed changes, the rulemaking documents, the submitted petitions, and the public comments supporting additional restrictions, I respectfully submit the following.

I oppose all of the the proposed 2025 rule, specifically the **100-acre lake threshold, the 3,000-foot straight-run requirement, the expanded interpretation of a 500-foot buffer from “any object” within the wakezone, application of Normal and Non-Normal use, and Section 3.7 and 4.3 Municipalities changes,**

and I support maintaining the 2024 rule as written. I don't feel as though the 2024 rules have been in effect long enough to determine if they are inadequate and need to be changed.

In reviewing the materials cited by those requesting further restrictions, the primary scientific sources referenced are research from the University of Minnesota and work conducted at the St. Anthony Falls Laboratory. These studies examine boat-generated wake characteristics such as wave height, energy, and how wakes attenuate with distance.

However, the way these scientific findings are being translated into the proposed regulatory thresholds introduces important differences between what the science evaluates and how the rule uses those numbers. The gap between **measured environmental science** and **policy expansion** is central to this comment.

500-Foot Buffer From “Any Object”

The Minnesota research evaluates how wakes diminish over distance, particularly in relation to shorelines, docks, and other vessels. The studies focus on wake attenuation, energy dissipation, and the role of depth and distance from shore.

The proposed rule expands this into a requirement that wakeboats remain 500 feet from “any object,” which functionally creates a wide operational exclusion zone around a vessel. The research cited does not define “object,” does not analyze swimmers, buoys, or wildlife markers as variables, and does not recommend a 360-degree exclusion zone within a wakesports area. This rule creates a **double standard** whereas if other boats come into the 500 foot buffer of the wakeboat, the wakebook would have to stop, possibly causing injuring to the surfer. Under the current rule, boats are to be 200 feet from other vessels, unfortunately, many boaters currently do not adhere to this rule.

The science describes attenuation relative to shorelines and boats. The “any object” interpretation represents a **policy expansion beyond the study context**, not a scientific threshold identified in the research.

3,000-Foot Straight-Run Requirement

The 3,000-foot figure appears in discussions as a typical wakesports ride length — a description of boating practice, not an environmental response metric. Wake science evaluates wave energy, propagation, depth, and distance from shore. It does not evaluate ecological impact relative to how long a boat travels in a straight line.

No study links sediment movement, erosion, or habitat effects to uninterrupted run length. The dimension is used in spatial visualization and operational descriptions, not as a hydrodynamic or ecological threshold.

This number originates from how the sport is performed, not how the environment responds.

100-Acre Lake Requirement

The 100-acre figure is derived from geometric modeling of space needed for a modeled run length and wake width. Wake research identifies environmental impact drivers as distance from shore, wave energy, water depth, and frequency of exposure. Lake surface area itself does not alter how a wake is generated or how it attenuates.

The Minnesota studies do not include acreage as a tested variable and do not identify a lake-size threshold at which environmental impacts change.

This threshold reflects a **spatial visualization**, not an environmental measurement.

D. Normal Use Definition

The position being advanced to the Vermont Agency of Natural Resources and DEC, including by the Federation of Vermont Lakes and Ponds, asserts that wakesports constitute a “non-normal use” because modern wakeboats did not exist in their current configuration prior to January 1, 1993. This interpretation does not align with the statute’s intent or with the historical record of recreational boating.

The relevant activity is **towed watersports conducted by inboard motorboats**, which unquestionably predates 1993. Towboats, ski boats, ballast-modified inboards, and wake-enhanced operation were in use prior to that date, and wakesurfing developed as an extension of these practices in the late 1980s and early 1990s. The statute does not provide that technological refinement within an established activity creates a new legal “use.” Regulatory interpretation consistently treats equipment evolution within an existing recreational category as continuation of that use.

The purpose of the “normal use” framework was to prevent *novel or incompatible* uses, not to fix recreational boating technology at a specific point in time. Accordingly, wakesurfing represents the evolution of long-standing inboard towed watersports, not a legally distinct category.

I respectfully request removal of language classifying wakesports as “non-normal use,” as no statutory, scientific, or historical analysis has been presented to support that conclusion.

E. Sections 3.7 & 4.3 — Administrative Removal Structure

The proposed amendments to Section 3.7 create a system in which wakesports eligibility may be added or removed from lakes through ongoing administrative discretion tied to management activities or research. When combined with the authority in Section 4.3 allowing restrictions for “other good cause,” this establishes an open-ended mechanism for suspending lawful recreation without defined procedural safeguards.

The rule contains no time limits, no formal re-approval requirement, no defined evidentiary standard, and no consistency protections. Temporary project-based suspensions could therefore function as permanent exclusions. This conflicts with the UPW framework requiring the **least restrictive approach practicable** to address use conflicts.

If temporary suspensions are to be permitted, they must include objective limits, written scientific findings, and automatic expiration unless renewed through formal rulemaking. Without these guardrails, the proposal shifts from science-based regulation to discretionary removal of access.

Science vs. Policy — and Public Trust

There is no scientific evidence, and specifically no Vermont-based research in the environmental context of these waters, that establishes 100 acres, 3,000 feet, or 500ft “any object” as ecological thresholds.

The cited wake research explains how waves behave relative to distance, depth, and energy. The proposed rules convert shoreline attenuation science, boating practice, and geometric modeling into fixed regulatory thresholds. None of the three proposed metrics are directly derived from studies measuring environmental impact at those specific values.

In May 2024, ANR stated that the current wakeboat rule was science-based and reflective of Vermonters’ shared interests. The additional 2025 proposals move beyond the scope of the cited research and apply operational or geometric figures as environmental limits without corresponding field-measured impact data.

When regulations shift from demonstrable science to numbers derived from advocacy pressure or the most vocal viewpoints, it risks eroding public confidence in the rulemaking process. Environmental governance depends on consistency, transparency, and measurable evidence. When the connection between data and regulation becomes unclear, trust in the system weakens.

Science-based policy protects both natural resources and the credibility of the institutions responsible for stewarding them.

For these reasons, I respectfully request that ANR retain the 2024 rule structure and avoid adopting the proposed 100-acre, 3,000-foot, and expanded “any object” buffer provisions.

Thank you for your consideration.

Mark S. Amoia, Concerned Boater

Scientific References

University of Minnesota — St. Anthony Falls Laboratory

Research on wake wave characteristics, energy, and attenuation relative to distance and depth

<https://cse.umn.edu/safl/news/umn-researchers-study-waves-created-recreational-boats>

Marr et al., Characterization of Boat-Generated Wake Waves (2022)

Wave height, energy, and attenuation study

https://coalitionnavigation.ca/wp-content/uploads/2025/09/BoatGeneratedWakeWaveReport_Feb12022_Final.pdf

Lake Waramaug Task Force — Shallow Water Environment Wave Impact Study (2024)

Wave energy propagation and shoreline distance findings

<https://static1.squarespace.com/static/5852df852e69cfa768783fd0/t/6791117b64c0e95b7061fb1b/1737560444987/LWTaskForce%2BShallow%2BWater%2BEnvironment%2BWave%2BImpact%2BStudy%2BFinal%2BReport%2B010825.pdf>

Daeger et al., Impacts on Nutrient and Sediment Resuspension by Various Watercraft

Depth-dependent sediment disturbance findings

<https://lakes.grace.edu/wp-content/uploads/2023/04/Impacts-on-Nutrient-and-Sediment-Resuspension-by-Variou-Watercraft-Proceedings-of-the-Indiana-Academy-of-Science-2023.pdf>

Goudey & Girod — Characterization of Wake-Sport Wakes and Their Potential Impact on Shorelines (2015)

Goudey, C. A., & Girod, L. G. https://www.wsia.net/wp-content/uploads/2020/03/WSIA_draft_report_Rev_II.pdf?utm_source=chatgpt.com

MacFarlane — Wake Characteristics from Recreational and Wake Boats (2025)

MacFarlane, G. J. (2025) <https://mymlsa.org/wp-content/uploads/2025/04/wake-macfarlane-2025-wakesurfing-wakeboarding-and-waterskiing-a-comparison-of-wake.pdf>

** please note the university of Minnesota and Marr Et Al were presented and referenced through public comments and petitions by those requesting additional restrictions.