April 18, 2024

To: Peter LaFlamme
Director, Watershed Management Division
Vermont Department of Environmental Conservation Davis Building — 3rd Floor
One National Life Drive
Montpelier, Vermont 056520-3522

Re: Petition Regarding Wakesports on Lake Fairlee

Dear Director LaFlamme,

Attached is a petition submitted by The Lake Fairlee Association and co-petitioners seeking amendments to the Vermont Use of Public Waters Rules that would prohibit wakesports on Lake Fairlee. The recently adopted statewide rule makes Lake Fairlee eligible for wakesports. Wakesports on Lake Fairlee, and the specific location of the Wake Sports Zone, surrounded by 4 summer camps and the public boat launch, will create significant safety issues for the hundreds of young, inexperienced campers and other longstanding, traditional, normal users of Lake Fairlee. Lake Fairlee is unique in that it is home to 5 summer camps, all of which use the lake extensively. Camps have operated continuously in the current camp locations for over a century.

After you have had a chance to review our petition and accompanying materials, we would welcome the opportunity to address any concerns you may have about the completeness of our submission. Otherwise, we look forward to working through the rulemaking process with you and others within the Department of Environmental Conservation. We anticipate that this will be concluded in time for the requested amendments to take effect for the 2025 Vermont boating season.

Sincerely,

/David Roth/

David Roth
Lake Fairlee Association, Inc.
David Roth., LFA President
c/o Lake Fairlee Association, PO Box 102, Fairlee, VT 05045 lakefairleepetition@gmail.com

cc via email:

Julie Moore, Secretary, Vermont Agency of Natural Resources
Jason Batchelder, Commissioner, Vermont Department of Environmental Conservation
Sgt. Jacob Metayer, Vermont Department of Public Safety, Marine Division
Tracy Borst, Town of Thetford, Vermont, Town Clerk
David Forbes, Town of Thetford Planning Commission
Staci Sargent, Town of W. Fairlee Vermont, Town Clerk
Peggy Burden, Nancy Malmquist, Town of W. Fairlee, Planning Commission
Georgette Wolf-Ludwig, Town of Fairlee, Vermont, Town Clerk
Rob Chapin, Town of Fairlee Planning Commission
Peter Gregory, Two Rivers-Ottauquechee Regional Commission

LAKE FAIRLEE ASSOCIATION

Re: Petition to Amend the Vermont Use of Public Waters Rules

as Filed on April 18, 2024 with
Peter LaFlamme, Director, Watershed Management Division
Vermont Department of Environmental Conservation

CERTIFICATE OF SERVICE

I, David Roth, the undersigned, do hereby certify that the persons and entities listed below have been duly served with a copy of the above-referenced Petition and attachments, either by U.S. mail or electronic means, on April 18, 2024, as required by Section 16 of the Vermont Natural Resources Board Rules of Procedure:

Julie Moore, Secretary, Vermont Agency of Natural Resources julie.moore@vermont.gov

Jason Batchelder, Commissioner, Vermont Department of Environmental Conservation
jason.batchelder@vermont.gov

Sgt. Jacob Metayer, Vermont Department of Public Safety, Marine Division
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Peter Gregory, Two Rivers-Ottauquechee Regional Commission pgregory@trorc.org

/David Roth/
David Roth
Lake Fairlee Association
By: David Roth., LFA President
c/o Lake Fairlee Association, PO Box 102, Fairlee, VT 05045
lakefairleepetition@gmail.com

Lake Fairlee Association

Petition to Agency of Natural Resources to Amend the Vermont Use of Public Waters Rules for Managing Wakesports on Lake Fairlee

April 18, 2024

PETITION

of the Lake Fairlee Association and Co-Petitioners
filed pursuant to 10 V.S.A. § 1424

The Lake Fairlee Association (LFA) and the Co-Petitioners (collectively "Petitioner") hereby petition the Vermont Department of Environmental Conservation (DEC), a department within the Vermont Agency of Natural Resources (ANR), to exercise rulemaking authority in accordance with 10 V.S.A. § 1424 to adopt rules to prohibit Wakesports on Lake Fairlee located in the towns of Thetford, West Fairlee, and Fairlee, Orange County, Vermont.

Petitioner

Lead Petitioner:

Lake Fairlee Association, Inc. (LFA), is a nonprofit association of Lake Fairlee lakeshore property owners, off-lake residents, visitors, and summer camp operators. The LFA was formed to preserve, protect, and enhance the distinctive ecology and natural resources of Lake Fairlee and its watershed.

Normal use activities enjoyed by LFA members and lake visitors include waterskiing, kayaking, canoeing, paddleboarding, sailing, fishing, swimming, nature/wildlife/ecosystem viewing, and exploration. At its March 20, 2024 board meeting, the LFA Board voted 9-1 to submit this petition to the Agency of Natural Resources to amend the UPW Rules to prohibit wakesports on Lake Fairlee. Previously, at the LFA's 2021 annual meeting, only two of the approximately 60 members present expressed opposition to support the Responsible Wakes for Vermont's Lakes petition, which, with its proposed 1000-foot-from-shore wake boat operating distance, would have prohibited wakesports from Lake Fairlee.

- Lake Fairlee Association, David Roth, President
- Lake Fairlee Association, Tom Ward, LFA Wakesports Petition Committee

Email: lakefairleepetition@gmail.com

Co-Petitioners:

- Towns with shorelines on Lake Fairlee:
  - Town of Thetford Selectboard, Sharon Harkay, Chair
  - Town of Fairlee Selectboard, Peter Berger, Vice Chair
  - Town of West Fairlee Selectboard, Delsie Hoyt, Chair

- Organizations owning and operating 5 summer camps on Lake Fairlee:
  - Aloha Foundation, Jason Knowles, Chief Operating Officer
  - Camp Billings, Vicki Smith, Board Member
  - Camp Lochearn, Ron Scott, Administrator

Within this document, "Petitioner" refers to all petitioners – lead and co-petitioners.

Statutory Authority

This Petition, submitted pursuant to 10 V.S.A. §1424, requests DEC to add a lake-specific rule to Appendix A of the Vermont Use of Public Waters Rules (UPW Rules). In accordance with procedural guidance published by DEC, the content requirements governing this petition are as set forth in the Rules of Procedure formerly applicable to petitions filed with the Vermont Natural Resources Board (VNRB). These Rules of Procedure, as well as 10 V.S.A. § 1424, provide that the rulemaking requested by this petition be undertaken in accordance with the Vermont Administrative Procedure Act, 3 V.S.A. § 806 *et seq*.

UPW Rule § 3.8(f) states, "The above prohibition on wakesports (subsection § 3.8.a.) may be modified on a case-by-case basis in response to petitions filed pursuant to 10 V.S.A. § 1424."

Nature and Purpose

Petitioner, together with its supporters, challenges the efficacy of the new UPW Rule § 3.8, "Wakesports" as it applies to Lake Fairlee because the rule fails to address safety concerns, adequately manage use conflicts, and creates economic issues resulting from wakesports activity on Lake Fairlee.

Lake Fairlee is unique among Vermont's small inland lakes and ponds because it hosts five summer camps. The Wake Sports Zone (WSZ) created by UPW Rule § 3.8 is surrounded by 4 of these camps and the public boat ramp. Therefore, wakesports in the WSZ create an especially dangerous condition on Lake Fairlee. Not only do these powerful boats conflict with long-established normal uses on the Lake but they also create unique safety risks for the vast majority of traditional normal users of Lake Fairlee. Wakesports pose a direct threat to the many young campers who, along with their parents, trust their safety to the lake's summer camps. This in turn threatens the economic health of these camps and the economic value these businesses contribute to the area. (Detailed in the Economic Impact Analysis)

Draft Rule

Petitioner requests of ANR that Appendix A of the UPW Rules be amended to adopt, under Lake Fairlee, a new rule (Rule) b., as follows:

"*b. Wakesports are prohibited.*"

The Petitioner's Proposed Rule is Consistent with Existing Vermont Laws.

Prohibiting Wakesports from operating on Lake Fairlee is not only consistent with existing law but also advances specific public policies and objectives of the Vermont rules and statutes that govern the use and protection of our public waters:

1. **Vermont Use of Public Waters Rules.**

   The UPW Rules require ANR to consider the "safety and best interests of both current and future generations" of Vermonters when managing the State's public waters. A recurring theme of the UPW Rules is the avoidance and resolution of conflicting uses of public waters. (e.g., UPW Rules 1.1(c), 2.2 (b), 2.6 (a)).

   - UPW Rules 1.1(a) includes this statement, "The Rules establish a number of general management rules **to protect *normal uses*** on all lakes, ponds, and reservoirs."
   - UPW Rules 2.2(a) states, "In evaluating petitions and associated public comments, the following factors, at a minimum, shall be considered: the size and flow of navigable waters, **the predominant use of adjacent lands**, the depth of the water, **the predominant use of the waters prior to regulation**, the uses for which the water is adaptable, the **availability of fishing, boating, and bathing facilities**, and the scenic beauty and **recreational uses** of the area."
   - UPW Rules 2.2(b) "The public waters ***shall*** be managed so that the various uses may be enjoyed in a reasonable manner, **considering *safety* and the *best interests* of both current and future generations** of citizens of the State and the need to provide an appropriate mix of water-based recreational opportunities on a regional and statewide basis."
   - UPW Rules 2.3 Recreation-related criteria. In evaluating **normal** recreational and other uses, the following uses shall be among those considered: fishing, swimming, boating, waterskiing, fish and wildlife habitat, wildlife observation, the enjoyment of aesthetic values, quiet solitude of the water body, and other water-based activities.
   - UPW Rules 2.6(a) Use conflicts shall be managed in a manner that **provides for all *normal uses to the greatest extent possible*** consistent with the provisions of Section 2.2 of these Rules.
   - A recurring theme of the UPW Rules is the avoidance and resolution of conflicting uses of public waters. (e.g., UPW Rules 1.1(c), 2.2 (b), 2.6 (a)).

     The new wakesport rule recently adopted by ANR fails to address Lake Fairlee's unique situation as home to five distinct summer camps hosting young children engaged in traditional normal-use activities. This petition seeks to remedy deficits in the broader rule as it applies specifically to Lake Fairlee. As such, the rule proposed here addresses the irreconcilable conflict between wakesports and the many traditional normal uses pursued for well over a century on Lake Fairlee by a particularly vulnerable population. Petitioners' new proposed rule honors and gives effect to the State's requirement that Lake Fairlee's public waters continue to be enjoyed "considering safety and the best interests of current and future generations."

2. **Vermont Statutes**

   Many Vermont statutes demonstrate the State's strong commitment to the protection of the water quality of its lakes and ponds and the enjoyment of recreational uses.

   - 10 VSA § 1424 et seq. Use of Public Waters gives The Secretary the authority to establish rules. § (c) The Secretary shall attempt to manage the public waters so that the

various uses may be enjoyed in a reasonable manner, in the best interests of all the citizens of the State. **To the extent possible, the Secretary *shall provide for all normal uses*.** It is significant that this statute, unlike the UPW Rules, omits any requirement that use conflicts be managed using the "least restrictive approach." The term "shall provide" implies safety as a necessary consideration. All normal uses must be provided for in a manner that ensures safety, especially in situations where children are involved. ***Any rule that benefits a specific non-normal use at the expense of the safe practice of normal uses by a vast majority of traditional lake users contradicts the stated intent of the statute***. Petitioners' proposed rule promotes the safe enjoyment of all normal uses on Lake Fairlee. It is a necessary extension of ANR's wakesports rule as it applies to the specific circumstances on Lake Fairlee. The presence of five summer camps and all the children learning to enjoy normal uses on the lake make Lake Fairlee especially vulnerable to safety issues created by the powerful and dangerous wakes central to wakesports.

- Other examples include laws addressing water pollution (10 VSA § 1250 et seq.); laws protecting navigable waters and shorelands (10 VSA § 1421 et seq. and § 1441 et seq.); and laws controlling the further spread of aquatic invasive species (AIS) (10 VSA § 14514 et seq.). Petitioners' proposed rule remains consistent with and serves to promote the many water quality policies underlying these various laws, and enhances protection for Lake Fairlee and its recreational users. Given the well-documented negative impacts of artificially enhanced ocean-sized wakes on water quality, lake, and shoreline ecologies, the spread of aquatic invasive species (AIS), and public safety, Petitioners' proposed rule is essential to the continuing health and safety of Lake Fairlee.

Narrative Summary

1. Wake Sports Zone

The recently concluded ANR rulemaking process resulted in a new UPW Rule (§ 3.8, "Wakesports") that limits the operation of Wake Boats on Vermont's inland lakes to at least 500 feet from shore and in water at least 20 feet deep, provided the area on a given lake meeting those two criteria is at least 50 acres. In addition, the Rule seeks to mitigate the further spread of AIS by requiring wake boats to declare a "Home Lake," and to undergo decontamination of their ballast tanks at a state-certified facility prior to launching in another body of water within Vermont or entering the home lake after use at any other waterbody.

This new Rule results in Lake Fairlee being eligible for wakesports in the Wake Sports Zone (WSZ) shown in Figure 1. Petitioner and other supporters contend that Lake Fairlee has special circumstances warranting the additional protection provided by this petition's proposed rule. On Lake Fairlee, as distinct from other inland lakes and ponds, wakesports pursued even within the confines of a designated WSZ would:

- Directly contravene the UPW Rules requirement that the State of Vermont protect normal uses on Lake Fairlee, UPW Rules, § 1.1(a).
- Directly and irreconcilably conflict with and excessively restrict the long-standing normal uses important not only for the enjoyment and safety of all lake users but also, for the hundreds of campers attending five active summer camps on Lake Fairlee – UPW Rules, § 2.6(a).

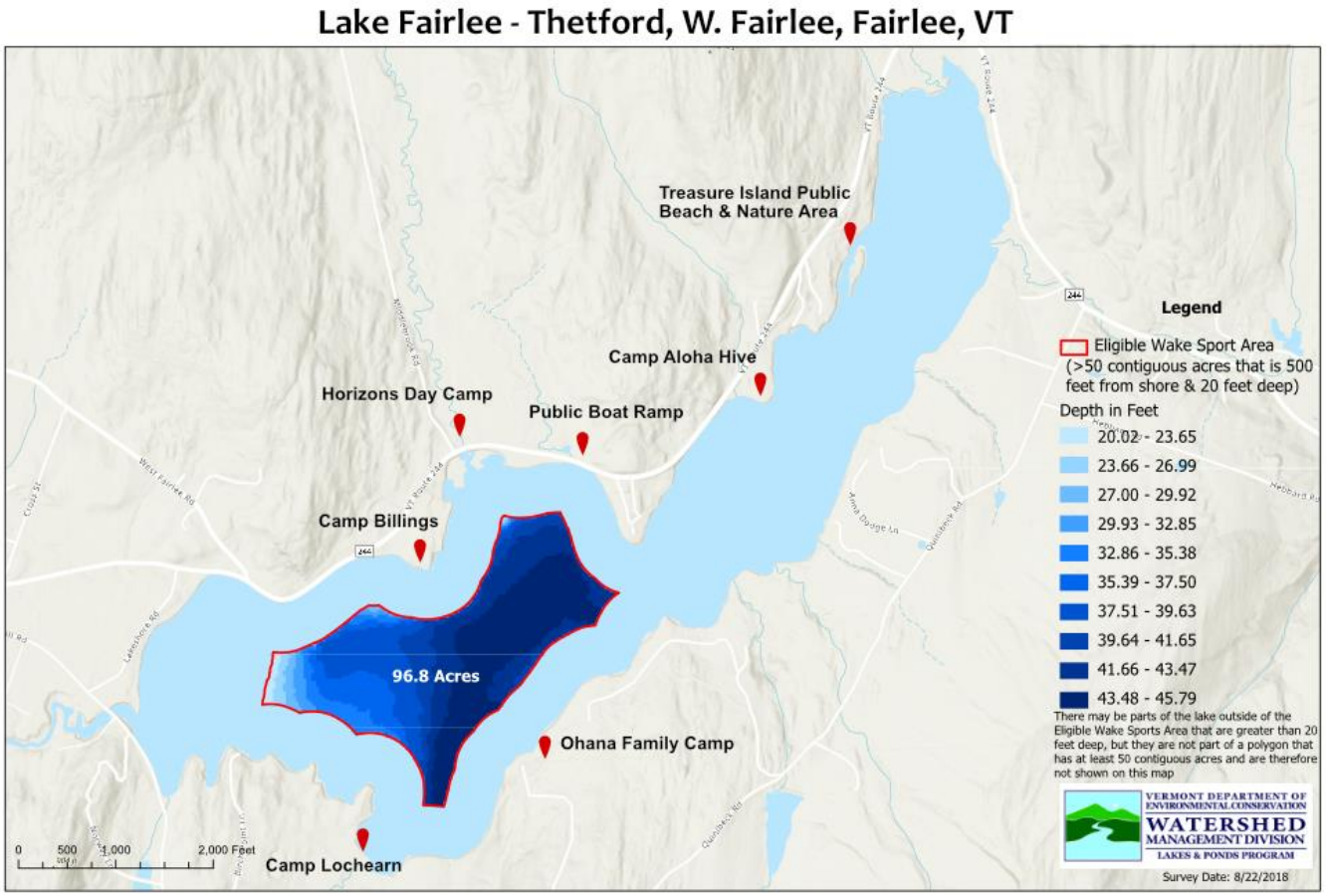

Figure 1: *Lake Fairlee Wake Sports Zone. (Base Map source, Vermont DEC) Summer Camps, Public Boat Launch, Treasure Island Public Beach & Nature Area marked with* 📍

The WSZ is bounded by the shorelines of Thetford and West Fairlee (Appendix B) and as is evident in Figure 1 is surrounded by 4 of the 5 lake summer camps and the public boat ramp. This is a densely used area of the lake. The 4 camps abutting the WSZ have swimming beaches and collectively utilize 130 boats. (The boats of all 5 camps total 155). None of the camp boats are wake boats. In 2023, the boat ramp greeters welcomed 2,449 boats. 47% were fishing boats, 52% other recreation boats, and 1% commercial and government boats. 19 were wake boats. (Appendix C)

2. Lake Fairlee is Unique

Once known as "the camping center of the world." Lake Fairlee is unique among Vermont lakes. (source: *An Historical Guide to Fairlee, Vermont*; prepared by the Fairlee Bicentennial Committee, updated 2022) At one time the lake was home to nine children's camps operating concurrently. Today, Lake Fairlee's five thriving camps host over 1,800 campers and 300 staff each summer. These camps consist of 3 overnight camps: Camp Billings (founded 1906), Camp Lochearn (founded 1915), and Aloha Hive (founded 1915); one day camp: Horizon Day Camp (on the site of Camp Wyoda, founded 1916); and one family camp: Ohana (on the site of the former Shanty Shane/Lake Fairlee Camps, founded 1910). Despite the tremendous growth of modern specialized summer camps focusing narrowly on athletics, STEM, performing arts, etc., the Lake Fairlee camps continue to flourish as generalists,

focusing on traditional land and water camp activities including swimming, kayaking, canoeing, rowing, sailing, water skiing, fishing, wilderness skills, arts and crafts, horseback riding, etc. Traditional water activities ("normal uses") have been offered since the camps' founding. Not one of the five camps currently owns, nor according to camp representatives, plans to acquire a wake boat.

Paddling and sailing, traditional uses enjoyed since the first Lake Fairlee camp was founded in 1906
(Photo: Town of Fairlee Historical Society)

Due to Lake Fairlee's particular geomorphology, the ANR rule creates a WSZ situated in the worst possible location vis-à-vis the five summer camps. The WSZ sits right in the middle of a section of the lake surrounded by four out of the five camps creating especially unsafe conditions for the campers and staff. (Figure 1 illustrates the location of the five active Lake Fairlee camps and the public boat launch immediately surrounding the WSZ.) Children learning traditional water sports including sailing, canoeing, kayaking, and swimming, will be forced into unsafe proximity to giant, powerful boats creating ocean-sized surfing waves. No reasonable observer would conclude that situating a WSZ in this location is safe, least of all for inexperienced young campers or other lake users.

Wakesports on Lake Fairlee have already caused problems – dangerous injury, capsizing, and boat swamping (Instances of Conflicts). This petition seeks to address the particular safety concerns created by the presence of so many young campers learning new skills in and around the newly established Lake Fairlee WSZ.

Campers enjoying paddling, sailing, and waterskiing in the middle of the newly designated WSZ
(Photo: Tom Ward)

Lake Fairlee's summer camps are an important economic driver in the area with a combined annual revenue of over $6,000,000 and a payroll of approximately $700,000. Combined, these camps contribute over $300,000 in property taxes to the surrounding towns. These figures do not include the contribution resulting from parents staying in local hotels, dining out, and enjoying recreation when they drop off and pick up campers. Allowing wakesports risks camper safety and health and could result in economic damage to the area.

3. Camp Activities

Activities at the Lake Fairlee camps include many traditional watersports: kayaking, canoeing, sailing, swimming, water skiing, fishing, etc. Wakesports are not offered. Collectively the camps have a fleet of 155 boats. Since the WSZ is situated offshore from four of the camps (Billings, Horizon, Lochearn, and Ohana family camp), these summer activities are under considerable threat from wakesport activity. It will be challenging for

(Photo: Camp Lochearn)

campers to enjoy watersports while trying to handle giant waves emanating from the WSZ, located right where the campers need to be. Historically, for more than a century, campers and counselors never worried about having to maneuver through ocean-sized waves. Giant waves are especially dangerous for the many vulnerable people enjoying the camp experience – both young, inexperienced campers (many campers are as young as five years old) and old (Ohana, the family camp, enjoys campers into their 90s.)

The new statewide ANR wakesport rule neglects to consider the safety of other lake users sharing the water with wake boats. While the rule requires that wake boats operate 500 feet from shore, the rule only requires wake boats to operate 200 feet from other lake users. This short distance does not provide adequate protection from the huge waves generated by wakesport activities. Because of this shortcoming in the statewide rule, the huge waves campers will encounter while in the WSZ will be considerably higher (Figure 3, Figure 7), containing more energy and more power (Table 2) than those encountered at the shoreline.

Small boats can easily capsize when hit by giant waves. This creates a new and different risk for those responsible for supervising vulnerable campers, while also interfering with campers' relaxed enjoyment of lake activities. Instead of concentrating on learning their sport and building confidence, campers must be vigilant, watching for waves and maneuvering quickly to place their boats in the safest orientation to the waves. Children are likely to forget to maintain vigilance or fail to react quickly enough, and accidents are likely to occur.

(Photo: Camp Lochearn)

Sailboats need to utilize the entire lake, including the center (the WSZ) to catch the best possible wind and follow it safely. Sailboats are less maneuverable than other watercraft. Small sailboats are prone to capsize quickly and easily, often with no warning, especially when captained by inexperienced sailors. Even one wake boat operating in the WSZ will

(Photo: Camp Lochearn)

significantly increase the safety risk for novice sailors, likely resulting in curtailed sailing options for campers.

Water skiers prefer flat water, and young campers just learning to ski positively require it. Giant enhanced waves created by wakesports significantly negatively impact campers' ability, and desire to ski. The 200-foot requirement will not protect them. If campers are already out skiing when a wake boat arrives, the resulting huge, enhanced waves increase the risk of falls and possible injury.

(Photo: Camp Lochearn)

Swimming also becomes less safe. Campers enjoying long-distance swimming (including the traditional annual swims around the lake) could encounter huge mid-lake wake boat waves. These waves often approach silently, surprising swimmers. Even nearshore swimmers are likely to encounter larger waves than those to which they are accustomed.

UPW Rules § 3.8 Fails to Protect Normal Users

A major shortcoming of the new, statewide wakesport rule is its lack of attention to public safety. ANR acknowledged during the rulemaking process that it was unable to fully consider whether the new rule would provide adequate protection for public safety. ANR deferred issues of public safety for later consideration, preferring to approach safety issues on a lake-by-lake basis.

Lake Fairlee provides the strongest example of a Vermont lake in need of greater protection for traditional lake users pursuing normal uses.

The Vermont Agency of Natural Resources, Use of Public Waters Rules, Responsiveness Summary for Wakeboat Rulemaking, January 2024, Response 76 states, "As the comment notes, additional rulemaking may be approached on a waterbody-specific basis. The Agency anticipates receiving and responding to several waterbody-specific wake boat rulemaking petitions. ***The Agency expects that such petitions will demand particular focus on aquatic recreation and safety planning—areas where current Agency staff does not have deep professional experience***. Therefore, in preparation for consideration of waterbody-specific petitions, the Agency will explore retaining services of an external consultants with relevant expertise."

LCAR – 02-15-2024 Meeting starting at minute 14:59, Katelyn Ellerman, ANR Staff Attorney, "We acknowledge that ***the staff doesn't have the fine level expertise on safety and recreation conflict*** that might make this go even further, in particular identifying specific criteria at the intersection of conflicting uses."

1. The UPW Rules ***require*** ANR to consider the "safety and best interests of both current and future generations" of Vermonters when managing the State's public waters.
    - As mentioned, ANR acknowledges that the development of the new UPW Rules § 3.8 did not take into consideration whether the rule is adequate to provide safe enjoyment of existing normal uses on Vermont's inland lakes despite this consideration being

required. UPW Rules 1.1(a) includes this sentence: "The Rules establish a number of general management rules **to protect *normal* uses** on all lakes, ponds, and reservoirs."

- UPW Rules Definition: §5.6 "Normal use" means any lawful use of any specific body of public water that occurred on a regular, frequent, and consistent basis prior to January 1, 1993.
- Wakesports are not a "normal use" as they did not occur on a regular, frequent, and consistent basis prior to January 1, 1993.
- Jason Batchelder, DEC Commissioner confirmed that wakesports are not a normal use during the February 15, 2024, LCAR hearing on ANR's proposed statewide rule to manage wakesports. During the hearing, the Commissioner stated, ***"Boats operating in wakesports mode to our view do not meet the definition under UPW Rules of a normal use."*** (LCAR Meeting 02-15-2024 min. 10:49)

2. UPW Rules 2.2(a) states, "In evaluating petitions and associated public comments, the following factors, at a minimum, shall be considered: the size and flow of navigable waters, **the predominant use of adjacent lands**, the depth of the water, **the predominant use of the waters prior to regulation**, the uses for which the water is adaptable, the **availability of fishing, boating, and bathing facilities**, and the scenic beauty and **recreational uses** of the area."

- ANR must recognize the unique features present at Lake Fairlee and the distinctive risks wakesports pose. Four out of five summer camps surround the WSZ. This creates a high density of young, often inexperienced children pursuing lake uses recognized by the state as "normal" and therefore protected: swimming, kayaking, canoeing, sailing, waterskiing, etc.

1. **Predominant use of adjacent lands:** 45% of the shoreline adjacent to the Lake Fairlee WSZ is summer camp land. For well over a century, summer camps have been a unique and valued feature of Lake Fairlee. The lake's first summer camp, Camp Billings, founded in 1906, is still operating today. Public land along RT 244 and the public boat ramp comprise 8% of the shoreline adjacent to the WSZ. The remaining 47% is comprised of privately owned property (See Lake Frontage by Property Type Map, Appendix D).
2. **Predominant use of the waters prior to regulation:** For well over a century, the newly created WSZ area has been heavily used for normal uses by locals, visitors, and campers. The camps on Lake Fairlee own and utilize 155 boats for primary camp activities. These boats include ski boats (3) and dozens of canoes, kayaks, paddleboards, and sailboats. Of these boats, 130 are owned by the camps directly adjacent to the WSZ. None of the camps own a wake boat, nor do they plan to acquire one. Additionally, campers swim in the areas adjacent to the WSZ and on certain occasions within the WSZ itself.

   In 2023, the public boat ramp greeters welcomed 2,449 boats: 47% were fishing boats, 52% other recreation boats, and 1% commercial and government vessels. 19 wake boats (1% of all boats) entered the lake in 2023. (See Appendix C for full breakout by boat type.)

   At this time, there are two wake boats owned by seasonal property owners on Lake Fairlee. This number is expected to rise as a result of the widely recognized trend toward rapid increase in wake boat sales as a growing segment of the motorboat industry.

3. UPW Rules 2.2(b) states, "The public waters ***shall*** be managed so that the various uses may be enjoyed in a reasonable manner, **considering *safety* and the *best interests* of both current and future generations** of citizens of the State and the need to provide an appropriate mix of water-based recreational opportunities on a regional and statewide basis."
    - UPW Rules 2.3 Recreation-related criteria. In evaluating **normal** recreational and other uses, the following uses shall be among those considered: fishing, swimming, boating, waterskiing, fish and wildlife habitat, wildlife observation, the enjoyment of aesthetic values, quiet solitude of the water body, and other water-based activities.
    - These are the activities enjoyed for over a century by residents and heavily by campers on Lake Fairlee. Summer camps provide an environment in which users pursue these traditional activities more frequently than most residents. The presence of so many campers on the lake distinguishes Lake Fairlee, creating a situation unique among Vermont's many lakes and ponds.
    - It therefore follows that protection of normal uses in situations where a non-normal use creates issues of public safety, becomes not only reasonable but a *required consideration*.
4. UPW Rules 2.6(a) states, "Use conflicts shall be managed in a manner that **provides for all normal uses *to the greatest extent possible*** consistent with the provisions of Section 2.2 of these Rules."
    - Situating a WSZ – and consequently inviting wakesport activity – within an area surrounded by four previously existing summer camps with a high concentration of inexperienced children pursuing traditional, normal uses, (including waterskiing and sailing both of which require the use of the WSZ) makes no sense. It creates a dangerous environment for children. It changes the essence and character of the lake and dramatically curtails safe access to a significant portion of the lake for normal uses. ***This WSZ does not provide for all normal uses to the greatest extent possible.***

Justification for Prohibiting Wakesports on Lake Fairlee

Safety

Wakesports are a new and different breed of activity presenting numerous challenges for Vermont lakes and ponds and their users. Wake boats are specifically designed to artificially create large and powerful wakes. They operate in a novel "bow up" orientation, creating unexpected blind spots for drivers as they plow through the water, potentially oblivious to those right in front of them, presenting unique safety issues that result in fear and avoidance by normal users.

Because of Lake Fairlee's particular geomorphology, its WSZ ended up right in the "front yard" of the lake's most heavily used, densely populated area. Four summer camps and the public boat ramp surround Lake Fairlee's WSZ. Concentrating wakesports in this particular area – where young, inexperienced children learn to sail, kayak, canoe, and water ski – creates an especially dangerous situation. This is an accident waiting to happen. For over a century, Lake Fairlee has been safely enjoyed by campers and off-lake boaters launching from the public boat ramp. Encouraging wakesports to concentrate in this one particular area significantly impacts public safety on the lake and invites safety issues ignored by ANR in its drafting of the new statewide wakesport rule.

As previously mentioned, the new UPW Rule § 3.8 requires wake boats operating in wakesport mode to remain at least 500 feet from shore and to operate only in water at least 20 feet deep. This rule was implemented because ANR deemed the existing 200-foot distance required by the Shoreline Safety Zone rule to be inadequate. However, the new rule still allows wakesports to

occur within only 200 feet of marked swim areas and other vessels, including canoes, kayaks, paddleboards, water skiers, swimmers, etc. This aspect of the new rule creates unsafe conditions for normal users, particularly those vulnerable because of age or inexperience in the water.

Safety concerns include:

- Injury or drowning resulting from swamping and capsizing of traditional boats. Many of the normal-use boats on Lake Fairlee are used by young, inexperienced campers.
- Boat collisions or swimmers being run over as a result of obstructed lines of sight resulting from wake boats' bow-up orientation, which blocks people and objects and other boats from view.

1. Wake Height

Research shows maximum wake heights 200 feet from wake boats are between 13-16" (sources: Marr J., Riesgraf A., et al., 2022 and Goudey C.A. and Girod L.G., 2015 respectively – see Figure 3 and Table 3), higher than the freeboard of many normal use small craft: kayaks (7"), canoes (10"), small fishing boats (12"), and paddleboards. At 200 feet these wakes could fill a boat or potentially capsize a watercraft resulting in injury or worse. The silently approaching wake could easily knock over a boat passenger or swamp a swimmer. When multiple wake boats operate simultaneously, the waves can join to create a bigger wave (constructive interference, Figure 7). Wake Boat studies to date have only measured the wake height of a single boat. Additionally, even the most current studies used wake boats smaller than those available on the market today (see Table 3). Wake boat size and horsepower have grown consistently for years (see Figure 6). The larger and heavier the boat, the greater the potential displacement. The greater the displacement, the larger the wake. The larger the wake, the greater the safety hazard.

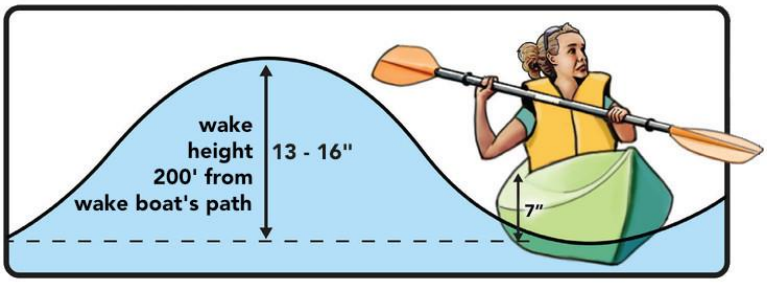

Figure 2: *Wave freeboard height normal use craft vs wake height at 200 feet*

Marr, St. Anthony Falls Laboratory (SAFL) Wave Study

A Field Study of Maximum Wave Height, Total Wave Energy, and Maximum Wave Power Produced by Four Recreational Boats on a Freshwater Lake : Marr J., Riesgraf A., et al., 2022

Of the many studies measuring wave train characteristics, the most relevant to this petition is the University of Minnesota St. Anthony Falls Laboratory (SAFL) Wake Boat Wave Study. Given the "traditional aspects" of the UPW Rules, it is appropriate to compare wake boats and traditional motorboats used for skiing or tubing in their typical recreation conditions: wake boats in wakesurfing mode at 10 mph and traditional motorboats used for skiing or tube towing and operating at approximately 20 mph. These are the conditions used in the SAFL Wave Study.

Figure 3 compares the wake heights created by two types of boats, ski boats, and wake boats operating in their designed conditions. The two ski boats (Larson LXI 210 and Malibu Response LX) are operating in what the study denotes as "Condition 2," a speed of 20 mph. The two wake boats (2019 Malibu VLX Wakesetter and 2019 Malibu MXZ Wakesetter) are operating in typical wake surfing conditions denoted as "Condition 1a," a speed of 11 mph with ballast tanks 100% filled.

The new UPW Rule § 3.8 does not modify the 200-foot distance boats are currently required to stay away from other boats or swimmers. Rather it allows wakesports to occur only 200 feet from other craft or swimmers. In this study, at 200 feet, wake boat waves were measured as high as 13" vs only 6" for ski boats at 200 feet. Wakesports occurring 200 feet from normal users is a hazardous distance.

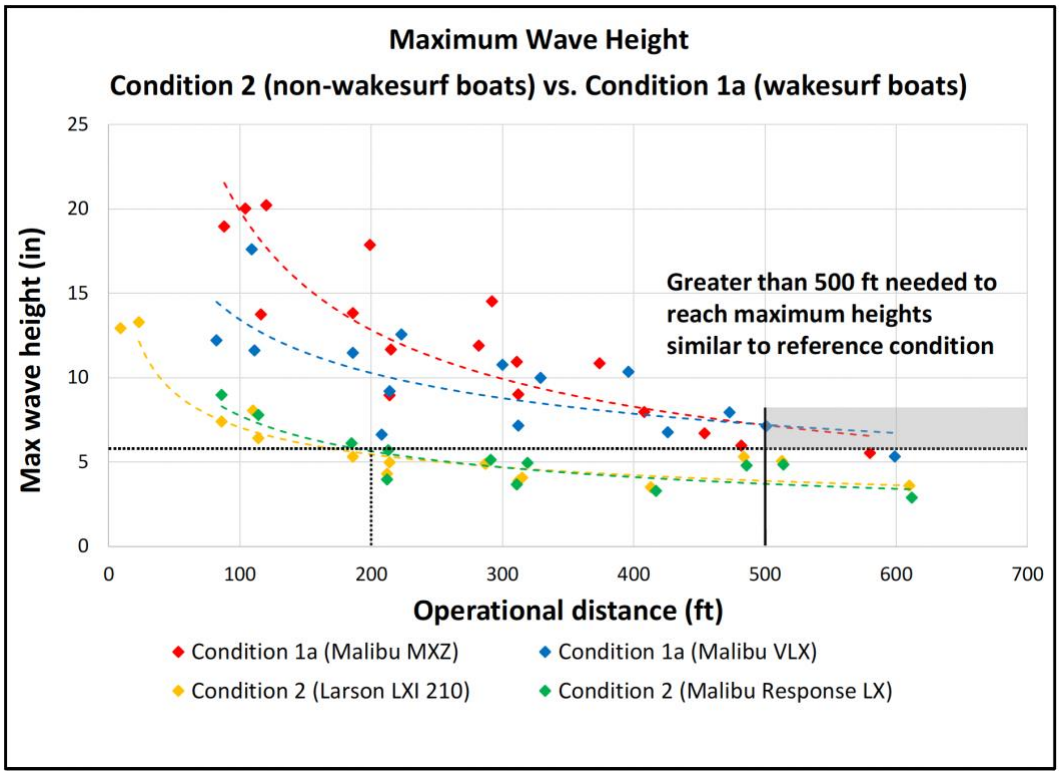

Figure 3: *Maximum wave height (in inches) comparisons of wake boats (Malibu MXZ and Malibu VLX) versus non-wakesurf tow boats (Larson LXI and Malibu Response LX) from the SAFL Study (Marr J., Riesgraf A., et al., 2022). Condition 2 is at 20 mph and Condition 1a is at 10 mph.*

The authors of the study state that "***Greater than*** 500 ft needed to reach maximum heights similar to the reference condition." (The reference condition is the ski boat wave height at 200 feet.) Wakesport waves must travel ***at least*** 500 feet to approximate the ski boats' 6-inch wave at 200 feet. ANR deems 500 feet to be adequate for shoreline and ecological protection. But, how much further than 500 feet do these waves need to travel to reach a ski boat's 6" wave?

The solid lines in Figure 4 represent "best fit" formulas of the form $H = Ax{-}B$ commonly used to characterize the decrease in the wave height H over distance x for the four boats studied. A and B are parameters determined from the data. The resulting formulas and associated curves help to distinguish the different boats amid scatter in the data and provide a means of predicting behavior at other distances. Figure 4 shows four curves and their formulas to guide the eye to illustrate the wave attenuation comparisons.

Figure 4 illustrates that it takes 981 feet and 756 feet for the two wake boats included in the SAFL Wave Study to achieve the 6" wave height of waves generated by traditional ski boats 200 ft from shore – distances far surpassing the 200-foot distance allowed to operate from other boats in the new UPW Rule § 3.8. Youthful campers and other normal users on the heavily used waters of Lake Fairlee are not adequately protected by the new wakesport rule.

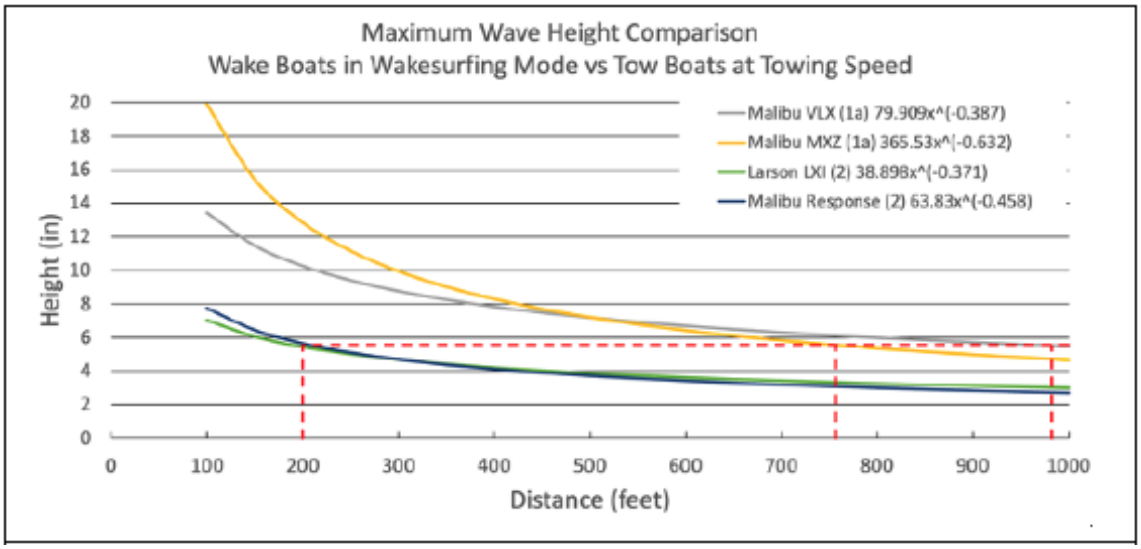

Figure 4: *Comparison of wave attenuation curves for two wake boats (Malibu VLX and Malibu MXZ) in wakesurfing mode (Condition 1a) compared to two traditional ski boats (Larson LXI and Malibu Response) operating in non-wake boat mode at tow speeds (Condition 2). The dashed vertical red lines indicate that at 981 ft and 756 ft, respectively, the wave heights from the Malibu MXZ and the Malibu VLX are the same as the average heights of the two tow boats (6") at 200 ft, i.e., Vermont's "shoreline safety zone" distance. The formulas for these curves shown in the legend in the upper right are derived from the SAFL Wave Study (Marr J., Riesgraf A., et al., 2022).*

When operated under their most typical operating conditions, wake boats were capable of producing larger wake waves that contained more energy and power than non-wake boats. Similar analyses were performed to determine the equivalent distances for total wave train energy and peak wave train power. These distances are shown along with the wave height distance in Table 1. Energy is the capacity to do physical activities or work, such as running, jumping, etc., while power is defined as the rate at which the energy is transferred, or the

work is completed. The distances required for equivalent energy, well over 600 feet, to be equivalent to that of the ski boats is substantially greater than 200 feet. The distances for equivalent power are over 1000 feet. This demonstrates that a traditional normal-use boat would have to be up to 1300 feet away from a wake boat engaged in wakesports to feel the same level of safety/comfort to which they have become accustomed when being 200 feet from a ski boat.

Table 1: *For each of the two wake boats in SAFL Wave study (Marr J., Riesgraf Al, et al., 2022) the value for the parameters listed in the left-most column derived in the SAFL Wave Study.*

Parameter	Malibu VLX Condition 1a (feet)	Malibu MXZ Condition 1a (feet)
Maximum Wave Height	981	756
Total Wave Train Energy	687	625
Peak Wave Train Power	1316	1013

Another way to compare the wave energy and power between the ski and wake boats is to compare these parameters at 200 feet from the respective boat. Energy is 3-4x higher and Power is 5-7x higher. These metrics indicate that wakesports occurring 200 feet from another boat will have significantly more damaging energy and power than a ski boat operating at a 200-foot distance. (Table 2)

Table 2: *For each of the two wake boats and two ski boats in SAFL Wave study (Marr J., Riesgraf Al, et al., 2022) the value at 200 feet for the parameters listed in the left-most column derived in the SAFL Wave Study.*

Parameter	Malibu VLX Condition 1a (wake boat)	Malibu MXZ Condition 1a (wake boat)	Larson LXI 210 Condition 2 (ski boat)	Malibu Response Condition 2 (ski boat)
Total Wave Energy (J/m)	2730	4000	1000	980
Peak Wave Power (J/m^2)	145	220	30	30

Goudey Characterization of Wake-Sport Wakes Study

Characterization of wake-sport wakes and their potential impact on shorelines. (Goudey C.A. and Girod L.G., 2015)

It is worth noting that this study, contracted by the WSIA industry group, supports the conclusion that wake waves are much higher than those of traditional ski boats. The relevant data in Table 3 are in the Deep Water rows. At the study's deep-water test site, all boat runs were in depths greater than 22 feet. This approximates the depth conditions in a WSZ which must be at least 20 feet deep. At 200 feet from the wake boat track, the wake height is 15.89 inches – more than double the 7.19" wave height from a ski boat cruising in deep water. Not shown in this table is that the height of the wake in this study was only 26.5" at the boat. Today's wake boats advertise wakes of 36-48" and more; the measurements in the below table are conservative. For a more detailed analysis of the Goudey data visit link.

Table 3: *Goudey WSIA Industry Study Wave Height Comparison at 200 feet*

		Maximum wave height (in)			
Distance from track (FT)		0	100	200	300
Cruising	Shallow	15.42	10.16	8.83	5.09
Cruising	Deep	14.54	9.95	7.19	6.32
Wakesurf	Shallow	27.83	11.75	9.63	5.91
Wakesurf	Deep	26.14	19.88	15.89	12.92

In summary, the wave height, power, and energy created by wake boats' enhanced wakes create hazardous conditions for other normal lake uses. A single boat, even when operating in the middle of Lake Fairlee's WSZ, dominates the middle of the lake making it a virtual "Exclusion Zone," unsafe and unenjoyable for normal uses. See Appendix F for illustrations of this impact.

2. Obstructed Line of Sight

Increasing water displacement increases the wake size. Ballast tanks, most commonly filled with thousands of pounds of water, help place the boat in a bow up, stern down position. This orientation makes it challenging for the boat operator to see in front of the boat increasing the likelihood of a collision with other lake users.

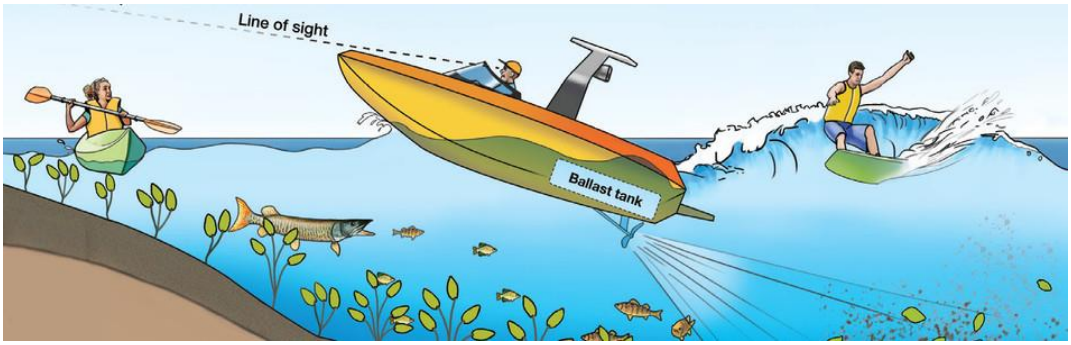

Figure 5: *Bow-up orientation of the wake boat creates line-of-sight vision issues*

3. Water Quality, Health Concerns/Cyanobacteria Blooms

Enforcement remains a significant concern for compliance with the new wakesport rule. Lake Fairlee has an 11.4-acre area less than 20 feet deep to the west of and adjacent to the WSZ; this shallow area begins well over 500 feet from shore. Last summer this was a target

area for diver-assisted suction harvesting (DASH) (See Appendix E for details.) Distinguishing this shallow area from the WSZ will likely prove difficult for wake boat operators. Boats engaged in wakesports entering this area will fragment and spread milfoil and stir up bottom sediments. Additional milfoil spreading will increase the already high cost of milfoil remediation. Sediment suspension, specifically phosphorus, can increase the likelihood of cyanobacteria blooms and related health risks; this could become a major problem. In recent summers, nearby Lake Morey has seen significant cyanobacteria blooms requiring the closing of the town beach and the issuing of health warnings to stay off the lake. A similar occurrence on Lake Fairlee would result in the loss of access to the lake for swimming, and most, if not all, normal uses. While inconvenient for most lake users, this could be devastating to the summer camps. Once again, it is important for ANR to distinguish Lake Fairlee from other lakes in Vermont. The presence of five summer camps on Lake Fairlee makes this particular lake and its surrounding towns more vulnerable to economic impact from water quality degradation.

4. Precautionary Principle

The precautionary principle requires preventative action. The Wingspread Statement on the Precautionary Principle summarizes the principle this way: "When an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically." Why should action be taken before science tells us what is harmful or what is causing harm? Sometimes waiting for proof is too late. The precautionary principle shifts the responsibility for providing evidence away from victims toward the proponents of an activity. Emphasizing precaution when young, dependent campers are involved becomes not only reasonable but essential.

The Precautionary Principle

This principle was not considered in the drafting of the new UPW Rule § 3.8. The ANR relied heavily on the SAFL Study. This study recommended "…where the boats were compared under their typical operational conditions…" "…operational distances ***greater than 500 ft*** are needed to attenuate the wake wave characteristics of the wakesurf boats to the selected reference condition levels…" The new UPW Rule § 3.8 operational distance of 500 feet from shore not only fails to include an additional precautionary buffer distance greater than the recommendation but is less than the SAFL's recommended "***greater than*** 500 feet" distance.

Additionally, both the SAFL and Goudey studies used wake boats smaller than those currently available on the market. (see Table 3) Furthermore, the impact of multiple wake boats operating at the same time was not studied. (see Figure 7)

To adequately apply the precautionary principle and provide for the "safety and best interests of both current and future generations," ANR must consider the ever-increasing wake boat size and horsepower, the assumption that multiple wake boats may operate at the same time near each other, the distance from other boats, and the predominant normal use and users. This requirement is of utmost importance on Lake Fairlee, because of the unusual presence of so many young children and the corresponding heightened need for their vigilant protection.

A. **Wake boats and their wakes continue to get larger**.

Wakes are a function of the water the boat displaces. The bigger the boat, the bigger the displacement. Figure 6 shows a consistent upward trend in both wake boat dry weight and horsepower over the past 20+ years. Since industry marketing materials continue to hype "bigger is better" themes, there is no reason to believe this trend will stop anytime soon. The size of wakes will continue to increase.

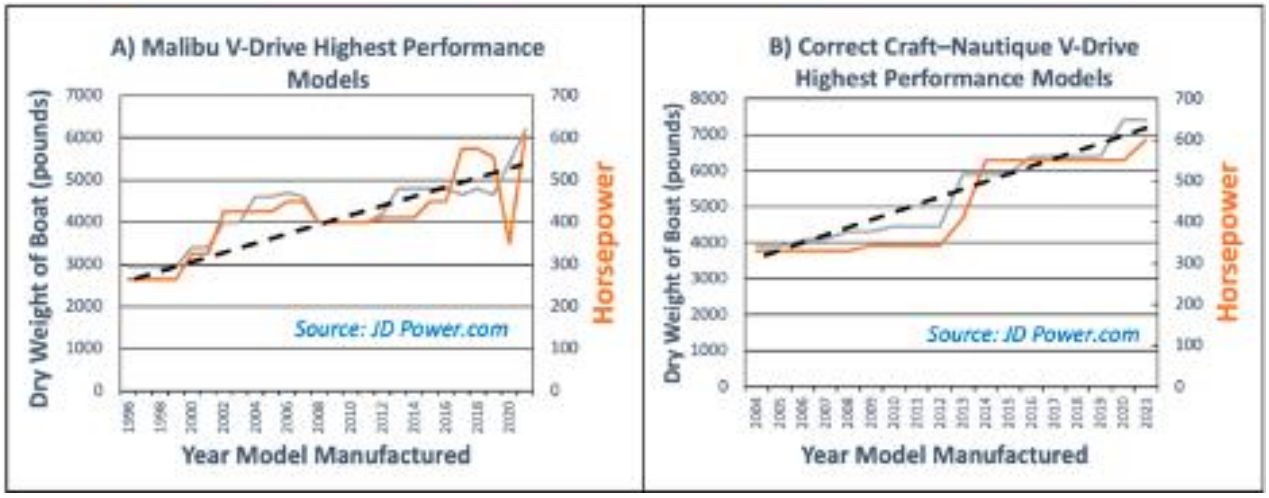

Figure 6: *Annual increase in boat dry weight and horsepower for the Malibu V-drive wake boats and the Correct Craft-Nautique V-drive wake boats from JD Power.com boat data*

Importantly, the studies conducted to date evaluated the impact of wake boats that are smaller than those already on the market today. The SAFL study Malibu boats had 450hp motors and dry weights ranging from 3690 to 4885lbs. Today Malibu sells boats with 600hp motors and dry weights up to 7,000lbs. The Nautique boat used in the Goudy study had a 550hp motor and a dry weight of 5,900lbs. The same model boat today weighs 6,000lbs and boasts a 630hp motor. (Table 3)

Table 3: *Boats used in SAFL and Goudey Studies Compared to wake boats available today: Horsepower, Dry Weight, Ballast, Total Weight*

	Horsepower	Dry Weight	Ballast	Total Weight
SAFL Study:				
2019 Malibu Wakesetter VLX	450hp	4200lbs	3690lbs	7890lbs
2019 Malbu Wakesetter MXZ	450hp	5500lbs	4885lbs	10,385lbs
Sample of available Malibu Wake Boats today:				
2024 Malibu Wakesetter M242	607hp	7,500lbs	4719lbs	12,219lbs
2024 Malibu Wakesetter MXZ	609hp	6000lbs	4885lbs	10,885lbs
2024 Malibu Wakesetter LSV	606hp	7,000lbs	6100lbs	13,100lbs
Goudey Study:				
2015 Nautique G23	550hp	5,900lbs	4250lbs	10,150lbs
Nautique Boat today:				
2024 Nautique G23	630hp	6,000lbs	5100lbs	11,100lbs

B. **Multiple wake boats operating near enough for their wakes to meet create much bigger, more hazardous wakes**.

When multiple wake boats operate in proximity, their waves can overlap and combine to create waves larger than that of a single boat. This phenomenon was not studied in the SAFL or Goudey research.

When the crests of two wakes are in phase, they pass the same point or line at the same time, they become additive and taller (left column of Figure 7, constructive wave interference). If wakes pass out of phase they partially or fully cancel each other (right column in Figure 7, destructive interference). Canceling is not an issue, but constructive interference can create wakes much more powerful than those considered in the SAFL and Goudey studies. Figure 7 illustrates how a 16" wave and a 13" wave combine to create a 29" wave.

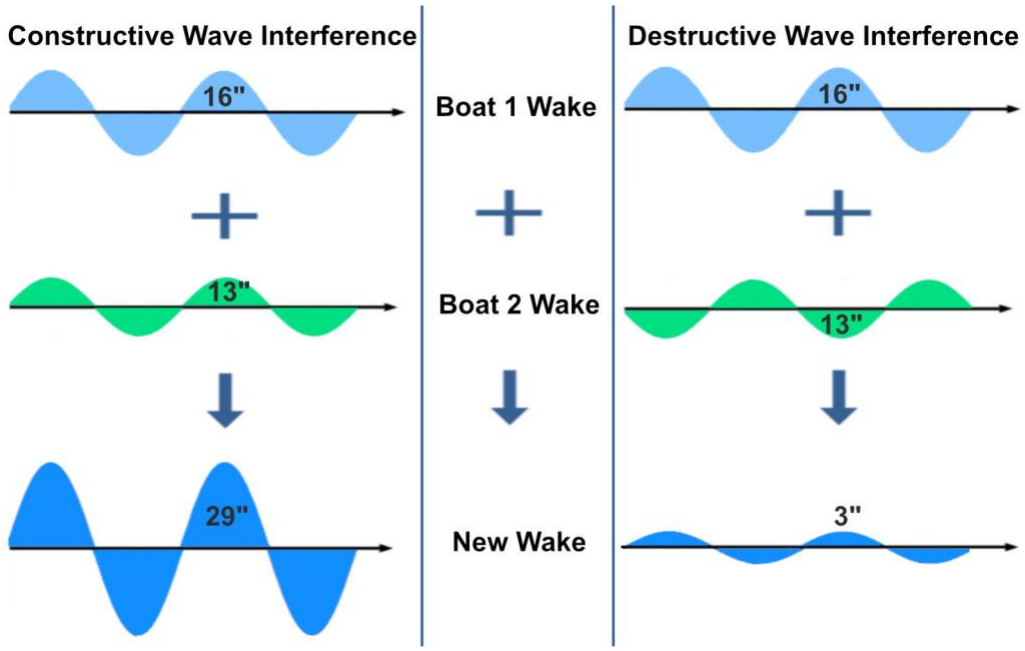

Figure 7: *Wave Interference: When wakes of two boats combine, they can create a larger wave (left-Constructive Interference) or a smaller wave (right-Destructive Interference)*

5. Instances of Conflicts on Lake Fairlee:

Listed below are examples of wake boat conflicts that have already occurred on Lake Fairlee. The wake boats causing these issues are assumed to have operated at least the required 200 feet away when these instances occurred. This list is only a sample of already occurring issues.

A. **Kayaks capsized by a wake boat wake.** During the 2021 4th of July weekend, two sit-on-top kayakers were capsized by wake boat wakes. The wake boat operator didn't stop to assist. It's possible they didn't even know they had caused this safety issue. A nearby property owner saw the incident and came out to assist. Fortunately, no one was injured.

B. **Personal injury from wake boat waves and interference of wakes in lake recreation**. "One Sunday morning, my husband and young daughter were out paddle boarding and swimming. As I attempted to launch my kayak from the same spot on our shoreline that I have launched from for the past eight years, I slipped slightly as the waves from the wake

boat hit the shore. The waves blocked the view of my feet and caused me to further lose my balance. I fell, and I injured my foot, badly. Adding to my frustration was the fact that the boat was well on its way to the south end of the lake as the waves were still, minutes later, hitting the shoreline, bouncing around the swim docks and my husband on his paddle board disrupting our day. My daughter who was practicing her swimming strokes had to stop and bob around every few minutes as these boats passed, and as her mother, I was nervous watching the boats barrel down towards her. It took several minutes for the waves to stop after the boats were long gone. An enjoyable afternoon was ruined as I headed inside to ice my foot which took several days to heal. I write this as the current owner of a Bayliner whose family loves tubing and waterskiing. I am not anti-motorboat. Lake Fairlee is not Lake Champlain. **We need to use our boats—any type of boat—in a context fitting this lake."**

C. **Pontoon boat rocked by wake boat wake. Potential for physical injury to those in other boats**. In 2021, a resident on Lake Fairlee was treating an elderly couple to a pontoon boat ride. A wake boat with a wake surfer was on the water. Unexpectedly, a strong wave crashed into the pontoon boat breaking over the front of the boat that sits about 2 ft above the water and washed along the entire length of the deck. A 93-year-old passenger and his 90-year-old wife had their lower extremities drenched. Had either of these passengers been standing, they most certainly would have been knocked to the deck with the possibility of serious injury.

D. **Young swimmers have been knocked over.** Treasure Island, Thetford's public town beach, is enjoyed by local families. There are often young children swimming and launching kayaks from the beach. Young swimmers have been knocked over in the shallows of Treasure Island's beach.

6. Normal Use Enjoyment

For safety reasons, traditional normal users, tend to avoid areas of the lake where wake boats are operating in wakesport mode. They are afraid of the giant waves and concerned about getting caught off guard. Paddlers, anglers, sailors, and waterskiers are likely to avoid the WSZ, especially when they fear wakesports might be occurring.

Shoreline wind is often lighter, gusty, and less predictable than wind at the center of the lake. Overall, Lake Fairlee is not very wide; a significant portion (the northeast half) of Lake Fairlee is quite narrow. Sailors prefer the southern, wider part of the lake where the WSZ is located. This is where the best winds are available. Sailing a small, easily capsized boat, such as a Sunfish, becomes dangerous when wakesports are occurring nearby. It becomes even more so when an inexperienced camper is learning to sail.

Traditional waterskiers prefer flat water. Wakesports ruin the flat water. Sailors and waterskiers have used the center of Lake Fairlee for decades. Now, they will have to watch for wake boats and will fear skiing in the WSZ when one arrives. Sailing and waterskiing have been central to summer camp activities and general lake users; now, those users risk getting crowded out by a dangerous sport.

History of Protecting the Lake

1. Personal Watercraft Prohibition

In 1998, the Lake Fairlee Association petitioned the Water Resources Board (WRB) to prohibit personal watercraft on Lake Fairlee. The WRB granted the petition and explained its

rationale for the rule. The WRB decision was "…based largely on the conclusion that the use of personal watercraft is not a "normal use" (i.e. established use) on Lake Fairlee and if allowed to become a common use, would result in a level of conflict with other established uses that is not in the public interest." (from the WRB written decision)

2. Aquatic Invasive Species Mitigation

1. **Greeter Program:** Since 2005, the LFA has managed one of Vermont's very successful greeter programs at the Fish & Wildlife boat ramp. The greeters have found and stopped new invasives from entering the lake and prevented Eurasian milfoil, from leaving the lake on exiting boats. The State, local towns, the White River Conservation District, private donations, and the LFA provide much-needed funds for the greeter program.
2. **Milfoil Remediation:** Diver Assisted Suction Harvesting (DASH), Benthic Mats, Herbicide Application: Since the early 1990s, the Lake Fairlee Association has monitored and managed programs to mitigate the lake's milfoil infestation. A variety of programs have been used: monitoring for invasives, removing milfoil (a combination of DASH and herbicide use), and using techniques to suppress milfoil growth (benthic mats).
3. The LFA has spent hundreds of thousands of dollars over the years on these programs. In recent years the Greeter Program and milfoil remediation programs have accounted for about 90% of the LFA's budget.

3. Loon Success

Lake Fairlee has a wonderful Loon nesting track record, successfully producing chicks seven out of the past eight years. This is one of the most successful rates in the state. Loons and loon chicks are loved by many on and off the lake. Last summer, LFA volunteers installed Vermont's first-ever "LoonCam" focused on the loons' floating nesting raft. We had many enthusiastic followers, some watching from as far away as Europe and Asia. The loon nesting raft and loons are monitored by volunteers and overseen by Eric Hanson, Loon Biologist for the Vermont Center for Ecostudies. Loons use the entire lake and can often be seen swimming and feeding in the newly designated WSZ.

4. Water Quality Studies

Lake Fairlee's water quality has been rated "poor" and "stressed" by the state. In 2019 it became apparent that phosphate levels in the lake were rising more rapidly than comparable Vermont lakes. Volunteers from the LFA have actively worked with the ANR to monitor lake health since the LFA was founded. Current activities include participation in the following ANR-sponsored programs:

1. **Lay Monitoring** – Water testing as part of the Lay Monitoring program is performed weekly throughout the summer months and tests for chlorophyll-a, total phosphorus, and Secchi disk transparency.
2. **LaRosa Partnership Tributary Monitoring** – The LaRosa program works to understand the impact of tributary health on the overall health of Lake Fairlee and will help the Water Quality Action Committee recommend and prioritize efforts to mitigate increasing phosphate levels and improve water quality. Volunteers collect and submit water samples for analysis on a bi-weekly basis throughout the summer.
3. **Cyanobacteria Monitoring** – Throughout the summer, the LFA works with the Lake Champlain Committee to perform weekly testing for cyanobacteria. The program helps citizens, along with health, environmental, and recreational officials, assess the safety of

our beaches. It also provides important data to help us further understand when and why blooms occur. Harmful cyanobacteria have not been observed in Lake Fairlee but changes in environmental conditions and lake-stressing activities, such as wakesports, may increase the potential for future blooms.

Economic Impact Analysis

If the Rule requested by this Petition is adopted, significant economic value will be preserved in the Lake Fairlee area. There will be virtually no negative economic impact.

On the other hand, if the requested Rule is not adopted, there would be negative economic impacts on area businesses, the LFA, the lake's summer camps, and local government entities. The most significant impacts would be to (i) summer camps (ii) lakefront property values and relative local tax burdens and (iii) increased AIS mitigation costs.

1. The five camps combined:
    - Create annual revenue over $6M
    - Employ 340 staff members
    - Have an annual payroll of approximately $700,000
    - Contribute over $300,000 total in property taxes to Thetford and W. Fairlee
    - Provide traditional summer camp experiences to over 1,800 campers annually
    - Visiting parents contribute to the local economy by staying in hotels, eating at restaurants, and shopping at local stores.
        - Safety concerns diminishing enjoyment of watersports, a key element of the summer camp experience – kayaking, canoeing, sailing, swimming, water skiing, fishing, etc. – could have major impacts on the camper experience. This, in turn, could result in campers failing to return for a subsequent summer session. Even worse would be an injury to a camper or staff member.
        - Water quality degradation (perhaps even cyanobacteria blooms) would be devastating to all five summer camps on Lake Fairlee and negatively impact other users. Watersports are central to the summer camp experience. If watersports become unsafe or water quality decline means water sports can't take place, Lake Fairlee's summer camps would suffer. Parents would look for alternative camps for their children, which would lead to a steep decline in revenue for all five camps and additional negative economic impact in the area.
        - A reduction in campers will result in fewer parent hotel stays, restaurant visits, and spending at local stores.
2. The increased spread of Eurasian milfoil by wake boats. This is of particular concern since it may prove difficult for wake boat operators to stay out of the shallow area over 500 feet from shore west of the WSZ (Appendix E) and enforcement of watercraft violations remains negligible in Vermont. Additional fragmentation and spread of milfoil would increase the cost of milfoil mitigation for the LFA significantly even if the state assists with the additional cost. Milfoil has been shown to have a significant negative effect on property sales prices. (Olden J.D., and Tamayo M., 2014).
3. A cyanobacterial bloom caused or exacerbated by sediment suspension, including phosphorus, in the shallow area over 500 feet from shore west of the WSZ (Appendix E) could cause health issues. This could impact camp enrollment and decrease lake property values. Decreased lake property values will shift the additional property tax burden to off-lake properties to maintain the required total town tax revenue. (Krysel C., Boyer E., Parson C., and Welle P., 2003); (Voigt B., Lees J., and Erickson J., 2015).

4. Vermont Department of Public Safety. If Wake Boats are allowed to operate on Lake Fairlee, their unusually large wakes would create dangerous conditions for many other recreational uses currently enjoyed on the lake. Such conditions would warrant an increase in visits by public safety enforcement agents — which have historically been minimal — increasing DPS's annual budget.
5. Vermont Department of Environmental Conservation. Due to their large wakes, significant horsepower, and down-facing propellers, the operation of Wake Boats on Lake Fairlee would have impacts on water quality and shoreline ecosystems. Petitioner believes that DEC's annual budget for water quality programs would need to be modestly increased in response to the impacts of Wake Boats.
6. It is worth mentioning that Fairlee Marine, the local boat dealer in Fairlee, Vermont, does not sell wake boats. As noted in his attached letter of support for this petition, the owner of Fairlee Marine does not believe wake boats belong on Lake Fairlee. Prohibiting them on Lake Fairlee will have no impact on this business.

Conclusion

ANR recently created a new statewide rule to regulate wakesports on Vermont's inland lakes and ponds. ANR's rule does not sufficiently protect Lake Fairlee and its users. The lake's unique attributes, including 5 summer camps, clearly justify special protection above and beyond the statewide rule. ANR, by its admission, chose not to prioritize public safety in the development of its statewide rule, preferring instead to defer issues of public safety for consideration on a lake-by-lake basis. ANR invited individual lakes to submit petitions once the statewide rule was finalized and Lake Fairlee provides the perfect example of a lake requiring special consideration under the Use of Public Waters Rule.

Lake Fairlee is unique among Vermont's inland lakes because it has hosted numerous summer camps for well over a century. Today, five are still in operation. The presence of these five camps means that young children flock to Lake Fairlee every summer expecting to safely experience and learn about water sports, often for the very first time. These young campers deserve to be safe on the water. They deserve special protection from the state, above and beyond what might apply to other lakes and ponds. The presence of giant power boats creating ocean-sized waves for a tiny niche of surfers to enjoy threatens the safety of these children and camp staff. Wakesports are wholly incompatible with the traditional normal use activities pursued at each of these five summer camps.

In addition, each summer, over two thousand visitors trailer boats to Lake Fairlee. Almost half come to fish, while others come to canoe, kayak, sail, see the loons, enjoy the solitude, and more. **These normal-use activities deserve protection from wakesports**. Giant wakes and impaired visibility threaten the safety of users sharing such a limited space.

There is only one way to truly protect people on Lake Fairlee; wakesports must be prohibited. This is common sense, given the complicated circumstances on the lake. Prohibiting wakesports will protect traditional normal uses that have existed for over a century. But more importantly, prohibiting wakesports will prevent accidents and protect the many children who come to enjoy the lake and their camp community each summer. No one wants to wait for a disaster to make this point clear.

This petition is widely supported by Lake Fairlee's many stakeholders. All five summer camps and the three towns surrounding the lake are co-petitioners. The LFA and the vast majority of its members support it; the local boat dealer supports it; and the local conservation commissions

support it. There is no meaningful opposition beyond the self-interest of a very few wakesport enthusiasts.

Petitioner therefore respectfully requests that ANR exercise its rulemaking authority pursuant to 10 VSA § 1424 to amend Appendix A of the Vermont Use of Public Waters Rules by adding a lake-specific rule for Lake Fairlee, as follows:

"*b. Wakesports are prohibited.*"

The adoption of the proposed rule would protect and honor the longstanding traditional normal uses of Lake Fairlee for current and future generations of Vermonters.

Respectfully Submitted,

/David Roth/ DATE: 4/18/24

David Roth
Lake Fairlee Association, Inc.
By: David Roth., LFA President
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(Photo: Horizons Day Camp)

(Photo: Ohana Family Camp)

(Photo: Camp Billings)

(Photo: Camp Billings)

Definitions (from Vermont UPW Rules)

5.6 "Normal use" means any lawful use of any specific body of public water that occurred on a regular, frequent, and consistent basis prior to January 1, 1993.

5.16 "Wakeboat" means a motorboat that has one or more ballast tanks, ballast bags or other devices or design features used to increase the size of the motorboat's wake.

5.17 "Wakesports" means:

A. to operate a wakeboat with ballast tanks, bags, or other devices or design features engaged to increase the size of the boat's wake; or

B. to use a surfboard, wakeboard, hydrofoil, or similar device to ride on or in the wake:

i. directly behind a wakeboat without a rope; or

ii. directly behind a wakeboat with or without a rope, when the wakeboat has ballast tanks, bags, or other devices or design features engaged as described in Section 5.17.A.

5.18 "Wakesports zone" means an area of a waterbody that has a minimum of 50 contiguous acres that are at least 500 feet from shore on all sides, at least 20 feet deep, and at least 200 feet wide, located on a lake, pond, or reservoir on which, per Appendix A, vessels powered by internal combustion motors are allowed and may be used at speeds exceeding 5 miles per hour. Wakesports zones are open to all uses permitted on the subject waterbody.

References Cited

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Credits

Camp and Camper photos as labeled were supplied by the camps that operate on Lake Fairlee and are of actual campers and camp staff enjoying activities on Lake Fairlee.
The historical photo is from the Town of Fairlee Historical Society archives.

Boating illustrations in the **Justification for Prohibiting Wakesports on Lake Fairlee** section generously supplied by the Last Wilderness Alliance.

Appendix A

Lake Fairlee Camps and Year Founded

1906 Camp Billings*
1908 Big Pine/Beenadeewin
1910 Shanty Shane/Lake Fairlee Camp/ Ohana Family Camp*
1911 Camp Quinibeck
1914 Camp Passumpsic
1915 Lochearn Camp for Girls*
1915 Camp Aloha Hive*
1916 Camp Wyoda/Horizons Day Camp*
1921 Camp Neshobe/Norway
1921 Idle Pine

* Camp still active on this campus

(Photo: Camp Lochearn)

(Photo: Camp Billings)

Appendix B
Lake Fairlee Town Shorelines

The shoreline bordering the WSZ* is 84% in Thetford and 16% in West Fairlee consisting of:

- 16,814 feet in Thetford (100% of the Thetford total shoreline)
- 3,318 feet in West Fairlee. (34% of the 9,809 feet of W. Fairlee shoreline)
- The 9,219 feet of Fairlee shoreline does not immediately border the WSZ, however, a wake boat engaged in wakesports that leaves the WSZ to the northeast will immediately impact this shoreline in the narrow section of the lake.

* Measured counterclockwise from the end of Passumpsic Point to the Thetford/Fairlee town line on the opposite shore.

Appendix C

Boat Types on Lake Fairlee

Privately Owned

- Traditional, Normal Use Boats: 450 (est.)
- Wake Boats: 2

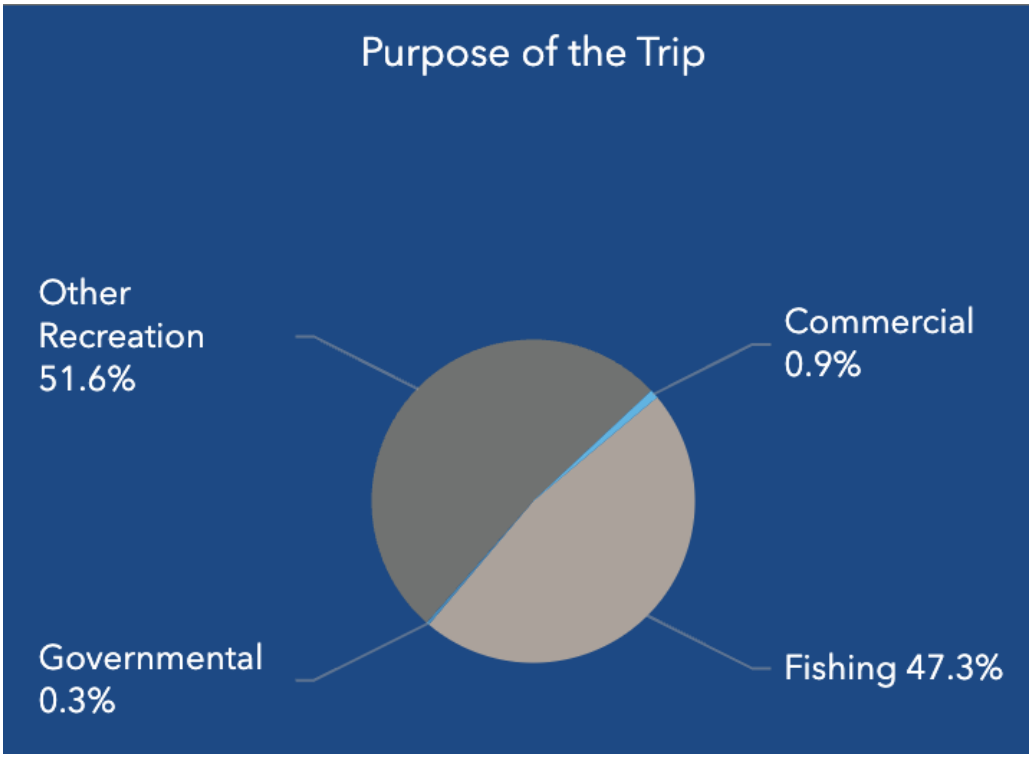
Camps

- The 4 camps abutting the WSZ have swimming beaches and collectively utilize 130 boats
- The boat total for all 5 camps on the lake is 155 boats
- 3 are waterski boats, none are wake boats

Fish and Wildlife Public Boat Ramp Access

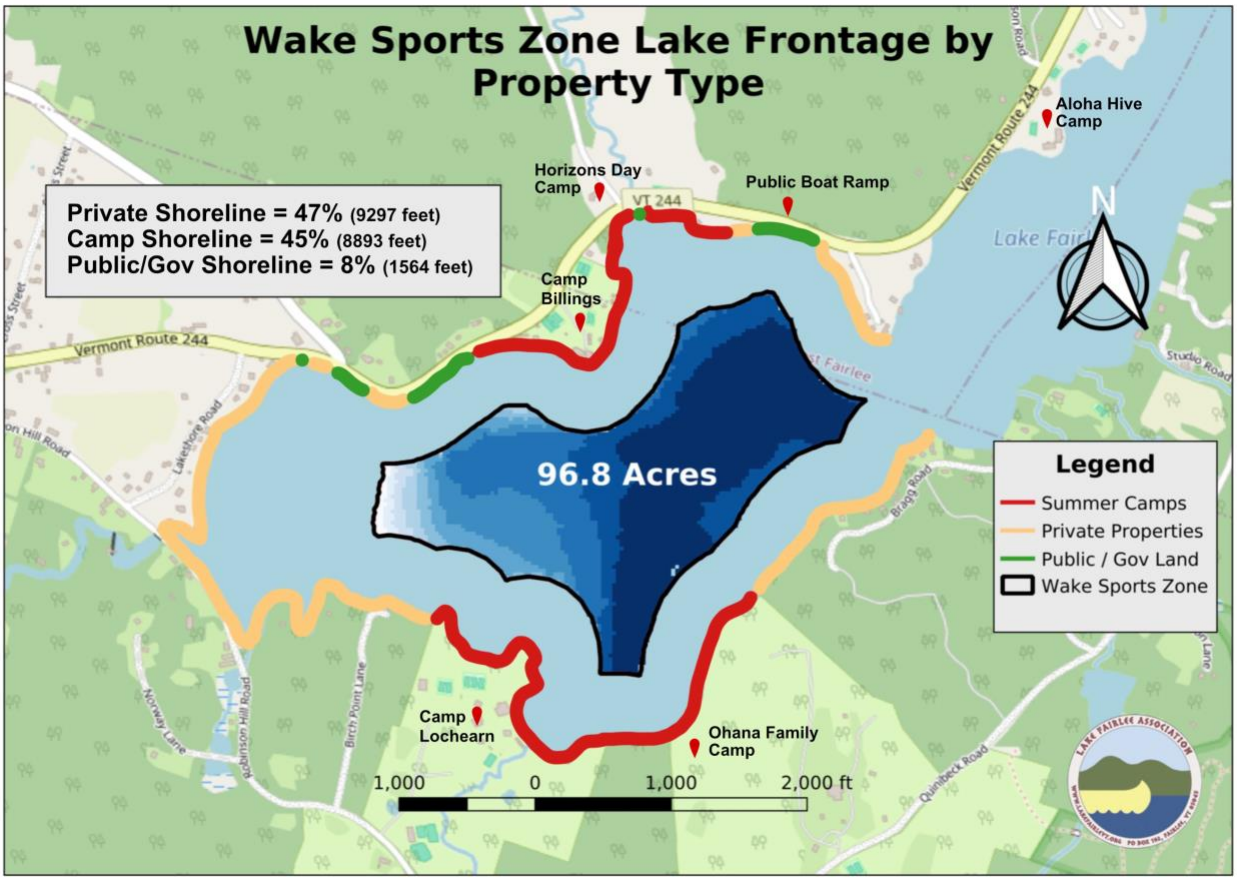
In 2023, the public boat ramp greeters welcomed 2,449 boats including 19 wake boats. 47% came to fish, 52% for other recreation, and 1% for commercial and government purposes. The watercraft type breakdown was as follows:

- Outboard Motorboats: 1155 (47%)
- Kayak: 548 (22%)
- Pontoon: 245 (10%)
- Standup Paddleboard: 185 (8%)
- Inboard Motorboat: 115 (5%)
- Canoe: 100 (4%)
- Sailboat: 42 (2%)
- Rowboat: 26 (1%)
- Wake Boat: 19 (1%)
- Other: 14 (1%)



Source: VT DEC Watercraft Inspection Survey

Appendix D
Wake Sports Zone Lake Frontage by Property Type



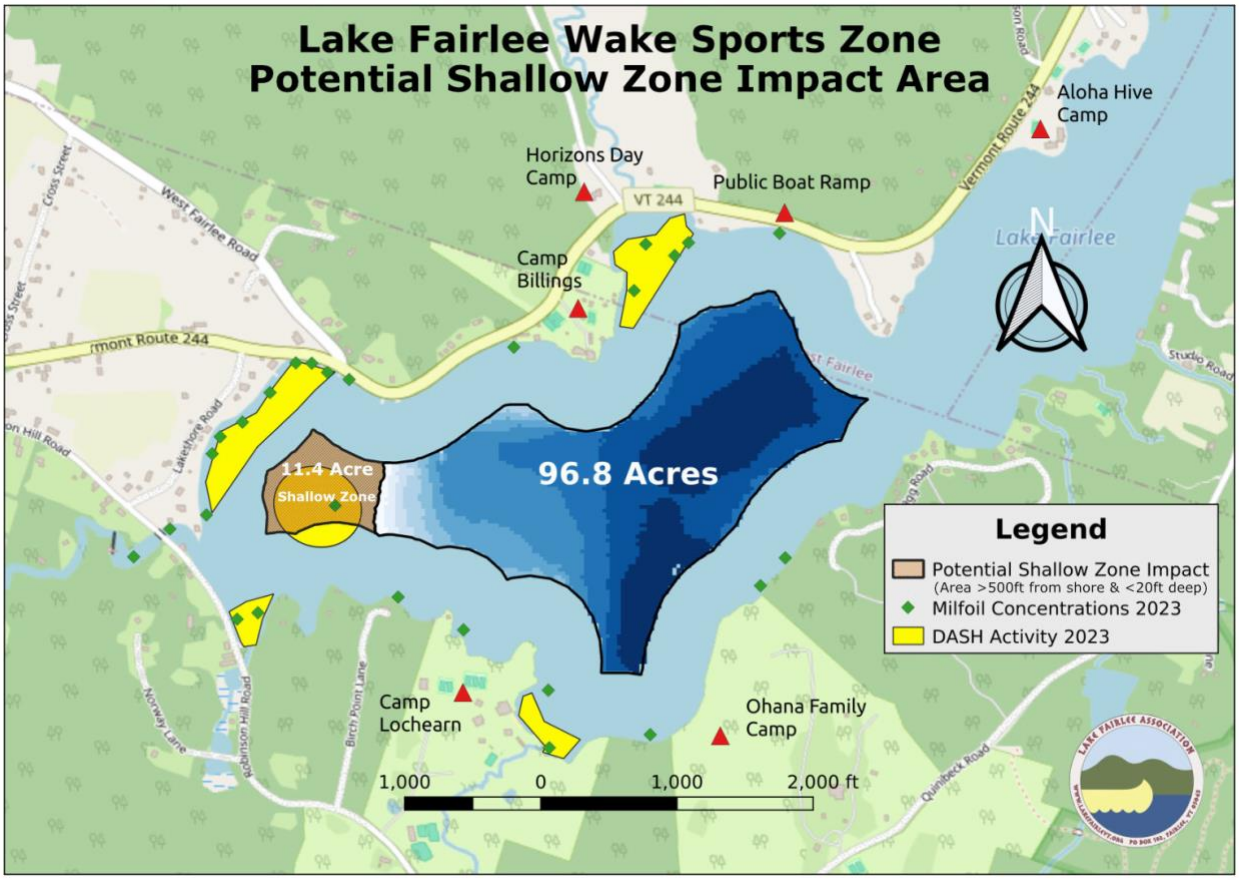
The shoreline bordering the WSZ* is almost 50% Camp shoreline:

- Private shoreline: 47%, 9297 feet
- Camp shoreline: 45%, 8893 feet
- Public/Government shoreline: 8%, 1564 feet

* Measured counterclockwise from the end of Passumpsic Point to the Thetford/Fairlee town line on the opposite shore.

Appendix E

Wake Sports Zone – Potential Shallow Zone Impact Area



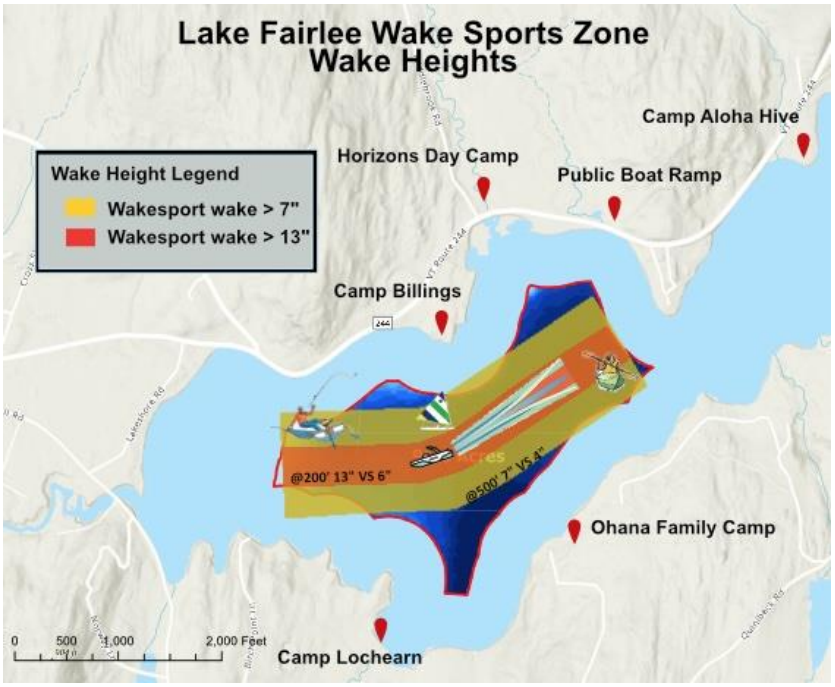
The 11.4 acre Orange Shallow Zone is not part of the WSZ. It is greater than 500 feet from shore. However, it is less than 20 feet deep (depth varies from 8 to just under 20 feet).

It may be difficult for wake boat operators to observe that they have entered this shallow zone because it is greater than 500 feet from shore. Visually discerning where the WSZ begins and ends will prove challenging. This area presents great potential for both milfoil fragmentation and spreading and lake bottom sediment suspension.

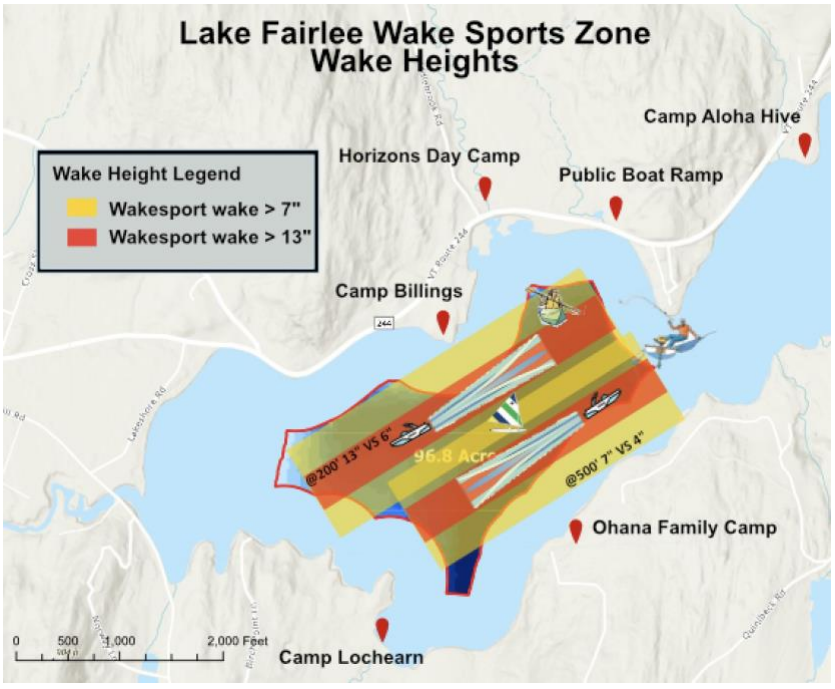
- The yellow areas indicate where diver-assisted suction harvesting (DASH) occurred in 2023. Milfoil has thrived in a majority of the Orange Zone. This area may be susceptible to future milfoil growth. Wake boats engaged in wakesports with their bow up/stern down orientation are more likely to fragment milfoil than other boats.
- Again, due to the wake boat's operating orientation, they are more likely to stir up lake bottom sediment, including phosphorus which can accelerate unhealthy cyanobacteria blooms.

Appendix F
The Exclusion Zone

Assuming wake boats most frequently choose the longest ride path within the WSZ, the Lake Fairlee WSZ averages about 1000 feet wide. One wake boat can dominate the WSZ making it unsafe for all normal uses. With its 7" wake at 500' higher than the 6" wake of a ski boat at 200', even one wake boat turns the WSZ effectively into an "Exclusion Zone" for normal uses.



A single wake boat covers the majority of the WSZ with waves unlike those created by ski boats.

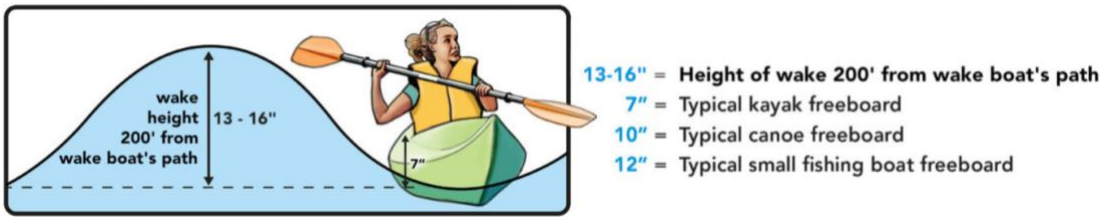


Two wake boats will cover much of the WSZ with waves more than double the size of those created by a ski boat.

Appendix F (continued)
The Exclusion Zone

Boat Type	Wave height @ 200’	Wave height @ 500’
Ski Boat	6”	4”
Wake Boat in surfing mode	13”	7”

Data used to create maps. Source: *SAFL Study (Marr J., Riesgraf A., et al., 2022)*



Wave freeboard height normal use craft vs wake height at 200 feet

Appendix G

Letters of Support

1. Fairlee Marine
2. West Fairlee Conservation Commission
3. Thetford Conservation Commission
4. Vermont Center for Ecostudies
5. Thetford Treasure Island Committee

FAIRLEE MARINE

274 US-5 South, Fairlee, VT 05045

March, 2024

RE: Wakeboats

Dear ANR/DEC,

I fully support the Lake Fairlee Association's petition to prohibit wakesports on Lake Fairlee.

I have written on this subject before and I have more to add now.

This should not be a numbers game (trying to agree on how far out serious wakes need to be to protect the shoreline and boats moored there).

Wakes go both ways and what I see with the proposed dark blue wake sports zone is an EXCLUSION ZONE! Most small boats, kayaks, canoes, and paddleboards cannot operate in an area where wake boat waves exist. The many people who now have rights to enjoy the lakes (and who pay taxes) would not be able to do so when wakesports are happening. Serious injuries could occur to those who try. Due to the distance the waves travel, the EFFECTIVE exclusion zone would also extend a long way TOWARDS SHORE from the proposed allowed zone.

Quite a few years ago Lake Associations were allowed to exclude jet skis (just because they were annoying and loud). Lake Fairlee successfully petitioned to have them excluded. We now have a real issue of interfering with the actual enjoyment ***and safety*** of a lake by allowing an UNNESECARY TYPE of boat operated by very few people to essentially control the waters of a lake.

Wake boats should stay on really big lakes where few people might be disturbed. They should not have the right to FORCE OTHERS OFF THE WATER! Lake Fairlee is a good examples of a lake totally inappropriate for Wake boats. As I pointed out above, even a 1000 ft regulation does not solve the problem because the water is disturbed both toward the shore and away!!

I have been in the Marine business for 36 years and I know how Vermont lakes are enjoyed now with a fair sharing of that lake resource. Wake boats would without question create an unfair situation that should not exist.

Robert Bartlett
President
Fairlee Marine

802-333-9745
fmarine@together.net

West Fairlee Conservation Commission
Stewards for Environment, Habitat, and Recreation

March 26, 2024

Secretary Julie Moore
Vermont Agency for Natural Resources 1 National Life Drive
Davis Building 2
Montpelier, Vermont 05620-3901

Commissioner Jason Batchelder
Vermont Department of Environmental Conservation
Davis Building-3rd Floor
Montpelier, Vermont 05620-3901

From: West Fairlee Conservation Commission
Re: Support for the Petition submitted by the Lake Fairlee Association to amend the Vermont Use of Public Waters Rules to manage wake boat activity on Lake Fairlee.

Dear Secretary Moore and Commissioner Batchelder,

The West Fairlee Conservation Commission writes in full support of the Lake Fairlee Association's petition to the Vermont Agency of Natural Resources (ANR) to prohibit wakesports on Lake Fairlee.

The Conservation Commission is charged by our town with the protection of our environment and with the promotion and sometimes oversight of responsible, sustainable, and just use of our natural resources.

Artificially enhanced wakes, created by wake boats and wake-enhancing devices, not only cause environmental damage, degrade water quality, and cause physical damage to shorelines and property, but when in use also create safety hazards for people recreating in or on the water. Many of our town residents and the many summer campers attending the camps located on West Fairlee's shores of Lake Fairlee appreciate and use the lake as an access point to enjoy our natural environment. They fish, kayak, canoe, waterski, and swim and expect to do so safely.

Many life forms depend on the health of Lake Fairlee, including the loons who nest and have successfully hatched chicks, the many aquatic animals in its depths, and again, the people who swim, fish, and paddle its waters. Several lake recreationists have already been frightened, disconcerted and concerned by large artificial wakes from these boats which threaten their safety.

The ANR acknowledges that the development of the VT Use of Public Waters rule did not take into consideration whether the rule is adequate to provide safe enjoyment of existing normal uses on Vermont's inland lakes.

In the ANR's January 2024 Responsiveness Summary for Wakeboat Rulemaking, Response 76, ANR stated:

> *"As the comment notes, additional rulemaking may be approached on a waterbody-specific basis. The Agency anticipates receiving and responding to several waterbody-specific wakeboat rulemaking petitions. The Agency expects that such petitions will demand particular focus on aquatic recreation and safety planning—areas where current Agency staff does not have deep professional experience. Therefore, in preparation for consideration of waterbody-specific petitions, the Agency will explore retaining services of an external consultants with relevant expertise."*

During the 2/15/2024 LCAR Meeting they also stated:

> *"We acknowledge that the staff doesn't have the fine level expertise on safety and recreation conflict that might make this go even further, in particular identifying specific criteria at the intersection of conflicting uses."*

We whose lives are lived around these waters deeply recognize the need to share them with the many other species who depend on them. Our town is a vital stakeholder in the health of the lake, and the wellbeing of its users. We hope you will take our statement of concern about wake sports on our lake under due advisement.

We strongly urge the ANR to act favorably on the Lake Fairlee Association petition to prohibit wakesports on Lake Fairlee.

Thank you for your consideration,
West Fairlee Conservation Commission

Peggy Willey, Chair

THETFORD
CONSERVATION
COMMISSION

April 11, 2024

Secretary Julie Moore
Vermont Agency for Natural Resources
1 National Life Drive
Davis Building 2
Montpelier, Vermont 05620-3901

Commissioner Jason Batchelder
Vermont Department of Environmental Conservation
Davis Building-3rd Floor
Montpelier, Vermont 05620-3901

From: The Thetford, Vermont Conservation Commission

Subject: Support of Lake Fairlee Association Petition to the Vermont ANR to amend the Vermont Use of Public Waters Rules to Prohibit Wakesports on Lake Fairlee

Dear Secretary Moore and Commissioner Batchelder,

The Thetford Conservation Commission is writing in support of the petition submitted by the Lake Fairlee Association (LFA) to prohibit wakesports on Lake Fairlee. We believe the need to prohibit wakesports on Lake Fairlee is clear, well-supported by research, and in the best interest of Vermont's natural resources and people.

As documented in the petition, wake boating creates waves with greater height and power than the waves with which shoreline vegetation and animals have evolved and people using Lake Fairlee have been accustomed. These waves are significantly larger and more powerful than waves generated by traditional powered watercraft such as waterski boats, pontoon boats, and fishing boats. These larger waves can lead to a broad array of environmental damage to Vermont lake habitat and increase the potential for traditional lake user safety issues including:

- Larger wakes increase the likelihood of swamping or capsizing other boats, potentially leading to physical injury;

- Wake boats' unique operational orientation, bow-up, can suspend bottom sediments, including phosphorus, which can lead to cyanobacteria blooms (blue-green algae), potentially making the water toxic and unsafe for any recreation;
- The bow-up orientation can efficiently shred, fragment, and spread the already existing Eurasian milfoil;
- Larger waves raise sediments in the nearshore, littoral zone, increasing turbidity and degrading water quality and growing conditions for aquatic vegetation;
- Larger waves increase shoreline erosion, causing an influx of sediments and nutrients to the lake, while undercutting the roots of shoreline vegetation;
- Larger waves can flood shorebird nests; of particular concern are loons, a species that is particularly vulnerable to nest flooding and disturbance;
- Larger waves can disturb and flood required shoreline habitat for many additional mammals, reptiles, and amphibians.

The Thetford Conservation Commission believes that the public needs to be able to experience and enjoy our local natural resources, like Lake Fairlee, in order to care about protecting them. We are concerned that the large waves generated by wake boats make other recreational activities on the lake–including canoeing, kayaking, paddleboarding, sailing, swimming, and fishing– significantly less safe, especially for children attending one of Lake Fairlee's five summer camps. These long-established ways of enjoying the beauty of Vermont lakes also deserve protection.

Given the scale of wake boats' potential ecological impact on habitat, water quality, and spread of milfoil, together with the increased danger wake boats present to almost all other recreational activities, we strongly support the Lake Fairlee Association's petition to prohibit wakesports on Lake Fairlee.

Sincerely,

Krista Karlson, Co-Chair, on behalf of The Thetford Conservation Commission
conservation@thetfordvt.gov

VERMONT CENTER FOR ECOSTUDIES
Uniting People and Science for Conservation

Wakesports and Loons on Lake Fairlee April 1, 2024

I am writing regarding concerns about wakesports, loons, and water quality on Lake Fairlee in Fairlee, Vermont. Loons have nested on both a raft and on the shoreline at the north end of Lake Fairlee. We are observing "extra" loon activity in the lake's southern end (the permitted area for wakesports), where there is room for a second pair to develop in the coming years. Loon nests are usually located from 2-8 inches vertically from the water. Even at 500 feet, a wakeboat could produce a wave that is 5-6 inches tall. The 15 or so current loon nests in Vermont that are directly exposed to where wakesports will occur could be at risk. I am concerned about the intentional or unintentional wakeboater who ends up 300 feet from shore with an occupied loon nest nearby. It only takes one boat to flood out a nest. Waves created 300 to 400 feet from shore could produce waves in excess of eight to ten inches, which will wash out loon nests and will definitely contribute to more erosion, sedimentation, turbidity, and overall decrease in water quality. Even at 500 feet, a wake boat has the equivalent impact (wave force) of a standard motorboat at less than 50 feet.

My long-term concerns about wakesports will be the degradation of lake shorelines and riparian areas and the resulting decline in water quality, especially in sections of lakes that are not naturally conditioned for larger wave action. The results of higher wave action are more erosion, increased sedimentation, and higher turbidity, which contribute to higher nutrient loads in the water column, and decreased visibility. From a recent study in Wisconsin, loon chick productivity has declined over the past 25 years due in part to decreases in water clarity (Piper, et al. 2020, loonproject.org 2023). Adult male and chick weights have declined during this same period. Loons need clear lakes for successful feeding, and declines in weight contribute to declines in a loon's overall fitness and ability to raise young successfully. We have not seen this decline in Vermont, but it is something we'll be monitoring closely. The VT DEC lists Lake Fairlee water quality as stressed due to nutrients and phosphorous, and secchi disk readings have significantly declined. Healthy riparian areas are critical for the base of a lake's food web, which plants, aquatic insects, fish, and loons all depend on.

There are many effects of wave action that we do not know because of the newness of wakeboats. How will larger wakes affect small loon chicks who do not have the waterproofing that adult loons do? Non-breeding and breeding loons often congregate in the middle of larger lakes. How will hours of large wakes affect these important social gatherings? We do not know the effects of continued excessive rocking of a raft nest on incubating loons. Wakesports will be an additional stressor on wildlife and lake water quality.

The Vermont Center for Ecostudies supports the petition by the Lake Fairlee Association to prohibit wakesports from operating on Lake Fairlee.

Sincerely,
Eric Hanson
Vermont Loon Conservation Project Biologist
Vermont Center for Ecostudies

Piper, W., J. Grear, B. Hoover, E. Lomery, L. Grenzer (2020). Plunging floater survival causes cryptic population decline in the Common Loon. Ornithological Applications. Volume 122, Issue 4, 2 November 2020, duaa044, https://doi.org/10.1093/condor/duaa044

TREASURE ISLAND COMMITTEE

Town of Thetford Selectboard
P.O. Box 126
Thetford, VT 05075

April 17, 2024

Secretary Julie Moore
Vermont Agency for Natural Resources
1 National Life Drive
Davis Building 2
Montpelier, Vermont 05620-3901

Commissioner Jason Batchelder
Vermont Department of Environmental Conservation
Davis Building–3rd Floor
Montpelier, Vermont 05620-3901

Dear Secretary Moore and Commissioner Batchelder,

The Treasure Island Committee writes in support of the Lake Fairlee Association's (LFA) Petition to the Vermont Agency of Natural Resources (ANR) to prohibit wakesports on Lake Fairlee. In March 2022 we wrote a letter of support for the Responsible Wakes for Vermont Lakes (RWVL) petition to the ANR. Had the rule proposed in that petition been approved, wakesports would have been prohibited from Lake Fairlee. We wish to reinforce our belief that wakesports do not belong on 465-acre Lake Fairlee and we fully support this new LFA petition.

Our committee consists of appointed volunteers from the three towns that border Lake Fairlee. Our charge is to advise the Thetford Selectboard regarding the financial, recreational, and conservation needs of the Treasure Island Public Beach and Nature Area located at the northern end of Lake Fairlee. As a facility purchased by Thetford in 1973 with local, state, and federal dollars and open to all, we feel the need to ensure visitors the opportunity to safely enjoy our beach as an entry point to the entire lake for all traditional "normal uses" such as swimming, canoeing, kayaking, sailing, waterskiing, and paddleboarding. We anticipate that wake boat activity in the new 96.8-acre wakesports zone — located in the most densely used portion of the lake surrounded by four summer camps and the public boat ramp — will create numerous use conflicts. We believe this will pose a hazard to, and will thus be incompatible with, these normal uses.

Our committee members have also learned that the ANR did not consider the safety of traditional lake users when drafting the recently adopted rule. Wake boats are relatively new to Vermont's lakes, are not a normal use, and are in a class of their own. Wake boats have been getting larger and more powerful year after year and there is every indication this will continue. The ANR also failed to consider the wave size increase (constructive interference) that occurs when multiple wake boats operate near each other. Importantly, while the rule prohibits wakesports closer than 500 feet from shore, it did not modify the distance wakesports must be from other boats or

swimmers. This distance remains at 200 feet. How can 200 feet be safe for canoes, kayaks, and small sailboats operating in the wakesport zone when the waves generated by wake boats at that distance are higher than the sides of those boats? They will be swamped in the middle of the lake far from shore.

In closing, we believe that the activities of the small minority of boaters engaged in wakesports will pose both a hazard and significant interference with those who engage in traditional lake activities. The public good will not be served by allowing wakesports on Lake Fairlee.

David Roth, chair
Dale Gephart
Ann Jane Kemon
Christopher Leitao
Lucas Stepno
Doug Tifft