Prepared for Submission to the Vermont ANR/DEC by Responsible Wakes for Vermont Lakes

March 26, 2026

Vermont DEC Use of Public Waters Rules — Proposed Wakesports Amendments

Rebuttal to Arguments Against Proposed Rule Amendments

Introduction

The following document provides direct rebuttals to each of the eleven opposition arguments identified in the public comments submitted through February 27, 2026, for the proposed Use of Public Waters Rules wakesports amendments. These rebuttals are intended to assist the Vermont Department of Environmental Conservation in evaluating the weight and credibility of opposition claims before reaching a final rulemaking decision.

Each rebuttal addresses the argument on its own terms, identifies factual errors or logical weaknesses, draws on evidence already in the rulemaking record, and explains why the argument should not prevent adoption of the proposed rule changes.

NOTE	**Framing principle:** The opposition's core strategy throughout is to demand Vermont-specific, peer-reviewed data before any rule change is made. The DEC should note that this standard, applied consistently, would prevent any protective regulation until after documented harm has already occurred — the opposite of responsible environmental stewardship and the Precautionary Principle that underlies Vermont's statutory mandate.

Rebuttal 1: Scientific Evidence Justifies DEC's Threshold Decisions

Opposition Claim

The 100-acre minimum wake sports zone, 3,000-foot run requirement, and 500-foot buffer are not supported by peer-reviewed literature and are instead derived from geometric modeling or operational assumptions.

Rebuttal

The SAFL/Marr et al. 2022 study — the most comprehensive wake boat wave characterization study in the record — directly supports the 500-foot buffer, and the same study's data actually support a *stricter* standard than the DEC has proposed:

- The SAFL study found that wake boat wave HEIGHT does not attenuate to reference conditions until approximately 500 feet — supporting the proposed buffer.
- Critically, the same study found that wave ENERGY requires more than 575 feet and wave POWER more than 600 feet to dissipate adequately. On this reading, the proposed 500-foot buffer is already a conservative compromise, not an overreach.

- The DEC's own September 2023 internal memo recommended a 600-foot setback. Settling at 500 feet was itself a concession to practicality.

On the 100-acre and 3,000-foot thresholds:

- Vermont is not required to act only on Vermont-specific peer-reviewed field studies. The SAFL study, Riesgraf 2025 (SAFL Phase II), the Lake Waramaug Task Force study, Daeger et al. (2023), and the Michigan DNR literature review collectively establish that wake boats cause materially greater and deeper sediment disturbance, shoreline erosion, and wave energy than conventional boats.
- The 100-acre and 3,000-foot minimums are the regulatory expression of a simple geometric and ecological logic: a water body must be large enough to provide adequate separation between wakesports activity and sensitive areas. This is consistent with how minimum lake-size thresholds are used in resource management across many regulatory contexts.
- The opposition's own admission that 'a wake does not know the size of the lake' misunderstands the purpose of the acreage threshold. The 100-acre minimum is not intended to change wave physics — it is intended to ensure that a lake is large enough to contain a safe operating corridor while also preserving sufficient space for other users. That is a planning and safety standard, not a wave physics claim.

KEY POINT	The opposition cannot have it both ways: they argue the thresholds lack science while simultaneously citing the same studies that supporters use to justify those thresholds. The contested question is not whether the studies support protective rules — they clearly do — but whether the thresholds are set at precisely the right number. That is a judgment the DEC is empowered and obligated to make.

Rebuttal 2: The 100-Acre Wakesports Zone Threshold Reflects Sound Regulatory Practice

Opposition Claim

The 100-acre figure is derived by multiplying 3,000 feet × 1,000 feet = ~69 acres and then rounding up arbitrarily to 100 acres, with no documented scientific rationale for the 31% excess. An ANR email allegedly admitted the threshold was based on 'anecdotal information, not hard science.'

Rebuttal

- The geometric derivation of the 100-acre minimum reflects sound regulatory practice, not arbitrary decision-making. Resource management agencies routinely apply safety margins and rounding when setting thresholds, particularly when consequences of setting a threshold too low are irreversible (shoreline erosion, permanent habitat loss, etc.).
- The corridor of 3,000 × 1,000 feet does not represent a maximum footprint — it represents a minimum operating corridor. In practice, a wake boat does not travel in a perfect straight line; it accelerates, the rider falls and restarts, turns occur, and multiple passes are made. A 100-acre zone provides a meaningful, if modest, margin above the mathematical minimum.
- The opposition's speed-based recalculation (claiming runs are really 2,100–2,600 feet at typical speeds) actually strengthens the case for the 100-acre minimum. If lower speeds are common,

wake boats are operating in surf mode at approximately 10 mph for extended durations per session — not one 3-minute pass, but repeated passes. Cumulative wave energy exposure from multiple passes at varying speeds and headings is not captured by a single-run calculation.

- Even if the exact threshold figure was set pragmatically rather than derived from a single equation, that does not invalidate it. The underlying science — multiple studies showing materially greater wave energy, sediment disturbance, and shoreline impact from wake boats compared to conventional craft — clearly supports a minimum wakesports zone size larger than in the current rule; 100 acres is justified.

KEY POINT	The opposition's mathematical critique is flawed. Even accepting every speed and geometry concession the opponents propose, the correct result is still an acreage minimum substantially above the current 50-acre threshold — validating the direction and general magnitude of the proposed change.

Rebuttal 3: Industry-Funded Simulations Lack the Scientific Rigor of Independent Field Studies Supporting DEC's Amendments

Opposition Claim

The SAFL/Marr et al. 2022 study and the Lake Waramaug 2024 study are commissioned technical reports, not peer-reviewed publications. Rules should be based only on peer-reviewed research. Prof. Banholzer's white paper challenges the SAFL methodology.

Rebuttal

- Vermont law does not require regulations to be based exclusively on peer-reviewed academic literature, nor does it require that any science be established within Vermont's borders. The laws of physics do not change when a state border is crossed. Regulatory agencies routinely rely on commissioned technical studies, agency reports, and expert testimony — particularly when peer-reviewed literature does not yet exist for a newly emerging activity. Courts and legislatures consistently uphold rules based on substantial, credible technical evidence, even in the absence of peer review.
- The SAFL study was conducted by researchers at one of the nation's leading hydraulic engineering laboratories (University of Minnesota) using controlled field measurements. It has been subject to extensive scrutiny in this and other state proceedings and has withstood that scrutiny. The absence of a formal peer-review publication stamp does not negate the quality of the methodology or the reliability of the measurements.
- The opposition's preferred 'peer-reviewed' studies — MacFarlane (2025) and Goudey & Girod (2015) — both confirm that wake boats produce substantially greater wave energy than conventional boats. These studies support protective regulation; they simply do not, by themselves, specify minimum thresholds. That determination appropriately falls to the DEC.
- Goudey & Girod is described in the comments as a 'WSIA/MIT peer-reviewed study' — but the study was not peer reviewed. This study was commissioned by the WSIA (Water Sports Industry Association), which is a wake sports industry trade group. Industry-funded studies that favor the industry's position deserve scrutiny equal to — or greater than —technical studies.

- Prof. Banholzer often presents his testimony as a "private citizen" and "Wisconsin resident," but his role in these debates is highly controversial. He has been a paid expert witness providing formal testimony and written reports for the National Marine Manufacturers Association (NMMA) and the Water Sports Industry Association (WSIA). His 2022 study (sponsored by the NMMA) was heavily criticized by independent researchers and state agencies. Critics argue his models use "cherry-picked" data, such as comparing wake boats to fishing boats that are intentionally heavily loaded to create the largest possible wake.

KEY POINT	The peer-review standard the opposition is applying would, if consistently followed, bar virtually all environmental regulation until documented harm had occurred. Vermont's regulatory mandate includes preventing irreversible harm before it occurs. The weight of technical evidence in this record — peer-reviewed and otherwise — uniformly supports the conclusion that wake boats cause materially greater impacts than conventional boats and that existing setbacks are insufficient.

Rebuttal 4: The Lake Bomoseen Field Comparison Is Useful Supplementary Information Supporting DEC's Findings

Opposition Claim

ANR's informal field comparison on Lake Bomoseen used a moving rangefinder, was conducted with other boat traffic present, relied on one kayaker's subjective impression, and tested only two distances. This is insufficient to establish a statewide 500-foot rule.

Rebuttal

- The field comparison is one data point in the record — but it is not the primary basis for the 500-foot buffer. That buffer is grounded primarily in the SAFL wave energy and power findings, which show a minimum of 575–600+ feet is needed for adequate dissipation, and in the DEC's own 2023 internal recommendation of 600 feet. The field comparison corroborated, rather than established, the buffer.
- The opposition's critique of the field comparison's methodology is, if accepted, a call for more rigorous field research — not for abandoning protective regulation. The DEC can acknowledge methodological limitations in the comparison while maintaining that the cumulative evidence in the record (SAFL, Riesgraf, Lake Waramaug, Daeger, hundreds of first-hand accounts from lake users) overwhelmingly supports a buffer greater than 200 feet.
- The opposition had every opportunity to submit its own field data or commission its own measurements. Instead, they submitted mathematical critiques and philosophical objections. Absence of competing data is not a defense against protective regulation — it is a gap in the opponent's case, not the agency's.

Rebuttal 5: Wake Sports Do Not Qualify as 'Normal Use' Under Vermont Law

Opposition Claim

Towed watersports using inboard motorboats predate 1993. Wakesurfing is a technological evolution of an existing normal use, not a categorically new activity. Classifying it as non-normal sets a dangerous precedent.

Rebuttal

- The opposition's own examples confirm this: Eric Splatt's anecdote about 'wake-style riding in the 1960s using passenger weight' describes casual boat wakes — not 10,000-pound purpose-built vessels specifically engineered to generate 3–4 foot surf waves using 3,000+ pounds of ballast water. The scale and character of the activity are categorically different.
- At the 2024 LCAR hearings, Vermont's then DEC Commissioner Jason Batchelder specifically stated that wake sports are not a normal use. This is the considered legal position of the agency with authority to interpret its own statute — a position entitled to substantial deference.
- The 'dangerous precedent' argument proves too much. If any technological evolution of a prior activity automatically inherits 'normal use' status, then nothing could ever be regulated as new — every new technology can be characterized as an evolution. The statute's purpose was to protect traditional uses of public waters; ballasted wake boats are not a continuation of waterskiing any more than personal submarines would be a continuation of swimming.

Rebuttal 6: Lack of Reporting Under the 2024 Rule Does Not Prove That The Rules Are Working

Opposition Claim

Only about 5 statewide complaints were filed under the 2024 rule, none substantiated as violations. This proves the existing rules are working, and further restriction is unwarranted.

Rebuttal

- Low violation counts are primarily evidence of inadequate enforcement, not evidence of compliant behavior. As multiple commenters document: there are no dedicated marine patrol officers on most affected lakes; Game Wardens are widely dispersed; there is no mechanism for real-time reporting; and, critically, there is no cell service on many affected lakes. The reporting infrastructure that would generate meaningful compliance data does not exist.
- The public comment record is filled with first-hand accounts of wake boat behavior that, if reported, would constitute violations — boats operating within 200 feet of shore, within 200 feet of swimmers, failing to maintain safe distances. The absence of formal complaints does not mean these incidents did not occur; it means affected lake users did not know how to report them, could not report them in time, or chose to simply leave the water because of the threat to their own safety.
- The DEC itself acknowledged in the pre-rulemaking process that it did not have the expertise and thus did not consider public safety when drafting the 2024 rule. This is not a stable regulatory baseline to defend — it is an acknowledged omission that the proposed rule is designed to correct.

- Environmental impact harms — shoreline erosion, AIS introduction, and loon nest flooding — accumulate over time and may not be visible in a single season's complaint record.

KEY POINT	An under-enforced rule with no reporting infrastructure produces near-zero complaint counts are a result of a weak system, not because the rules are adequate. Zero complaints is not the same as zero harm. The DEC should not allow the absence of formal violation records to be misread as evidence that the 2024 rule is sufficient.

Rebuttal 7: Imperfect Enforceability Is Not A Ground For Refusing To Set A Standard

Opposition Claim

Accurately estimating 500 feet on open water is extremely difficult. The 500-foot buffer could be 'weaponized' by other users positioning themselves inside a wake sports zone. The 3,000-foot run requirement is unmeasurable in practice.

Rebuttal

- Imperfect enforceability is not a ground for refusing to set a standard. Vermont's 200-foot from shore no-wake zone has always required distance estimation, and enforcement officers manage this routinely. Vermont has an app that operators can use to confirm they are operating within the wakesports zone. Once downloaded to a phone, the app can be used even if cell service is not available.
- The 'weaponization' argument — that other users will deliberately position themselves inside a wakespsorts zone to obstruct wake boats — is speculative and implausible as a systemic concern. It describes a deliberate act of harassment that would itself be addressable under existing disorderly conduct or harassment statutes. Designing lake safety rules around edge-case bad actors from either user group would make no rule workable.
- On the 3,000-foot run: GPS-enabled apps already exist that alert wake boat operators when they approach zone boundaries. The WSIA and Woodard Marine are well aware of these products. If the industry is genuinely concerned about helping operators comply, it should be investing in education about such tools, not opposing the underlying standard.
- The argument that higher cognitive load from a 500-foot buffer increases accident risk inverts the safety logic. The reason the 500-foot buffer exists is that other users are at risk from wake boats at distances greater than 200 feet. Asking the party generating the hazard to bear additional cognitive responsibility for monitoring that hazard is appropriate, not dangerous.

Rebuttal 8: Acknowledging The Importance of The Home Lake Rule Does Not Discredit All The Beneficial Proposed Rule Amendments

Opposition Claim

Removing the Home Lake Rule and replacing it with only hot-water decontamination requirements will increase, not decrease, AIS risk because decontamination infrastructure does not yet exist. Both sides support retaining the Home Lake Rule.

Rebuttal

- The consensus around retaining the Home Lake Rule is significant. If both the lake protection community and the responsible wake boat community agree that the Home Lake Rule should be retained, the DEC should give serious consideration to retaining it and implementing it while proceeding with the acreage, buffer, and run-length changes.
- The proposed decontamination requirement without available infrastructure is a valid practical concern. The DEC should consider either: (a) retaining and implementing the Home Lake Rule until decontamination infrastructure is in place, or (b) adopting the Home Lake Rule as the primary protection while establishing a phased decontamination framework with defined milestones.
- Importantly, agreeing that the Home Lake Rule should be retained does not validate any other opposition argument. The opponents are using this one area of legitimate concern as a rhetorical wedge to discredit the entire proposed rule. The DEC can accept the Home Lake Rule critique and still adopt all other proposed changes.

RECOMMENDATION	The DEC should consider retaining AND IMPLEMENTING the Home Lake Rule or adopting a hybrid provision (Home Lake Rule + decontamination requirement for any inter-lake travel) as a modification to the proposed rule. This would remove the opposition's strongest argument while preserving all other protective provisions.

Rebuttal 9: Education And Regulation Are Not Mutually Exclusive And Do Not Need To Proceed Sequentially

Opposition Claim

The 2024 rules have not been incorporated into Vermont boating safety education materials. Rules should not be expanded until existing rules are fully understood by the boating public.

Rebuttal

- Education and regulation are not mutually exclusive and do not need to proceed sequentially. The DEC can and should simultaneously (a) adopt updated rules and (b) require that those rules be incorporated into boating education materials. The record identifies a specific failure by the State Police and boating safety course providers to update curricula — this is an administrative problem with a straightforward fix, not a reason to delay protective regulation.

- Inadequate education about existing rules is an argument for better education, not against strengthening the rules. The logic of 'don't add new rules until people follow the old ones' would permanently freeze any regulatory framework at its current, acknowledged-insufficient level.
- The Woodard family's documentation that boating safety curricula have not been updated is a legitimate and useful finding that the DEC must remedy. However, it is properly characterized as a compliance failure by course providers, not as evidence that the proposed rule changes are unwarranted.
- The proposed rule changes, if adopted, provide the clearest possible incentive for course providers to update their materials: new, more restrictive rules create new legal exposure for operators who don't know them. This is how regulatory frameworks generate educational compliance, not the reverse.

Rebuttal 10: The Economic Benefits Of Protective Regulation Far Outweigh The Potential Impact On One Specific Product Category

Opposition Claim

Woodard Marine reports a 75% decline in wake boat sales, $136,500 in lost Vermont Sales and Use Tax from a single dealer in 2024–2025, and a 38.89% decline in Vermont wake boat registrations versus 14% nationally.

Rebuttal

- Vermont is not obligated to calibrate lake protection rules to the sales performance of a single product category. The economic value of Vermont's lakes — to tourism, property values, recreation, fishing, and the overall identity of Vermont as a destination — vastly exceeds the economic value of wake boat sales. The economic analysis included in DEC documents during the rulemaking process indicates that the benefits of regulation outweigh the costs by ten to one. The DEC's statutory mandate is to protect natural resources and public health, not to optimize marine dealership revenues.
- Vermont DMV registration data showing a 38.89% decline versus a 14% national decline may reflect the fact that Vermont's 2024 rule was, as the opposition itself notes, already one of the most restrictive in the country. If Vermont is a less attractive market for wake boats than states with no rules, that is the intended policy outcome, not an unintended economic harm.
- Lost sales tax revenue from wake boat sales is a narrow calculation that ignores the full economic picture. The DEC's own record includes references to: $850,000 spent on Lake Morey alum treatment for cyanobacteria; decades of lake association spending on AIS prevention; projected costs of AIS remediation; and the economic value of the eco-tourism, fishing, camp, and recreation industries that depend on clean, quiet lakes.
- The opposition’s claim that no marine dealership was contacted during the economic impact analysis is not true. In the development of the economic analysis that accompanied the RWVL 2022 petition, which was used by the ANR to support the existing rule, data were collected, and interviews were conducted with several Vermont marine dealers. These include Umiak outfitters in Stowe, Vermont's largest purveyor of kayaks and other small craft, and Small Boat Exchange in Shelburne, which deals in medium-sized boats. The owner of Umiak Outfitters submitted a written comment supporting the currently proposed rule amendments. In any event, economic

impact analysis gaps are grounds for supplementing the record, not for abandoning proposed protective rules.

KEY POINT	Economic impacts on a single industry sector must be weighed against the broader economic value of Vermont's lake-based economy and the potentially catastrophic and irreversible costs of AIS introduction or long-term lake degradation. The record supports the conclusion that this balance favors protective regulation.

Rebuttal 11: Sections 3.7 and 4.3 Address The Agency's Need For Flexibility And Do Not Create Unchecked Administrative Discretion

Opposition Claim

The provisions allowing the ANR Secretary to add or remove lakes from eligibility based on management projects or 'other good cause' lack defined time limits, evidentiary standards, or automatic expiration — effectively enabling back-door bans without formal rulemaking.

Rebuttal

- Regulatory agencies routinely need administrative flexibility to respond to changed conditions, emergency situations, or new scientific findings between formal rulemaking cycles. Sections 3.7 and 4.3 provide a necessary management tool, particularly for lakes with cyanobacteria events, AIS outbreaks, or loon nesting crises requiring rapid response.
- That said, the opposition's concern about open-ended discretion without defined guardrails has merit and is a legitimate drafting consideration. The DEC should consider adding: defined maximum suspension durations, written scientific findings requirements, and a reinstatement process. This is a refinement, not a reason to abandon the provision.
- The 'back door ban' characterization is not supported by the statutory framework. Any permanent restriction on a lake's eligibility that exceeds the scope of Section 3.7 would require a formal rulemaking proceeding subject to public comment — the same process that produced this rule. The administrative flexibility provisions do not bypass this requirement for permanent changes.
- Multiple form-letter opposition submissions propose specific safeguards for Section 3.7: maximum 6-month suspensions, written findings, and automatic expiration. These are reasonable proposals that the DEC should evaluate and potentially adopt as rule text refinements. Accepting these refinements does not require rejecting the substance of the proposed rule changes.

Additional Observations From the Public Comments

The Blue Ribbon Coalition Submissions

The email comment record includes a significant volume of identical or near-identical form-letter submissions organized through the Blue Ribbon Coalition (BRC), a national motorized recreation

advocacy organization based outside Vermont. Many signatories are from California, Utah, Idaho, and other states with no direct Vermont lake connection.

- The DEC should weigh these out-of-state, template-based submissions less heavily than the substantive Vermont-based comments filed by residents, lake associations, camp operators, loon biologists, and community members who are directly affected by the proposed rule.
- The BRC submissions represent an organized national campaign, not the authentic voice of Vermont lake communities. The public trust doctrine — which underlies Vermont's UPW framework — is specifically concerned with managing Vermont's waters for the benefit of Vermont's public. Out-of-state advocacy campaign submissions do not speak to that interest.

The Pattern of Opposition Argument

Across all opposition arguments, a consistent pattern emerges: the opposition raises a procedural, mathematical, or scientific precision objection to deflect from the underlying factual record. These objections are important to evaluate carefully — but they should not obscure the evidentiary weight of what the record actually shows:

- Hundreds of Vermont lake users, camp operators, municipal officials, conservation organizations, and scientists have documented direct, first-hand experience of wake boat impacts to safety, shorelines and property, wildlife, and water quality.
- Multiple scientific studies — peer-reviewed and otherwise — consistently show that wake boats produce materially greater and more harmful wave energy than conventional boats.
- The lakes being removed from eligibility by the proposed rule are among Vermont's smallest and least capable of absorbing wake boat impacts.
- The consequences of under-regulation — AIS introduction, shoreline erosion, loon nest failure, cyanobacteria blooms triggered by phosphorus resuspension — are permanent or multi-decade in duration. The consequences of over-regulation are that some wake boat operators must use larger, more suitable lakes. These consequences are not symmetrical.

Summary Recommendations

The DEC should proceed with adoption of the proposed rule changes, with the following modifications considered as potential refinements based on the most legitimate opposition arguments:

- **Consider retaining the Home Lake Rule as an AIS protection mechanism, or adopting a hybrid Home Lake + decontamination approach, until statewide decontamination infrastructure is in place. Retaining the Home Lake Rule requires implementing it. That can be done without creating an administrative burden on the DEC. Responsible Wakes for Vermont Lakes is ready to help.**
- **Add defined procedural guardrails to Sections 3.7 and 4.3 (maximum suspension durations, written findings requirements, automatic expiration provisions). Guardrails should allow for reasoned, documented extensions.**
- **Commit to updating Vermont boating safety course curricula to incorporate the 2026 wakesports rules immediately upon adoption.**

None of these refinements requires delaying adoption of the core proposed changes — the 100-acre minimum wakesports zone, 3,000-foot run, 500-foot buffer, and 13-lake eligibility reduction. These protections are justified by the weight of the evidence in the record and are consistent with Vermont's statutory mandate to protect its public waters for the benefit of all Vermonters.

— End of Rebuttal Document —