

From: cedric sanborn <crsanborn777@gmail.com>
Sent: Sunday, December 22, 2024 7:41 PM
To: ANR - WSMD Lakes
Subject: Wakesports - Joe's Pond

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All -

First off - accolades to Laura Dlugolecki as facilitator for the public meetings. She did an excellent job.

I fully support the partition to ban wake boating on Joe's Pond, as well as the other 9 lakes that have petitioned for the same.

I think for clarification - I am not asking to ban wake boats per se, but to ban the activity of using a loaded wake boat for the purpose of wake boating/wakeboarding, or any other activity that requires a loaded or partially loaded ballast tanks. A wake boat without any ballast in its tanks is a motor boat and I think its use would fall under a normal use.

Since wake boats and wakeboarding didn't exist when the lake rules were established, they cannot and should not be considered a normal use, and their use prohibited. Same as the way that jet skis were classified and subsequently banned from most lakes and ponds.

My wife and I, native Vermonters both, have canoed and kayaked Vermont's lakes, ponds, and rivers for over 50 years. The first 30 by canoe, the past 25 years by kayak. In all those years we have never tipped over (white caps, boat wakes) . For most part we have not ever really felt threatened by the wake of a passing motor boat. It seems with the advent of wake boating that could very change - not looking forward to it. Nor should we have to.

I am going to focus on just the adverse effects on normal swimming, boating activities from wake sports. I believe the discussion on the potential negative impact of wake sport waves generated on wildlife (loons and more) , and the disturbance of lake bottom sediments was well covered in the hearings held earlier this year. But to no avail. But for some reason at that time the DEC chose not to address the safety of the other users of the lakes.

Currently a motor boat exceeding a speed of more than 5 mph, needs to be at least 200' from the shoreline, as well as 200' from docks, swimmers, and non motorized watercraft. This is to prevent shoreline erosion, as well protect docks, swimmers, and non motorized boaters from the waves.

So in recognition that wake boats create a significant number of close spaced waves (chain waves) with higher energy (taller/higher waves) than a traditional motor boat, the newly passed wake boating rules, requires in part for them to be 500' from the shoreline. This is to protect the shoreline from erosion. So 500' is the new 200'. But the new rules leaves docks, swimmers and non-motorized boats with only the existing 200' buffer. This distance should have been increased to 500' as well. Since it doesn't, the state has failed to protect the normal users of the lake.

As an avid kayaker, I usually do 50 or so outings over year over spread amongst 20 - 30 different lakes. Quite often just me, but in any event it is not uncommon to be several hundred feet from the shoreline, or to be crossing the broad lake.. Which puts me that much closer to the wake boat which is maintaining just the 500' shoreline distance.

A family kayak outing for us can include a 1 year, a 6-year-old with her own kayak, and adults up to age 74. For everyone's safety and well being we will be forced to curtail our activities in the presence of an active wake boat. Traumatizing kids or anyone else into being afraid to go out on the water, even to go into the water swim/splash around so wrong on so many fronts. Essentially forced off the lake to accommodate the wake boat. Pretty sure that's not what the statutes and rules governing the use of Vermont's lakes and ponds speaks to.

Normal standard sized boat waves are easy to "ride out". But the close spaced waves from a wake boat that can be, based on current literature and testimonials from impacted Vermonters, several feet high will not be. Which could lead to paddle boats, sail boats, and even small, motorized fishing craft being tossed around or even tipped over. Causing personal injury, loss equipment (fishing, cameras, etc.), traumatized occupants, etc.

Lets flesh out tipping over, it means the occupant is now out of the boat which may or may not be full or partially full of water. And you if can't touch bottom, there is no way to empty the water from a canoe or kayak (OK, a canoe if you remember your Boy Scout training from decades ago), and likewise no way to get back in. Fortunately canoes and kayaks have flotation foam of some type, so they don't sink. But this could mean swimming back pushing a partially or fully submerged boat, from whatever distance you are from shore.

And the DEC in its earlier ruling, did not even address the impact of these waves on **all the users** of the lake on the lake side of the wake boat, where there is still only a 200' buffer. It creates an unsafe situation for all. And when the boat turns at the end its run, you get a wave impact in all directions from the boat.

Our lakes and ponds are not large enough to safely accommodate this new use.

Please support the petition

Cedric Sanborn
106 Lyman Road
Barre, VT 25641
802-476-0617
crsanborn777@gmail.com

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From: CHRISTY BURNS <anzacreative@comcast.net>
Sent: Saturday, December 21, 2024 4:28 PM
To: ANR - WSMD Lakes
Subject: Wakesports Joe's Pond

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We are in support of the petition to ban wake boats on Joe's Pond. We enjoy kayaking and fishing on the pond, however it is becoming increasingly dangerous with the wake boats generating large waves knocking into our boats. These waves also are eroding the shorelines and are detrimental to the pond's vegetation. We have seen the shallow water areas get churned up and this increases the nutrients in the sediments to be released into the water column fueling blue green algae blooms.

Please prohibit wakesports on Joe's Pond.

Sincerely,

From: Claudia Sacuk <claudia.sacuk@gmail.com>
Sent: Sunday, December 8, 2024 12:00 PM
To: ANR - WSMD Lakes
Subject: wakesports

You don't often get email from claudia.sacuk@gmail.com. [Learn why this is important](#)

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I would like to express my strong support of BANNING wakesports on Vermont lakes who have requested such action. I am especially interested in banning them on Joes' pond which already has 5 such boats on this relatively small lake.

Our lakes are already experiencing great pressure from climate change with its warming waters and toxic algae blooms. Our water bodies certainly do not need these boats to stir up the lake bottoms and add extra nutrients to feed such blooms. Joes pond had recently been added to the unfortunate list of lakes with eurasian milfoil. Wake boats are very good at spreading this weed. We must not allow them to cause damage for the pleasure of a few users.

The current rules are unenforceable. As a kayaker I am also concerned from a safety point of view. When I see such boats on the pond I am afraid to even venture out in my boat.

Please listen to reason and ban wakeports on those waterbodies which have so petitioned. Let Vermont show that we care for our environment.

Claudia Sacuk West Windsor VT

My name is David Kidney. My family has had a camp on Joe's Pond since the 1950's. I love Joe's Pond, which is why I support the petition filed by the Joe's Pond Association (JPA) and the Towns of Danville and Cabot, to prohibit wake sports on the pond.

Let me say first, that the members of the JPA overwhelmingly support the petition. And we are honored that the Towns of Danville and Cabot have joined us as co-petitioners after their select boards unanimously voted to do so. The fact that these three entities – the two towns in which Joe's Pond is located and the Association which represents the 240 camp owners on the Pond – all vigorously support the prohibition of wake sports on Joe's Pond should go a long way to persuading you that the petition should be granted.

The gist of the petition is that wake sports irreconcilably and dangerously conflict with longstanding normal uses on Joe's Pond and negatively impact the shoreline of the pond.

Joe's Pond is a beautiful body of water nestled in the idyllic towns of Danville and Cabot. Normal uses on the pond are swimming, kayaking, canoeing, paddleboarding, fishing, sailing, water skiing, and tubing. All these uses are incompatible with wake ,surfing, which in many instances precludes normal uses as they are not able to use the pond when it is churned up with huge waves.

The ANR has concluded that wake sports are not a normal use. And the Water Resources Board has recognized that not all uses may be accommodated on a particular body of water

because some will severely diminish or even preclude other uses. This is exactly the situation on Joe's Pond. Wake sports have seriously diminished and precluded normal uses on the pond. As such, wake sports create an irreconcilable use conflict. And where such conflict exists, UPW Rule 26(e) states that they shall be managed in a manner that provides for all normal uses to the greatest extent possible. To achieve this on Joe's Pond, wake sports must be prohibited.

Under the current wake sports rule, Joe's Pond has an eligible wake sport zone of 54 acres, just over the 50-acre minimum. This zone is in the south part of the third pond and covers the entire broad and deep part of the lake. As such, it usurps a section of the lake that has always been used and enjoyed by generations of lake goers engaged in normal activities. Throughout the summer JP residents and visitors enjoy heading to and actively using the south end of the lake. Many people, especially children, revel in swimming off their boats in the 90' hole, sailors love the broad part of the Pond where they can make longer tacks through the wind, paddlers quietly criss cross this part of the Pond at random, skiers and tubers make their wide turns in the south end, pontoon boats cruise there and stop and drift savoring the views, and anglers stop there to fish the deep waters. Wake sports with their powerful wakes disturb and preclude all these fun time – honored past times. The powerful wake energy generated by wake sports renders the broad part of the pond unsafe and unusable for all normal recreational activities. Because of the new wake zone – the broad and deep part of the Pond is now monopolized by a single interest niche sport.

Joe's Pond is a very busy lake. It has 240 camps on its shore and a large boat access right off Route 2, which is directly across from the wake sport zone. The pond gets a ton of traffic. It is because the pond is so busy – and the wake sport zone encompasses the entire broad part of the pond – that wake sports on Joe's Pond pose an unreasonable and unacceptable threat to the public's safety while engaging in normal use recreational activities.

Wake sports huge wakes endanger highly vulnerable swimmers and skiers and can swamp or capsize paddlers and other small boats – like the numerous sunfish that sail Joe's Pond or the small aluminum fishing boats favored by many anglers. Even experienced paddlers risk capsizing, and children and other beginners do not stand a chance in an enormously enhanced wave. A single wake boat creates unsafe conditions across the entire designated zone on the broad lake. Thus, making it almost impossible for normal users to have safe access and enjoyment of this prime location.

The danger on Joe's Pond is magnified because there are at least two wake boats on the pond. When two or more wake sports occur simultaneously and in proximity to each other, their wakes intersect and create enormous high-powered waves that are more hazardous than waves generated by a single wake boat. This is especially true when the area these boats can operate in barely exceeds 50 acres. And our concern is that without a ban more wake boats, which will

most likely be more powerful and create even larger wakes, will inevitably come in the future, which will exacerbate an already untenable situation.

At a February 15, 2023, public meeting Oliver Pierson stated that the DEC concluded that wake boats needed a minimum of 3000' straight shot to enjoy wake surfing. This was reiterated by Julie Moore, Secretary, ANR, on January 3, 2024, when she filed the Final Proposed Filing, which proposed the current wake sport rule. The Final Proposed Filing states, “a 50 acre minimum will allow for a minimum wakeboating run of 3000 feet, which allows for a 3 minute run at 11.5 miles per hour (16.7 feet/second) before leaving the area eligible for wakesports and allows for the wakeboat to be 200 feet from other vessels/swimmers without leaving the wake-eligible area”. (Emphasis added. Final Proposed Filing, Environmental Impact Analysis , page 4) On Joe’s Pond, however, this is not true. The eligible zone on Joe’s Pond does not allow for a “wakeboating run of 3000 feet”. The longest straight shot in the Joe’s Pond zone is 2200 feet, well short of the ANR acknowledged distance that is necessary for wake boats to operate safely. This being the case, wake sports on Joe’s Pond must be prohibited. Unable to attain a run of 3000’ within the eligible zone, wake boats on Joe’s Pond must resort to going back and forth more frequently creating even more wake in a small, confined area. Also, given that the zone is too short to operate in, wake boats are, as the ANR acknowledged in its Final Proposed filing, more likely to go outside the eligible zone. As a result, the negative impact on normal use of the Pond – is magnified and made worse.

The bottom line is that the uniqueness of Joe's Pond makes it unsuitable for wake sports.

That uniqueness being:

1. The designated zone is so small, barely over the 50-acre minimum
2. The zone encompasses the entire broad and deep part of the pond – the most popular area for normal use recreation.
3. The fact that the Pond gets so much traffic. And
4. That the eligible zone on Joe's Pond does not provide for the 3000' minimum run, per the ANR, necessary for wake boats to operate safely.

These four unique characteristics – create a real safety issue that cannot be ignored.

Nobody wants themselves or even more so their kids or grandkids on a sunfish, kayak, paddleboard, canoe, or other small craft, out in the designated zone when wake sports are happening. The only way to protect normal users from exposure to the hazardous waves generated by wake sports is to prohibit such activity on Joe's Pond.

As for shoreline erosion, property damage and economic impact – all of that is addressed in the petition and are very real. And although environmental concerns are not addressed in the petition, petitioners are very concerned about wake boats promoting blue green algae, which now blooms every summer in a cove adjacent to the designated zone. Although wake boats may try

to stay in the zone, given the small size of the zone and the fact that it does not permit the necessary 3000' straight shot, it is inevitable that they will go outside the zone occasionally to stay 200' away from normal users. When this happens, the bottom of the pond will be churned up releasing the dormant phosphate that feeds cyanobacteria. There is also concern about the spread of Eurasian milfoil, which was found for the first time at Joe's Pond this year. This is despite Joe's Pond having one of the oldest and best inspection programs in the State - but you cannot check the ballast of a wake boat. And we are concerned about wake surfing having a negative impact on the pond's water quality and how this affects the wildlife – nesting loons, eagles, blue herons, fish, and ducks. So, petitioners do have serious environmental concerns.

In conclusion, I urge the ANR to support the JPA and the Towns of Danville and Cabot and join with them to protect the jewel that is Joe's Pond. I respectfully request that the Agency conclude that the safety and best interests of traditional normal users can only be met by prohibiting wake sports on Joe's Pond.

Thank you,

David Kidney

From: dmbrossi@aol.com
Sent: Friday, December 20, 2024 10:16 AM
To: ANR - WSMD Lakes
Subject: Joe's Pond Wakesports

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My name is Diane Rossi. My husband and I, and now just me, have lived on the west shore of Joe's Pond for 24 years. Prior to us building a new home here, there was a camp owned by my in-laws since the 1960's.

I have always preferred the quieter lake sports, specifically sailing and kayaking, which have become more difficult since my home is located right where the wake boats are currently allowed to operate. They seem to be trying to follow the new rules, and stay out there where they're supposed to be, going back and forth, back and forth, back and forth, in the same short distance. Is that even fun for them?

The wake that comes ashore here is huge, and makes getting into or out of my kayak almost impossible unless I can time it just right. There is so much turbulence in my boathouse, trying to tie up a boat in there results in lines snapping and the boat hitting the walkway. My youngest nieces and nephews can't stay in the water while all that is going on.

It's hard for me to believe that all that water agitation isn't affecting the pond bottom all the way into the shore. The water appears turbid. It seems like the new rules might actually be making things worse, since all the wakesport activity is confined to this one short distance right in the middle of the big pond.

Please ban them from Joe's Pond!

From: Dorothy Tod <dtod@madriver.com>
Sent: Monday, December 23, 2024 3:52 PM
To: ANR - WSMD Lakes
Subject: wakeboats: Joe's Pond, Waterbury Reservoir, Caspian Lake and Lake Willoughby petitions

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To Whom it may concern:

I am an ardent kayaker and although I live in Warren Vt I paddle in many of the Vermont bodies of water that have recently submitted petitions to ban wakeboats. It was very interesting to me to hear the testimony from the residents of all these lakes that I have come to love, hear of their distress and feel humbled by all the volunteer time and care that has gone into creating the paddling experiences I so treasure. VT is blessed with an abundance of boat access launches that kayakers like me benefit from. And we are not necessarily aware of the fact that we now will encounter wakeboats operating on a lake. I was especially struck by Joe's Pond special problem with run being so short, the back and forth motion creating powerful cross currents.

Please confine the wakeboats to larger bodies of water: Lake Champlain and Lake Memphremagog.

Thank you.
Dorothy Tod

From: Douglas Martin <dgmvt43@gmail.com>
Sent: Saturday, December 21, 2024 9:43 AM
To: ANR - WSMD Lakes
Subject: Wakesports re: Joe's Pond

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Good morning,

Thank you for hearing our concerns regarding the use of wake boats on Joe's Pond. The comments made at the December 12th hearing about our pond I fully support as the owner of waterfront properties near the designated wake boat area. The shape of the pond with three smaller pieces and the size of the of the area that, under the rules, allows a wake boat area to exist left the pond and its campers in an untenable situation. ie. barely fits the area required under the rules in only part of the pond.

The discovery of Eurasian Milfoil in the pond this year is just another situation that makes the use of wake boats counter productive to managing the overall environment of our pond.

Thank you,

Doug Martin

Edgewood Ave
West Danville

From: barry cahoon <bear817@hotmail.com>
Sent: Saturday, November 23, 2024 4:11 PM
To: ANR - WSMD Lakes; David Kidney; Joe Hebert
Subject: Wakesports Joes Pond Petition

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I am writing in support of the Joes Pond Association petition to ban wake sports on Joes Pond.

In addition to the reasons (which I support) listed in the petition, i.e., wake sports conflict with normal uses, limited space for wake sports operation in compliance with the VT Use of Public Waters Rule, safety of other lake users, and shoreline erosion, I offer 3 additional concerns:

1. Joes Pond is suffering from a recent introduction of Eurasian Watermilfoil for which the Joes Pond Association is working hard to contain. There is no more perfect boat design for fragmenting and spreading milfoil around the lake than a wake boat.
2. Wake boat ballast tanks present an unacceptably risky vector for introduction of additional invasive species into Joes Pond such as spiny water flea and zebra mussel veligers. Absent any other environmental concern, this alone should be enough to justify a wake sports ban.
3. The day is long past when the human community can rationally justify the totally discretionary recreational burning of fossil fuels. Earth is on a trajectory to burn. This can't be ignored by public policy decisions that can serve to limit the impact of thoughtless, careless, self-serving human behavior taken without regard for the future. Wake boats are at the pinnacle of obscenely inefficient fossil fuel use just for the purpose of having fun.

I want to believe that the VT Agency of Natural Resources can exercise its ethical and legal decisions on a higher plane and approve this petition.

For Joes Pond
And for the Earth
Barry Cahoon
960 Parker Road
Danville, VT 05828
bear817@hotmail.com
802-535-0049

From: don81962@optonline.net
Sent: Friday, November 22, 2024 7:50 PM
To: ANR - WSMD Lakes
Subject: Joe's Pond and Wake Sports
Attachments: Wake Boats.docx

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Attached is a copy our comments regarding Wake Boats on Joe's Pond.
We are in favor of banning Wake Boats on Joe's Pond.

Don and Diane Sherwood
367 Old Homestead Road
West Danville, VT 05873

Joe's Pond is too small to allow wake boats on it. The permissible area for wake boats is very limited. Their wakes are too destructive to the shore line and the pond's bottom. They will cause the process of eutrophication to speed up. As an example, the little beach where our children/grandchildren used to play is no longer there. I have seen the results of the wakes slam into my shore and pull out the material which makes up the shore line. This has caused erosion around and behind my bulk head. Under the current limitations, this has occurred much too often. Therefore, we recommend that the wake boats not be allowed on Joe's Pond.

Don and Diane Sherwood
367 Old Homestead Road
West Danville, VT 05873

From: Emilie Begin <embegin687@gmail.com>
Sent: Sunday, December 8, 2024 4:25 PM
To: ANR - WSMD Lakes
Subject: Joe's Pond Wakesports Concerns

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Good Evening,

I am writing in regards to my concerns about wakesports taking place at Joe's Pond in West Danville / Cabot, Vermont.

I grew up spending summers on the pond and have many lovely memories of kayaking, swimming, paddle boarding and pontoon boating. My parents and grandparents both reside on the lake, now full time. This coming summer, 2025, my daughter will be 14 months old and she loves to swim. I want her to be able to join us for kayak rides or on the paddle board without fear that a wakeboat will create massive waves, drenching us in water or possibly tipping us. I want her to be able to swim safely off the beach at her grandparents and great-grandparents homes without fear of large waves caused by wakeboats knocking her down. Pontoons and speed boats most certainly do not possess the same large wave making capabilities.

The use of wakeboats for wakesports also causes concern for the welfare of the lake itself. I want to see many generations of my family enjoy safe and clean access to our beloved Joe's Pond, so I certainly call into question anything with known negative impacts. As research suggests, the churning of the lower lake levels by stirring up sediment, disrupts native plant life. This research and knowledge alone should have been reason enough to ban wakesports from small ponds and lakes like Joe's Pond.

I hope that you take my personal account into consideration.

Thank you,
Emilie Begin Giddings

From: Emily Anderson <eanderson@vtcostudies.org>
Sent: Friday, December 20, 2024 12:39 PM
To: ANR - WSMD Lakes
Subject: Wakesports on Joe's Pond Written Comment - VT Center for Ecostudies
Attachments: Wakesports_Joe's Pond_VCE.pdf

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Dear ANR staff,

Thank you for the opportunity to provide both written and verbal comments on the nine petitions proposing amendments to Appendix A of the Use of Public Waters Rules that seek the prohibition of wakesports on 10 Vermont waterbodies. I am submitting nine written comments---one for each petition---on behalf of Eric Hanson, Loon Biologist at the Vermont Center for Ecostudies. Attached you will find the comment for Joe's Pond.

Please note that I've labeled sections in our comments to make it easy to tell what is lake-specific information versus general comments about wakesports and loons in Vermont more broadly. If you have any questions, please don't hesitate to contact me.

Sincerely,
Emily

--

Emily Anderson (she/her)
Science to Policy Manager
Vermont Center for Ecostudies
Mailing address: PO Box 420, Norwich, VT 05055
Physical address: 20 Palmer Court, White River Junction, VT 05001
Phone: (802) 989-4128 (cell)



Re: Proposed Amendment to Appendix A of the Use of Public Waters Rules, Joe's Pond

I am writing in support of the petitions requesting that wakesports be prohibited on Joe's Pond due to my concerns about the effects of wakesports on loons and water quality. I am a biologist for the Vermont Center for Ecostudies who has spent the past 32 years studying Common Loons. During that time, I have been fortunate to witness the recovery and delisting of loons in Vermont—arguably one of the state's most outstanding conservation success stories. Vermont's Common Loon's remarkable comeback is a testament to the power of multi-faceted, community-wide conservation strategies. In deciding whether to adopt new rules for wakesports on these 10 waterbodies, ANR has an opportunity to build upon decades of loon conservation efforts and to safeguard this iconic species against a significant, emerging threat.

Effects of Wakesports on Loons

The rule approved on February 15, 2024, does not adequately address wakesports' risks to loons. Loon nests—whether on shorelines or specialized nesting rafts—are usually located 2–8 inches above the water level. Even when adhering to the current 500-foot buffer, a wakeboat has the equivalent impact (wave force) that a standard motorboat would from just 50 feet away, producing a wave 5–6 inches tall. Waves of this height would likely flood the 15 or so loon nests currently directly exposed to wakesport zones, causing nest failure.

Loons may move their nests from year to year, and new loon pairs form, especially on larger lakes in recent years. Most of Vermont's smaller lakes are now occupied by territorial loons, and we have documented more new pairs finding sites on larger lakes where wakesports are more of an issue. For example, in 2024, we documented new nesting pairs on Lake Seymour and Echo Lake. Some loons may build new nests in areas more exposed to the wakes generated in current wakeboat zones, threatening their nesting success on these lakes.

I am also concerned about the long-term impact of wakesports on shorelines and shallow riparian areas. Increased waves will promote shoreline erosion and decrease flood resilience. Healthy lakeshores are critical for the base of aquatic food webs, on which plants, aquatic insects, fish, and loons all depend. Erosion increases water sedimentation, turbidity, and nutrient loads, all of which decrease visibility, feeding success, and loon chick survival rates. In Wisconsin, a recent study showed that loon chick survival has declined over the past 25 years due in part to decreases in water clarity (Piper et al. 2020, loonproject.org 2023). Here in Vermont, we know of at least one case where decreased visibility after the July 2023 flooding contributed to a loon chick death. Bottomline: loons need clear lakes to feed successfully, and wakeboats jeopardize water clarity.

Finally, I worry about the difficulties of enforcing regulated distances of operation; it only takes one boat straying closer to shore to flood a nest. Wakeboats that get closer than the 500-foot buffer could produce waves in excess of 8–10 inches, which would wash out loon nests and contribute to more severe erosion and impacts on water quality.

Joe's Pond Loons

Two loon pairs nest on Joe's Pond. The inlet pair in the northwest section of the lake has nested in three locations since the 1990s, including a small island, in the marsh further up the inlet, and on a raft along the inlet channel. The island site has direct exposure to the main lake. The pair has used the raft site more than the others. The second pair has nested on a peninsula in the far southeast section. This pair will bring their chick to the main lake in the middle of the summer. A third pair could form near the wakesport area in the future.

Wakesports are, without question, an additional stressor on loons, other wildlife, and lake water quality. I urge ANR to prohibit wakesports on Joe's Pond.

Sincerely,

Eric Hanson

Vermont Loon Conservation Project Biologist, Vermont Center for Ecostudies

From: Federation of Vermont Lakes and Ponds <vtlakesandponds@gmail.com>
Sent: Thursday, December 12, 2024 3:46 PM
To: ANR - WSMD Lakes
Subject: Wakesports - Joe's Pond
Attachments: Joes Pond Comment 12.12.24.pdf

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Attached please find a comment from the Federation of Vermont Lakes and Ponds on the petition to ban waks sports on Joe's Pond.

Thank you,

Pat Suozzi
President
Federation of Vermont Lakes and Ponds



The Federation of Vermont Lakes and Ponds, Inc.
P.O. Box 766
Montpelier, VT 05601
www.vermontlakes.org

December 12, 2024

Jason Batchelder
Commissioner, Vermont Department of Environmental Conservation
1 National Life Dr.
Montpelier, VT 05602

RE: Joe's Pond Association Petition to ban wake sports

Dear Commissioner Batchelder,

The Federation of Vermont Lakes and Ponds, a coalition of volunteer lake associations, is dedicated to fostering environmental quality standards and to the protection and preservation of Vermont's lakes and ponds.

The petition submitted by the Joe's Pond Association points out that the designated wake sports zone is in the broadest and deepest portion of the lake. This is a busy area of the lake used by swimmers, paddlers, anglers, and sailboats. Wake sports would make all of these uses nearly impossible in this part of the lake. In particular, this area is heavily used by sailboats. The very large waves created by wake boats in wake sports mode would be especially disruptive to sailing. Those large waves would also endanger all other users in this part of the lake as well adding to shoreline erosion.

In addition, the wake sports zone – a mere 54 acres – is one of the smallest designated zones on inland lakes. Yet due to the shape of Joes Pond, it encompasses the entire southern section of the lake practically precluding other uses if a wake boat is operating in wake sports mode there.

Furthermore, the large wakes that these boats create along with their potential to spread aquatic invasives can

- pose safety hazards to other boaters, anglers, people in the water or near-shore, on docks or moored boats;
- significantly increase the risk of lake-to-lake aquatic invasive species spread due to large capacity ballasts that cannot be fully drained of water and are effectively impossible to inspect or decontaminate;
- erode shorelines, undercutting trees and other vegetation, resulting in nutrient and sediment influxes that degrade water quality;
- inundate the nests of loons and other waterfowl; and,
- disrupt wildlife habitats and wetlands.

Every lake is unique. As the DEC website states: *“Each Vermont lake and pond formed under unique conditions in diverse locations; no two lakes and ponds are alike.”* For this reason, it is important to allow modifications of the Use of Public Waters Rules based on the unique characteristics of particular lakes. While a “one size fits all” rule can set a minimum standard, it does not necessarily work for all, given the many differences among lakes and ponds.

*To preserve and protect Vermont's lakes, ponds, and their watersheds
for the benefit of this and future generations.*

In their petition, the Joe's Pond Association provides a detailed explanation of the harm that allowing wake sports on this lake would cause. The Federation supports this petition.

At the same time, we urge DEC to fully implement the home lake rule as well as to develop stringent decontamination protocols to protect those lakes that will continue to permit wake sports.

Sincerely,

Pat Suozzi
President
Federation of Vermont Lakes and Ponds

From: Grant Currie <staff@grantcurrie.com>
Sent: Tuesday, December 17, 2024 9:36 AM
To: ANR - WSMD Lakes
Subject: Wakeports comment re: Joe's Pond

You don't often get email from staff@grantcurrie.com. [Learn why this is important](#)

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

To whom it may concern,

As a property owner on Joe's Pond, I am writing to lend my support to the banning of wakeboats on the pond. Although I am sympathetic to the interests of wakeboaters, I feel that Joe's Pond simply is not at all suited to their use.

Although according to the rules as currently written, there is a small area in the main pond where wakeboats can operate, it is not a large enough area to make their proper use practical. And, very importantly, motorized boat use of any sort has a tendency to whip up phosphorous rich sediment at the bottom of the pond. This is most notable in the northern part of the main pond - north of the region where wakeboats are currently within the current rules free to operate - where the waters are MUCH shallower. This is the area of the pond where my property is located and I can easily see where motorized boat activity of any sort anywhere near or within that zone whips up sediment taking the water from quite clear to quite murky. And, it is this northern area of the pond where wakeboaters are likely to stray if they do not adhere very strictly to the very limited area where they are currently free to operate.

Wakeboat activity on the pond is fairly minimal at this point since it is a body of water that is impractically small for its enjoyment. But, that activity is bound to increase as wakeboat interest rises and other lakes ban their use. It would be best to eliminate their use on Joe's Pond as early as possible before their use on the pond takes hold.

There are other bodies of water in Vermont more suited to wakeboat use. It is important to protect smaller bodies of water against the damage they can do.

Thank you for your consideration of the matter!

-grant

Grant Currie
52 Meadow Lane
Cabot, Vermont (Joe's Pond)

From: Gretchen Farnsworth <gretchenfarnsworth@tds.net>
Sent: Tuesday, December 17, 2024 2:37 PM
To: ANR - WSMD Lakes
Subject: No wake sports on Joes Pond

[You don't often get email from gretchenfarnsworth@tds.net. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

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ANR

I am a year round resident on Joes Pond and I am very much against the use of wake boats on our small pond. If I remember correctly around 75% of tax paying property owners that live on Joes Pond are also against the use of these destructive boats when we held a vote two years ago.

Our lakes rivers and streams have been under siege most notably the last two summers in Vermont. Why is ANR allowing boats that damage the shorelines, dredge up pollutants from the bottom of the pond and create unsafe conditions for swimmers, small watercraft and wild life to operate on Joes Pond. Millfoil was discovered on Joes Pond this summer and I'm sure that it's spread will be greatly increased with the intense wave action caused by wake boats.

ANR should stop usage of wake boats on our pond now before they are so entrenched on pond that it will be too late to get rid of them. We as land owners on the pond need to apply for permits to alter our shore lines in anyway but you are allowing boats to undermine the waters edge due to the wave action they cause. That makes zero sense to me. As a tax payer and a resident I am urging you to prohibit wake boats for operating on Joes Pond. ANR is supposed to be protecting our waterways in Vermont please do that.

Gretchen Farnsworth

From: James Farmer <agricolajbf@gmail.com>
Sent: Monday, December 23, 2024 9:06 AM
To: ANR - WSMD Lakes
Subject: Wakesports at Joe's Pond

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My name is James B. Farmer and I appreciate the opportunity to submit these short comments regarding the issue of wakeboat use on Joe's Pond. I have read and completely endorse the lengthy and knowledgeable comments on this topic submitted by our neighbor, David Kidney.

My sister, Kathryn M. Farmer, and I own a camp on Joe's Pond that has been in the Farmer family for 104 years. Kathryn and I grew up in St. Johnsbury and we have been enjoying our camp at Joe's for our entire lives (in my case, more than 77 years). Our children and my grandchildren are now enjoying summertime at Joe's (even though my son and his three-daughter family live in the Cleveland, Ohio area and my daughter and her daughter currently live in Paris, France, where she is assigned as a U.S. Foreign Service Officer).

I am concerned that the use of wakeboats on Joe's Pond will make it yet more difficult and potentially dangerous for young children to acquire the boating and independence skills that our generation acquired at Joe's Pond when we were young children. For most of the time that our family has owned our camp at Joe's, it has been possible for parents to put their children in small, non-motorized watercraft (rowboats, kayaks, sailboats, etc.) and help the children to first acquire basic boating skills but also, over time, to become sufficiently responsible that they could independently enjoy the water with their friends for longer periods of time. The presence of wakeboats on the pond, in addition to the jet skis and other fast watercraft already present on the pond, makes parents (at least in our family) yet more anxious about giving young children this kind of aquatic independence at an early age.

The presence of wakeboats on Joe's Pond also exacerbates my concerns regarding the recent discovery of milfoil on the pond. The shoreline erosion from wakeboats on the pond can only increase the likelihood that what now appear to be relatively small and contained colonies of milfoil will be churned up and disbursed more widely around the pond, making it far more difficult to control these invasive plants. The pond does not need extremely expensive wakeboats, affordable to only a few, threatening environmental damage which will diminish the enjoyment of all Joe's Pond residents.

Accordingly, I wholeheartedly support a ban on wakesports on Joe's Pond.

Thank you

James B. Farmer
874 Chestnut Street
Waban, MA 02468

From: James Stewart <jbstewart802@gmail.com>
Sent: Friday, December 13, 2024 9:29 AM
To: ANR - WSMD Lakes
Subject: Wakesports - Joe's Pond
Attachments: ANR testimony for wake boats.pdf

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

To whom it may concern:

Please accept my written testimony concerning wakesports on Joe's Pond. Thank you.

James Stewart
jbstewart802@gmail.com
802-349-3867
PO Box 15
Danville, Vermont 05828

December 12,2024

To the ANR:

My name is James Stewart and I own property at 310 and 379 North Shore Road on Joe's Pond. My family has had a camp on the pond since 1937. Joe's Pond (398 acres) is too small for the sport of wake surfing

My family owns a speed boat, a pontoon boat, sail boats, paddle boards, and kayaks. These types of water activities are considered 'normal use' of a lake and do not impact each other when they are on the water. The impact of a "normal use" of a craft on a lake is minimal as long as the operator of the craft obeys the rules. A wake boat following the new rules has a big impact on the lake and causes difficulty for the ability of 'normal use' crafts to be safely operated. The difference with the new sport of wake surfing is that the large and deep waves, created by these boats impact swimmers, kayakers, shorelines, and are a pathway for invasive species if the boat is trailered to different lakes. I have witnessed young swimmers having difficulty with these waves, seen the erosion of our shoreline, and kayakers/paddle boards and sailboats struggling to maneuver their craft while the sport of wake surfing is happening at the same time..

Joe's Pond barely met the 50 acre requirement and being 500 feet from shore. We have 54 acres in one spot in the 3rd pond that is turned into a washing machine when wake surfing is occurring. Joe's Pond is too small for this kind of activity. Joe's Pond consists of 3 bodies of water connected together and 2 of them (approx 100 acres) do not meet the 500 feet from shore nor 50 acres rules. The 3rd pond is larger but is only 298 acres (approx) and does meet the conditions for wake surfing. This not normal use activity takes up 50% of the 3rd pond and limits other 'normal use' activity from happening. No one in a kayak, sailboat, paddleboard, or water skier wants to deal with these large and deep waves.

Joe's Pond now has the Asian water milfoil invasive that we have been dealing with since late August, 2024. Anecdotal evidence suggests that a wake boat brought this as evidenced by the location of the large patch of milfoil found in August. If the State had funded and staffed the requisite department that enforces the home lake rule, Joe's Pond may have avoided this invasion. Until the 'home lake rule' is adequately funded and staffed, I believe wake surfing should be banned from all lakes.

In conclusion, wake surfing on Joe's Pond causes increased shoreline erosion, shuts down kayaking, paddleboarding, sailing, and endangers young swimmers in the south eastern half of the 3rd pond. Joe's Pond is too small for this sporting activity. Thank you.

James Stewart

jbstewart802@gmail.com

802-349-3867

PO Box 15, Danville, Vt. 05828

From: Jenna Bravakis <jennabravakis@gmail.com>
Sent: Friday, December 20, 2024 1:22 PM
To: ANR - WSMD Lakes
Subject: Joe's Pond Petition to Prohibit Wake Sports

You don't often get email from jennabravakis@gmail.com. [Learn why this is important](#)

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Hi,

I'm Jenna Bravakis. My mom's family has had a camp on Joe's Pond since 1958.

When I was growing up, I spent my whole summers living on the pond. Now I spend a large part of each summer there with my husband and three young sons. I love Joe's Pond and so do my kids, which is why I support the petition to ban wake sports on the pond.

Joe's Pond is too small for wake sports. The huge waves from these boats are scary. When they arrive on shore, they can knock over toddlers and small kids who are playing in the water in front of their camps. And forget about putting a child in a kayak when those waves come crashing to shore. Even when the wake boats are a long way off their wakes remain hazardous.

The new rule which permits wake sports on Joe's Pond confines them to the broad and deep part of the lake. The problem with this is that this is the most popular part of the pond for traditional normal users – swimmers, paddlers, anglers, sailors, tubers, and skiers. My family enjoys all these traditional uses. We sail, paddle, swim, and go tubing. With all these activities we want to be in the broad and deep part of the lake. My kids love to head there in our motorboat, wait to the depth finder reads 90', and then swim off the boat. They love to sail there with their grandfather. It is the only part of the lake where sailors can achieve a long tack. The rest of the pond is too narrow for this. My eleven-year-old son likes to kayak there, with his friends, to where the lake is big and inviting. And all my kids love to go tubing and the broad part of the lake is the only place to make the large sweeping turns that they like. And we are not alone, the broad part of the pond is the most popular place to be on the lake for normal users. Yet this special place is unavailable to us when wake sports are happening there. If we are about to head out on a boat and we see a wake boat out there, we stay ashore. If we are out on a boat and a wake boat arrives, we head back to camp. And this is true for most everyone on the pond. It is not fun or safe to be in the broad part of the lake when you have to deal with the huge wave created by wake surfing.

It really comes down to an issue of fairness. Is it fair that a small minority engaged in a non-normal elite niche sport can monopolize the most popular part of the pond to the exclusion of the traditional normal users who far outnumber them? The answer is clear – it is not fair and is inequitable.

It is also not fair that wake surfing spreads Eurasian milfoil and promotes toxic blue green algae. When I was a teenager, I was part of the first crew to work at the inspection station at Joe's Pond. Ever since then I have been committed to the environmental health of our pond. So, it makes me cry that Joe's Pond for the first time this past summer discovered Eurasian milfoil. Inspectors can check the outside of traditional boats, but not the ballasts of wake boats. It makes me cry that for the past few summers toxic blue green algae blooms have appeared in the cove right next to our wake surf zone. We are doing our best to eradicate the newfound milfoil and to stop the toxic blue green algae from blooming, but wake boats undermine these efforts.

I want my kids to have the same magical summer I did growing up on Joe's Pond. The only way to ensure this is to prohibit wake sports at Joe's. I implore you to do so.

Thank you,

Jenna Bravakis

From: Joanne Stewart <verthai@gmail.com>
Sent: Wednesday, December 18, 2024 5:51 PM
To: ANR - WSMD Lakes
Subject: Wakesports - Joe's Pond

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I am writing in support of the petition to ban wake boats on Joe's Pond.

The ruling currently allows wakesports on lakes with the minimum of 50 acres, 500 feet from shore. Joe's Pond barely makes the 50 acres limit. Due to the shape of the lake, our acres for wake boating fall in one almost "square" shape. Wake boats must go around in a circle, making a washing machine effect. Joe's Pond is just ***too small*** a lake for these large boats.

Also of concern is damage to our shoreline from wake boats, but more importantly I am very concerned about the transporting of invasive species to our beautiful lake. Newly discovered Eurasian milfoil and golden clams are both known to spread from ballast tanks on wake boats not completely emptied prior to being transported and entering another lake. Once invasive species become established, they do exactly what the name implies: they invade, and are extremely difficult to remove. Until the state is able to enforce the home wake boat rule, wake boats will continue to be a spreader of invasive species.

Thank you for your time, and attention to this very important matter.

Joanne Stewart
379 and 310 North Shore Road
West Danville, VT

From: Kate Chatot <kathleenchatot@gmail.com>
Sent: Friday, December 20, 2024 7:31 PM
To: ANR - WSMD Lakes; Dlugolecki, Laura
Subject: Joe's Pond Wakesports
Attachments: Wake Sports statement 12202024.pdf

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Sent from my iPhone

*Wakesports statement 12/20/2024
Agency of Natural Resources WSMD Lakes
Laura Dlugolecki*

My name is Kathleen Chatot. I'm a native Vermonter and a year round resident at Joe's Pond since 1999. Tho I was first introduced to Joe's when I was in the 6th grade and have immensely enjoyed open water swimming in Joe's throughout the years. Wakesports are new to us Joe's Ponder's. I first became aware of them 6 years ago when a wakesports wave came up over our master craft ski boat windshield and totally drenched us. What if it had been a 6 year old in a kayak?! Since then I've witnessed a wakesports wave beach a pontoon boat up onto a cement wall, non-motorized boats chose to remain off the lake if wakesports are occurring. Especially unfortunate due to the fact Joe's has a very small area eligible for wake boats and it so happens to be the deepest broadest portion of lake campers like to recreate in. From my dock I've witnessed how wake boats can't plane off and creates a visual barrier for anything in the water in front of the boats. I've witnessed the added challenge caused by wake boats including safety concerns, structural damage, shoreline erosion, disturbance of bottom sediments and poor conditions for non-motorized recreationist's.

Vermont's inland lakes are a fragile and vulnerable public resource, including Joe's. It's noted on your DEC Lake wise page "Vermont Lake Science from the National Lake Assessment Study shows that Vermont ranked lowest in the northeast ecoregion and in the nation for degraded shoreland. It further states shoreland disturbance can be directly related to degraded water quality and aquatic habitat. UNIQUE TO Joe's and noted in the 2012 and 2017 Cabot Town Plan Natural Heritage section the Vermont DEC's 1990 Lake Assessment noted "the size of the watershed in proportion to the lake indicates that 'the pond may reach a critical mass of nutrient/sediment loading beyond which water degradation may become apparent.'" It is now, as evidenced by the presence of excessive weed growth, silt, and cyanobacteria blooms. Of further concern is Eurasian Water Milfoil was discovered this summer and the DEC is currently helping the Joe's Pond Association with the formidable task to manage it.

Wakesports are yet another added degree of challenge. Please help by declaring Joe's ineligible due to this UNIQUE fact.

Science? A University de Montreal research study concluded wake surfing shouldn't be done within 300 meters (900 feet) from shore. Advocates of sport say that's not a peer reviewed study and only 60 meters (196 feet) required. A 2022 Marine Industry /study published by the Journal of Water Resource and Protection, a subsidiary of Scientific Research Publishing, which is considered a 'Pay to publish' organization headquartered in Wutan China. The study (also not a peer reviewed study, used a 145 hp boat (when actual wake boats can be several times more hp) and concluded minimal environmental impact at 200 feet in 10 ft of water? Yet a well- researched study by University of Minnesota St. Anthony Falls laboratory College of Science and Engineering (case.umn.edu/staff) indicates that wake boats need to operate at least 600 feet from shore for the wave energy to diminish to levels of a typical boat. Several studies, different results does not demonstrate. Rather, ONLY a vague assertion about minimal environmental impact.

Foremost, why did ANR reject DEC rec of 600 ft and change it to 500 ft and claim did so based on science? Especially when this 100 foot difference allows wakesports on several more lakes than would have been if 600 ft held. Including Joe's Pond - 600 ft and they would be banned. 500 feet and wakesports would be allowed.

I rely on the Vermont Department of Environmental Conservation's mission statement "to preserve, enhance, restore and conserve Vermont's natural resources and protect human health for the benefit of this and future generations" and the ANR's mission statement to protect, sustain, and enhance the state's natural resources for the benefit of current and future generations".

Of interest when the powerful for profit wakesports industry lobbyists were not present at Danville and Cabot municipal proceeding both Danville and Cabot Selectboard's and the Cabot Conservation Committee voted unanimously to co-sponsor this JPA petition requesting wakesports be banned on Joe's Pond. I

overheard one of the Cabot Conservation members say, "this is a no brainer" due to the existing identified challenges caused by wakesports regarding invasive species, safety, structural damage, shoreline erosion, disturbance of bottom sediments and poor conditions for other users such as paddlers, fisherman, etc. That they may only cause minimal environmental impact has not yet been demonstrated. I'm flummoxed why on heaven's earth it is necessary to cater to a powerful Wakesports industry and do so at what could amount to irreparable environmental cost?

Please help us protect our important natural resource of Joe's Pond.

Respectfully submitted,

*Kathleen Chatot
898 West Shore Road
Cabot, VT 05647
802-793-9818*

From: Kate Chatot <kathleenchatot@gmail.com>
Sent: Monday, December 23, 2024 9:19 AM
To: Dlugolecki, Laura
Subject: Fwd: Northern Vt. rivers get federal boost and wake sports @Joe's Pond

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Begin forwarded message:

From: Kate Chatot <kathleenchatot@gmail.com>
Date: December 23, 2024 at 9:14:13 AM EST
To: Agency Of Natural Resources Natural Resources <anr.wsmdlakes@vermont.org>, Laura Dlugolecki <laura.dlugolecki@vermont.gov>
Subject: Northern Vt. rivers get federal boost and wake sports @Joe's Pond

Volunteers and municipal/state/federal funds to protect Vermont waterways yet it appears counterproductive allowing added challenge(s) of assaulting wake sports on Joe's Pond and other Vermont inland lakes. Please ban them!

Thank you.

Kathleen Chatot

this link showing

<https://www.wcax.com/2024/12/23/northern-vt-rivers-get-federal-boost/>

Sent from my iPhone

From: Kim Kidney <kimberlykidney@gmail.com>
Sent: Monday, December 23, 2024 1:50 PM
To: ANR - WSMD Lakes
Subject: Petition to Prohibit Wake Sports on Joe's Pond

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Hi, My name is Kim Kidney. My grandparents and parents bought a small camp on Joe's Pond when I was two years old. I spent all my summers there as a child, as did my children, and now my grandchildren. I have seen many changes on the pond over the last 66 years - some good and some bad. The worst change has been the advent of wake boats on the pond. Such boats do not belong on the pond and should be prohibited.

From my perspective, as someone who spends from June through October on the pond, wake boats have a negative impact as follows.

-Wake boats usurp the pond from traditional normal uses. My family loves to paddleboard, kayak and sail. The grandkids enjoy tubing and swimming off the motor boat. When wake surfing is happening in the designated zone, the most popular and heavily used part of the pond, we do not engage in any of these activities. We do not go out when we see it happening. If already out we head in immediately when this activity commences. It would be unsafe to do otherwise. The humongous waves created by wake surfing are dangerous. They are scary for the adults and terrifying for the children. When I'm on my paddleboard I have to kneel down and hold on for dear life when a wake boat wave is approaching. In our sailboat we have to change course so that we hit the wave head on with our bow and even this is precarious. Our grandkids would not stand a chance in their kayaks should one of these waves hit them. They would surely be swamped or capsized. So, when wake boats are out we have to stay in. This is true of all our neighbors as well. There is no equity in this- in allowing an elite niche sport to usurp the designated zone on the pond, the only broad and deep part of the lake, from traditional normal users.

-Wake boats on Joe's Pond cause shoreline erosion. For 60 years we had a stone retaining wall on the water. When wake sports arrived our stone wall collapsed from their huge wakes smashing up against it. We had to have a new wall built with huge boulders. Wake surfing has caused significant shoreline erosion and property damage on Joe's Pond.

-Wake sports cause significant environmental degradation on Joe's Pond. It was only after wake boats appeared on the pond that cyanobacteria blooms started to appear every year in the cove adjacent to the designated zone, and eurasian milfoil was discovered. Wake boats are damaging the pond's water quality and this has to have a negative impact on our precious wildlife.

Joe's Pond is unique in that although it is idyllic it is also incredibly busy with traditional normal users. It is because of this uniqueness that wake sports need to be prohibited. It is just not fair to let them dominate the most popular part of the pond to the exclusion of all the rest of us. Please grant the Joe's Pond Association petition in order to best serve the vast majority of us.

Thanks,
Kim Kidney

From: Liz Sargent <lizsargent@charter.net>
Sent: Monday, December 23, 2024 12:28 PM
To: ANR - WSMD Lakes
Subject: Wake Sports & Joes Pond

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EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

I am one of the owners of the small island on Joes Pond. Please, please ban the Wake Boats on Joes Pond. The pond is not big enough for these big machines and they pose a huge risk to shoreline and people. Our little island has already lost a lot of ground because of motor boats, etc. and the wake boats are creating havoc and taking even more land.

The island has been in our family since 1955 and if the wake boats continue, there will be no small island! Look at pictures of what the island land was originally and now; you will see that it is quite different.

The fact these boats rise so far out of the water is a scary site and what a shame it would be if someone is killed and/or badly hurt because they are not seen! The long and short of it is: these boats do not belong on a body of water the size of Joes Pond.

Thank you for reading.

Elizabeth A. Sargent
529 Jamieson Rd.
Danville VT 05828
lizsargent@charter.net
802-748-1456

From: Iriegert <lriegert@alum.rpi.edu>
Sent: Monday, December 23, 2024 8:53 AM
To: ANR - WSMD Lakes
Subject: Wakesports - Joe's Pond

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EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

My name is Larry Riegert and I am providing my comments in support of the petition to ban wakeboats on Joe's Pond. My wife and I own a camp on 68 Edgewood Ave, which is located on the south side of the larger pond and directly adjacent to the authorized area for wakeboat operation. We have witnessed firsthand the impact of wakeboats on our shoreline and the subsequent erosion on our rock wall. More concerning is the safety issues involved with unanticipated large waves on individuals who are swimming, kayaking, and paddle boarding. We have seen several of our grandchildren being overcome with these large and unexpected waves.

There are only a couple of wakeboat owners on Joe's Pond compared to 270+/- property owners. Since the new regulation went into effect, it appears that all these boat owners are trying to work within the new restricted space. However, the waves generated and their impact on the shoreline and individuals seem the same compared to previous years. Joe's Pond is too small for these boats.

Thank you for considering the petition and reviewing my comments.

Larry Riegert
68 Edgewood Ave
West Danville, VT

109 Allen Dr
Milton, VT

802-777-5451

From: Michael Abadi <michael.c.abadi@gmail.com>
Sent: Monday, December 16, 2024 4:43 PM
To: ANR - WSMD Lakes
Subject: Support petition to prohibit wakesports on Joes pond

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Hello, please prohibit wakesports on Joe's Pond. The pond is too small and the present permitted acreage is absurdly small, making that area dangerous, also guaranteeing the area will not be adhered to. Shoreline erosion is real and please let us have our pond back.

Thank you

Michael Abadi

From: mikemorley11@gmail.com
Sent: Wednesday, December 4, 2024 11:38 AM
To: ANR - WSMD Lakes
Subject: Wakesports - Joe's Pond

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Wakesports – Joe's Pond

Joe's ponds are approximately 400 acres in toto. I use plural because "Joe's Pond" consists of 3 interconnected bodies of water. The 1st and 2nd ponds are not suitable for wake boats. This leaves the 3rd pond which is around 300 acres of which less than half fit the requirements for wake boats. This leaves about 150 acres.

Years ago, I spoke to a geologist who, as best I can recall, spoke of a fault line/ridge that ran west to east across the southern end of the pond. I believe he called it the Montpelier-St J fault. This explains why the deepest spot on the pond is south of that ridge towards its southern end.

North of that ridge, the pond is rather shallow, varying from 6 feet to about 20 according to my depth finder. The contours of the lake bottom there are very irregular with spots surprisingly shallow followed by trenches up to 20 feet.

In fact, there is one notable spot called "sunken Island" in the zone currently permitted for wake boats that is so shallow that my kids used to set up a net to play badminton there.

Because the map showing the allowed area for wake boats does not take into consideration the irregularities of the lake bottom north of the ridge, there are places where ecological damage will occur due to the angulation of the propulsion system of these types of boats. I can see lots of vegetation towards the tops of these ridges on my depth/fish finder.

Having spent 22 summers at the 3rd pond we've seen quite a difference in the last couple of years with the introduction of wake boats. For one thing, our existing retaining wall has fallen in and is in the process of being reconstructed.

We've noticed that the waves produced by these boats differ from those of other types of watercrafts. The crests tend to be higher, are farther apart, and continue to pound our shoreline for a much longer period of time than boats have in the past. They keep coming and coming.

Lastly, I want to mention that our own son has a wake boat, so we are familiar with them. But his is on a 7000-acre lake in NH (Squam). Even he does not use it in his portion of the lake which is about 400 acres in size.

Regards,

Michael Morley Franconia NH & Joe's Pond VT

(Hope this is the right email address for written comments on this subject)

From: Nicole Begin <ncbegin@gmail.com>
Sent: Thursday, December 19, 2024 8:15 PM
To: ANR - WSMD Lakes
Subject: Wake sports at Joe's Pond

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EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

My name is Nicole Begin. My husband and I recently purchased a year-round home on the pond; prior to owning this property, we owned a camp on Joe's Pond for five years. My parents also own a home on the pond and have been there for about fifteen years. Our entire extended family enjoys swimming, paddle boarding, kayaking, and pontoon boat rides during the summer and fall. We deeply care about the health of the pond and the people who use and love it, as we do.

I firmly believe that the use of wake sports is detrimental to the ability of visitors and property owners to use the pond in these "normal" activities. On two occasions, our pontoon boat was swamped when a huge wave, created by a wakeboat going by, washed up over the floor of our boat. I have also witnessed other boaters negatively impacted by the force of the wake created by boats in wake sport mode.

I support the petition filed by the Joe's Pond Association (JPA) and the Towns of Danville and Cabot, to prohibit wake sports on the pond.

I strongly urge the Agency of Natural Resources to support the JPA and the Towns of Danville and Cabot by prohibiting wake sports on Joe's Pond. I respectfully request that the Agency determine that, for the safety and best interests of traditional normal users, wake sports have no place on a pond as small and as busy as Joe's Pond.

Respectfully,
Nicole Begin

From: Paul Penar <paul.penar@gmail.com>
Sent: Tuesday, December 17, 2024 9:52 AM
To: ANR - WSMD Lakes
Subject: Wakesports - Joe's Pond Petition
Attachments: Wakesports - Joes Pond - Paul Penar comment.rtf; Wakesports - Joes Pond - Dorothea Penar comments.rtf

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Please accept these two written comments from my wife and I on this issue.

She spoke at the meeting.

Thank you.

Paul Penar

My wife and I own property on Joe's Pond at 14 Narrows Drive, West Danville. We support the petition to effectively prohibit wakeboats on the Pond.

My wife and I like to kayak across the Pond. We cannot predict when a wakeboat will appear, or go into "wake mode." I have been overturned in a kayak by a large wake in the past, and at 68 years of age, do not want to take any unnecessary risks.

We chose Joe's Pond 20 years ago because it offered an inland body of water which allows for a range of water activities, without concerns for sudden issues such as strong winds or large wakes. Typically, we have not been concerned by wakes, even by jetskis. But in wake mode, these boats create visual obstructions for the operators, and small surface craft can be missed.

If we allow wakeboats to operate in wake mode, we could anticipate more boats using that small area on Joe's Pond in the future, because of restrictions on other Vermont lakes. Not to mention the environmental hazards presented, with these boats thwarting our efforts to control cyanobacteria and milfoil. The Pond does not need additional stressors.

I strongly support allowing the residents of Joe's Pond to exclude at wakesports from the Pond.

Thank you.

Paul Penar
14 Narrows Drive
West Danville VT

Mailing address:
79 Sommerfield Ave
South Burlington VT 05403

email: paul.penar@gmail.com

802-598-9639

My husband and I own property on Joe's Pond at 14 Narrows Drive, West Danville. We support the petition to exempt Joe's Pond from having to allow wakeboat (WB) access, that is, we wish to prohibit wakeboats on the Pond.

Our support is based on the following concerns:

1. A 500 feet-from-shore limit, combined with the 20 foot depth requirement, would allow WBs to operate in a very narrow area of the Pond. We like to kayak across the pond, and a boat suddenly going into "wake mode" creates a significant hazard to those in gentler watercraft. There is no way to avoid their wakes. This creates an undue adverse burden on those nearby, and limits their use of the Pond. My husband and I are afraid to cross the pond when there is a lot of boating activity, and we had our pontoon boat "swamped" twice. I'm sure we are not the only ones affected.

2. Although there may be only a few wakeboats currently having their home base on the pond, there would be no limit to how many wakeboats could legally declare Joe's Pond as their primary home location. We could anticipate more boats using that small area on Joe's Pond in the future, because of restrictions on other Vermont lakes.

3. We are concerned about the health of the Pond. I am a volunteer cyanobacteria observer for the state. I have observed several cyanobacteria blooms over the last few years, especially in our cove. On one recent 4th of July, the bloom was so extensive, children had to be taken out of the water at the cove for their own safety. We understand that wakeboats are not the only causative factor, but why would we further risk the health of the lake by allowing yet another stressor such as a wakeboat that churns up sediment?

The same can be said about the recent issue of Eurasian Milfoil. Since we cannot legally limit access to the Pond, we have no control over "outside" boats not only bringing in invasives, but also may be spreading milfoil to other lakes. We have no practical means to wash boats as they enter, nor can anyone guarantee that the bilge of these boats will not harbor invasives. As you know, the churning of the water caused by any boating activity (wakeboats being an extreme example) can spread fragments of milfoil.

The Joe's Pond Association has worked tirelessly to mitigate environmental threats on the Pond. Please don't complicate our efforts.

For these reasons, we strongly support excluding Joe's Pond from all wakeboating activity. Thank you.

Dorothea Penar
14 Narrows Drive
West Danville VT
802-343-2132

From: Peter Watt <petergwatt72@gmail.com>
Sent: Monday, December 23, 2024 10:03 AM
To: ANR - WSMD Lakes
Subject: Prohibiting Wake Sports on Joe's Pond

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We are Peter and Marybeth Watt. We do not own a camp on Joe's Pond but have always spent a lot of time there canoeing and sailing. And for the past five years or so have rented two camps each summer for our large family to vacation on Joe's. We are very concerned about wake boats and their negative environmental impact on the pond and the danger they pose to traditional normal users. We urge the ANR to grant the petition to prohibit wake sports on Joe's Pond.

For all the many years we have come to Joe's it has been free of invasive species. It has a great inspection system at the boat access, which has helped to make this so. Tragically, this past August eurasian milfoil was discovered on the pond. We know that the Joe's Pond Association in conjunction with the State is doing everything possible to eradicate this problem. We are keeping our fingers crossed that they will be successful. However, we do not believe that this problem would exist on the pond were it not for wake boats.

From our understanding, when eurasian milfoil appears in a lake it is almost always by the boat access. This makes sense, because milfoil stuck onto a boat's body or prop would drop off once the boat enters the water at the access.

On Joe's, however, the milfoil was discovered far from the access on the far end of the third pond. It was discovered in an area in front of a camp that has a wake boat. From what we have heard, a wake boat that has been in and out of Lake Champlain, which is full of eurasian milfoil. It seems likely that this boat brought eurasian milfoil to Joe's in its ballast tank.

As we said, we are hoping the eurasian milfoil on Joe's can be eradicated or at least contained. If not and it spreads throughout the pond, we will have to look for a different lake for our summer rental. We very much hope that this does not come to pass.

Wake sports on Joe's Pond spread invasive species, promote cyanobacteria, negatively impact water quality and wildlife, and create safety issues for traditional normal users. When there are wake sports on the pond in the designated zone, our family stays away from there. None of us, especially our six grandchildren, are safe in a canoe, kayak, or sailboat, in the gigantic waves created by wake sports.

We liked Joe's Pond a lot better before wake boats showed up there. It is not the same idyllic place with those boats on the pond. Their negative impact can not be overstated. Therefore, the ANR should grant the petition to prohibit wake sports on Joe's Pond.

Thanks,

Peter and Marybeth Watt



 Reply  Forward

Add reaction



From: Richard Gagne <joesponder@gmail.com>
Sent: Friday, December 13, 2024 1:29 PM
To: ANR - WSMD Lakes
Subject: "WAKESPORTS" on Joe's Pond

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Firstly, I would like to thank the ANR for establishing a rule for the use of wakesports on Vermont's Inland Lakes/Ponds. Although my comments relate to Joe's Pond I truly believe that any small lake/pond should be protected with a stronger rule.

Joe's Pond is a very developed Pond (approximately 250 camps/homes) on a small body of water, approximately 398 acres. The acreage is split between 3 connecting tributaries. The large pond is the only part that has adequate acreage under the current rules. The area is a 54 acre spot, barely over the 50 minimum under the rule. It is located in the busiest section of the Pond. This poses a significant safety hazard in that area. The (lack of) maneuverability of a wake boat in wakesport mode is very difficult to navigate safely with the bow raised so high which increasing the risk of accidents or collisions. In an area as small as we have such a severe space congestion is an accident waiting to happen and should not be allowed on Joe's Pond at all.

In addition to the significant safety hazards the nature of wakeboarding truly disrupts the tranquility of our Pond. The powerful wakes from these boats churn up sediment which disturbs the delicate balance of our aquatic life of loons, fish, herrings, eagles and other creatures. They create an ongoing threat of AIS, including Eurasian Milfoil which was discovered for the first time on Joe's Pond this past year. The state scientists said the plants found were about a year old and well rooted. We are diligently fighting this invasion and continuing to allow wakeboarding on the Pond can only spread it further. It is imperative that we beat this invasion of Milfoil.

Wakeboarding does damage to docks and boats moored to docks. It disrupts the use of the Pond by "Normal Users" such as kayaks, paddle boards, canoes, sailors, swimmers, anglers. Wakeboarding is clearly not a "normal use", as stated by ANR.

Shoreline erosion is a given on such a small Pond. I had a stone retaining wall that was destroyed by the first wakeboarding on Joe's Pond several years ago. I spent considerable money to have the wall rebuilt. Since then we had 5 new wakeboats arrive and my newly rebuilt wall is caving in. (We currently have 2 or 3 wakeboards left on the Pond.) I have had 3 sinkholes develop that I have to fill in but the large rocks that have fallen over will require an excavator to fix. Can you imagine what shoreline is slowly being eroded if it does this to a stone wall? I mow my lawn and literally watch the wakes splash over my wall which is close to 3 feet high. THE IMPACT ON OUR DELICATE ECOSYSTEM CANNOT BE IGNORED.

Joe's Pond had a survey of its owners and the overwhelming majority believe they are harmful to our ecosystem and dangerous to normal users.

The ANR website has their mission statement on the first page. It is headed as "RESPECT. PROTECT. ENJOY." The last sentence of statement reads "...we must be responsible stewards for this and future generations." I could not agree more. Please, stay true to your mission statement.

Wakeboarding should not be allowed on Joe's Pond, or any other Vermont inland lakes. Surfing was meant for the ocean, unfortunately companies are building wake boats which make it available on lakes and ponds and though it may seem fun it is not meant to be for lakes/ponds. Also, they are only going to get bigger and more powerful.

Thank you for this opportunity to express my concerns.

Regards,

Richard Gagne
120 Sandy Beach Road
Cabot, VT

From: Rick Hackett <rwhackett@comcast.net>
Sent: Monday, December 16, 2024 4:00 PM
To: ANR - WSMD Lakes
Cc: David Kidney
Subject: Wakesports - Joe's Pond
Attachments: Wakeboarding written comments.docx

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See attached.

Richard Hackett
238 Old Coach Rd
Killington, Vt 05751

802 770-8801
rwhackett@comcast.net

Wakesports to ANR Regarding Joe's Pond

Richard Hackett

Joes Pond Resident since 1960

Activities: water skiing, paddleboarding, sailing, canoeing, mountain biking, snow skiing, to name a few

The large wake from wakeboarding and resulting negative impact from shoreline erosion is well studied and documented.

This statement from me addresses the SAFETY concern on small bodies of water and the negative impact on other recreational activities such as kayaking, paddleboarding, canoeing, waterskiing, sailing, etc. from the large waves from wakeboarding created from the wakeboard type boat. I have observed on several occasions these other recreational users tipping over, almost tipping over or falling from the impact of these enormous waves. Recreational users enjoying these kinds of activities are at significant safety risk created from these enormous waves, larger than mother nature creates, on these small bodies of water. From just a safety perspective only, I believe wakeboarding should not be allowed on Joe's Pond.

Thank You ANR/DEC.

Richard Hackett, 238 Old Coach Rd, Killington, Vt 05751

802 770-8801

rwhackett@comcast.net

From: Robert <rdouglasmac4@hotmail.com>
Sent: Sunday, December 22, 2024 11:11 AM
To: ANR - WSMD Lakes
Subject: Wake boats and Joe's Pond

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Good morning,

As camp owners on Joe's Pond, I am submitting our request to include Joe's Pond on the list of waterways that prohibit Wake Boats.

Our family has owned camps on the pond since the 1960's and we are seeing the increased risks first-hand that wake boats are creating. We have been on the lake in pontoon boats, canoes, kayaks and paddle boards and on several occasions have felt unsafe due to the large waves created by the boats. Family members have also mentioned the impact the boats have had on their fishing experience. This has never been an issue over the several decades our family has been on the pond, prior to wake boats being allowed.

As a camp and land owner I am also very concerned with the damage we have seen to our shoreline. Our stone wall that has been in place for decades, with no change in structure, has been slowly collapsing into the lake over the past few years, as the increased wave size from the boats crash against it.

In summary, I strongly suggest that the ANR votes to help protect the Joe's Pond that we have all known for decades. Before it's too late.

Robert and Andrea MacLeod
123 North Shore Road
West Danville, VT 05873

From: Ronald Bouchard <vtpondman@icloud.com>
Sent: Friday, December 13, 2024 11:24 AM
To: ANR - WSMD Lakes
Subject: Speaker Comment Transcript 12/12/24

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Transcript of comments made via Teams web by Butch Bouchard of Cabot on 12/12/24. TWO minute read _____ My name is Butch Bouchard and I'm a resident of Cabot on Joe's Pond.

I appreciate the time and focus that the ANR has spent over the past two years addressing this issue of protecting the locals and visitors that use our ponds and lakes. As an angler, sailor, swimmer and boater, I have experienced the risks that ballasted wake boats can cause, which is something I'd not encountered prior to a few years ago.

With the increased use of these types of vessels, even the simple joy of a pontoon boat ride around the pond requires steps be taken to avoid being rocked off your seat. I'm serious when I say that a wake boat, even operating under the constraints now in force at our lake, of keeping 500 feet from shore, can generate exceptionally deep waves all the way to the shore, that can cause safety concerns for even the sure footed folks who have grown up on these waters.

Although I do not paddle board, as a growing sport, I see many on a daily basis. I also notice that when the wake boats are seen by paddlers leaving from their docks, many tend to either turn around to get back home, or get as close to shore as possible to prepare for the inevitable dunking that all but the most experienced paddlers will be subjected to.

But let's not forget the kids. Some young children who go into the water, still rely on being able to touch bottom when swimming, meaning they are closer to shore and are the most susceptible to these waves. So anyone in the water swimming near shore and thus rafts, docks or boats can be easily tossed around and forced into objects. I have witnessed a young girl slamming into a dock she was next to. Despite their size and force, these waves are silent so sometimes people are caught off guard, especially for swimmers and kayakers that are closer to the surface of the water.

Take one look at a boaters magazine. Wake boats are not getting weaker or smaller. Larger and more powerful is their mantra. Thank you for your attention.

From: Susan Benoit <sukieb56@gmail.com>
Sent: Thursday, December 12, 2024 8:59 AM
To: ANR - WSMD Lakes
Cc: Dave Kidney
Subject: Wake boats on Joes Pond

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To whom it may concern,

I am a camp owner on Joes Ponds' third pond. I fully support the efforts to prohibit the use of wave boats on all of Joes Pond.

We had to rebuild our water front after Hurricane Irene devastated much of Vermont. We went through quite a lot of sweat equity and resources to rebuild. The waves that are generated from these wave boats come crashing on to our water front. It is very upsetting to see this happening to us.

I am very concerned about the newly discovered milfoil in Joes Pond. The wave action caused by these boats potentially can greatly disturb the areas that have been discovered and could contribute to the spread of the plants. We have a shot at irradiating the milfoil but not if these powerful boats are allowed to operate on our pond. They disturb the lakes bottom which could lead to the spread of the milfoil.

The waves are so large that they make it impossible to enjoy other water sports particularly paddle boarding, sailing, canoeing, kayaking and swimming. Trying to water ski over these waves is near impossible especially for youngsters learning to ski. A few should not be allowed to make enjoying and feeling safe on our pond impossible for the many.

I ask that wave boats not be allowed to operate on Joes Pond moving forward.

Respectively submitted,

Susan J Benoit
138 Clubhouse Circle
West Danville, VT 05873

55 Hale Street
Portland, ME 04103

207-650-5695

From: Suzanne Masland <suzmasland@gmail.com>
Sent: Sunday, December 22, 2024 11:40 AM
To: ANR - WSMD Lakes
Subject: Wake boats on Joe's Pond

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I live right above the third pond of Joe's Pond (for 13 years) and have both seen and experienced the negative impact that wake boats have on the pond.

Because I can see nearly the whole pond from my viewscape, I see what wake boats do to other boaters and the shoreline. It's drastic and disturbing. As a kayaker, I have also experienced being in the water, close to the shoreline when a wake boat goes by, sometimes very closely. I have been almost capsized even after sending a visual signal that they are too close. The wake rips up the shoreline to an alarming degree.

I support a ban of wake boats on Joe's because I believe it will help to protect our critical shoreline and have more people enjoy the pond. Thank you for your consideration.

Suzanne Masland
802-698-3252

From: T. Alex Bravakis <alexbravakis@gmail.com>
Sent: Sunday, December 22, 2024 8:34 PM
To: ANR - WSMD Lakes
Subject: Joes pond wake sports

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My name is Alex Bravakis. My wife's family owns a camp on Joe's Pond. She and I and our three sons enjoy spending much of our summers there. It is a very special place. It is because it is so special that I am in full support of the petition to prohibit wakesports on Joe's Pond.

There are several compelling reasons to prohibit wakesports on the Pond. I want to focus on the fact that the eligible zone on Joe's Pond is too small for wakeboats to operate safely. To operate safely wake boats need a minimum run of 3000 feet. This was the conclusion of the ANR, set out in its Final Proposed Filing, which was filed on January 3, 2024. This document, which was signed by Julie Moore, the Secretary of the ANR, proposed the current wake sport rule. It states, "a 50 acre minimum will allow for a minimum wakeboating run of 3000 feet". It goes on to state that this distance is necessary as it "allows for the wakeboat to be 200 feet from other vessels/swimmers without leaving the eligible zone". In other words, the ANR itself has concluded that all eligible zones must "allow for minimum wakeboating run of 3000 feet" to ensure safety.

The problem is that while this distance may be attainable in the zones on all the other lakes where wakeboating is permitted, it is not true on Joe's Pond. The ANR either failed to calculate or miscalculated the "run" on Joe's Pond. A correct calculation shows that a run of 3000 feet cannot be attained in the eligible zone on the Pond. The longest "possible" "run" is 2200 feet.

This is 27 % shorter than the distance the ANR concluded is required for wakeboats to safely operate. This being the case, wake sports must be prohibited on Joe's Pond. To do otherwise, would go against the ANR's own conclusion that 3000 feet is necessary to ensure wakeboats can safely stay 200 feet from traditional normal users and stay in the eligible zone.

The ANR should rectify its mistake and acknowledge that on Joe's Pond a "run" of 3000 feet is not attainable in the eligible zone. Once this determination is made, there is really no alternative but to conclude that the zone on Joe's Pond is too small for wake boats to operate safely. As such, the petition to ban wakesports on Joe's Pond should be granted. Pond.

Thank you for taking my comment into account,
Alex Bravakis

From: Thomas MacLeod <tmacleod9@gmail.com>
Sent: Monday, December 23, 2024 9:05 AM
To: ANR - WSMD Lakes
Subject: Wake sports on Joe's Pond

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Hello,

As a homeowner on Joe's Pond, I am requesting that the pond be added to the list of waterways prohibiting wake boats.

I have witnessed wake boats wake surfing outside designated areas and have video evidence of these violations which I am happy to share if needed. The large wakes they produce create unsafe conditions for other watercraft and disrupt fishing. On one occasion, a wave from a wake boat came over the bow of our pontoon—something that has never happened in all the years we've been on the pond.

I am also concerned about the environmental impact of wake boats. The turbulence they cause can churn up the bottom of the pond, which increases cyanobacteria blooms. Additionally, for the first time there was discovery of Eurasian milfoil and the wakes could contribute to its spread, further threatening the health of the pond.

To preserve the safety and ecological integrity of Joe's Pond, I strongly urge the ANR to take action before further harm is done.

Thank you for your consideration.

Sincerely,
Tom MacLeod
329 Old Homestead Rd
West Danville VT 05873

-

Thomas MacLeod
tmacleod9@gmail.com

From: Will Kidney <willkidney@gmail.com>
Sent: Monday, December 23, 2024 1:08 PM
To: ANR - WSMD Lakes
Subject: Joe's Pond Wake Sports

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Good afternoon,

My name is William Kidney. My family has owned a camp on Joe's Pond for 3 generations. I spent all summer there every year of my childhood. I now live in Burlington but still get to camp every chance I get. Joe's Pond means the world to me, which is why I am in full support of the petition to prohibit wake sports on the Pond.

Growing up on the Pond, my friends and I loved to wakeboard. I still do it occasionally. So, I understand why people like wake surfing. I would have loved it had it been around in the 90s. However, I would not have done it on Joe's Pond. The Pond is too small for wake boats when they fill their ballast tanks and create huge wakes. I know this because I have seen it firsthand. In addition to enjoying motorboats, I am an avid canoer and sailor. These activities are not compatible with wake surfing. It is simply not safe to be in any small craft when wake surfing is anywhere nearby. As a result, I do not go out on the Pond when I see a wake boat out there. And I head in immediately when I am out on the Pond and see a wake boat coming. Almost everyone I know does likewise. Whenever there is a wake boat in the eligible wake sport zone that area is off limits to traditional normal users. In that the eligible zone is in the most popular and well used part of the Pond, this is grossly unfair.

The eligible zone on Joe's Pond is too small for wake boats to operate safely. Wake boats need a minimum run of 3000 feet to operate safely. This was the conclusion of the ANR in its Final Proposed Filing on the current wake sports rule. It states, "a 50 acre zone will allow for a minimum wakeboating run of 3000 feet, which allows for a 3 minute run at 11.5 miles per hour (16.7 feet/second) before leaving the area eligible for wakesports and allows for the wakeboat to be 200 feet from other vessels/swimmers without leaving the wake-eligible zone." The eligible zone on Joe's Pond, however, does not allow for a minimum run of 3000 feet. Rather the maximum run on Joe's is only 2200 feet, which only allows for a 2 minute and 11 second run. Such a short run results in wake boats having to leave the area eligible for wake sports and does not allow for wake boats to be 200 feet from other vessels/swimmers without having to leave the zone.

When considering this, it should be kept in mind that even with a run of 3000 feet the actual wake surfing without a rope goes on for less than a minute. It takes more than a minute for the surfer to get up while holding the rope, get comfortably into the wake, and then release the rope. It also takes some time at the end of the run for the boat to slow down and the surfer to end the run by gently sinking into the water. To get in a solid minute of actual wake surfing you actually need a run of 4000 feet. (See Video of a Wake Surf Session at RWVL website http://responsiblewakes.org/?page_id=27). You get less than a minute in a run of 3000 feet. And with a run of 2200 feet, well the actual time wake surfing is too short to make it worthwhile. The result being that in the latter situation, wake boats leave the eligible zone in order make it worth the effort for their surfer.

The ANR recognized this in its Final Proposed Filing. It recognized that 3000 feet is necessary to ensure wake boats stay in the eligible zone and stay 200 feet from traditional normal users. It recognized that this distance is necessary to make sure wake boats do not endanger such users. Having recognized this, the ANR should conclude that the eligible zone on Joe's Pond is too small for wake boats to operate safely and grant the petition to prohibit wake sports on the Pond.

Thank you,

William Kidney

From: jim morris <bmpol426@yahoo.com>
Sent: Monday, December 23, 2024 1:09 PM
To: ANR - WSMD Lakes
Subject: Joes pond wakesports

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To whom it may concern

My name is Jim Morris I was born and raised here in Vermont and have spent summers since 1985 on Joes pond. I also have lived at the lake for a few years.

I have great memories as a child spending time on the lake swimming, fishing, water skiing, tubing, knee boarding. I have had several boats over the years and spent a lot of money on registrations and sales tax on those boats to be able to use the lake for the activities that my family loves so much. My parents own a house and a camp on the lake. In 2021 my wife and I purchased a home on the lake so that I could share some of the same experiences with my children that I did when I was a child.

In 2019 a friend of mine was visiting and had a wake boat and my 3 sons took interest and fell in love with surfing instantly. They did not want to ski or tube as much, they really liked surfing. My wife and I also started to surf because it was great exercise and much easier on the older bodies considering if you fall your only going 10mph. It was a big financial decision and commitment but we decided to purchase a new wake boat in 2020. I still remember my wife stating this is a lot of money and having to pay over \$7,800.00 in sales tax alone to be able to register the boat and use it in Vermont. I told her its ok lets spread it over the next 20 years and look at the memories we will make with our children and family. We spent just over 55 hours on the lake the first year and around 12 hours of it was surfing. Than in 2021 we started hearing about the statewide petition against wakeboats. I went to a meeting in Richmond and stayed active with the discussions and was very nervous if I was going to be able to keep using the boat at Joes pond. I was always very courteous and respectful mainly only surfing when there were no other boats on the lake and never once had anyone on the lake make any type of complaint. I would always stay 3-500 ft from shore mainly so I would not cause any type of waves to my fellow neighbors camps. My wife and I tossed the idea around of selling the boat in 2022 not knowing what would become of the petition and my children begged us not to sell the boat.

Once the state had taken the 2 years of collecting data, research and science to make a ruling it was a great relief that we were still going to be able to use our boat but that did not last long. At the start of the summer some campers decided they were not happy with the states ruling and wanted to ban the boats all together. I was informed that they were having a meeting in July to discuss a petition but it was never broadcasted that there would be a final vote on starting a petition to ban wake boats for good. Once at the meeting I realized that the majority of campers that did not want wake boats were mainly there and not a majority of camp owners. The president explained the petition and asked for comments. I stood up and asked my neighbors and fellow campers to try the new rule of staying in the wake sport zone that meets state requirements and that summer had just got started and to trust the states extensive research, data and science. There was many discussions arguing that it would not make a difference even though even members of the board agreed with me that we should try the new ruling before voting to ban the boats. They did a vote after some discussions where they had people stand up if you were for banning wake boats which there was not seats for everyone and a lot of people were simply standing because they did not have a seat. Than they told people to raise there hand if you were against the ban. I believe the vote was around 41 to ban and 26 not to ban. There is over 240 camps on Joes pond so this is only 25% of owners of camps at Joes pond. Not a majority of the camp owners are against wake boats just a select few.

I left the meeting very frustrated thinking that it did not come down to any of the wake boat complaints it came down to it that a small majority of campers simply do not like wake boats and want them gone.

There main complaints were

1-That there shorelines are going away because of the wake boats. I can honestly say after living at the lake and watching the

shoreline over the past 39 years that it has been slowly losing ground from mother natures ice and wind. It did not start or get any worse in the last 5 years since wake boats started showing up on the lake. My parents actually put in a concrete retaining wall in 1994 to try and stop the shoreline erosion.

2-Churning the bottom of lake. We have always surfed in over 25' of water even before the new ruling for the main reason there is no wave in shallow water. Now there is research showing that at those depths it is not bothering the bottom of the lake.

3-Safety issues. I have never seen anyone in dangered or overturned by big waves. My old ski boat made just as big of a wave tubing as my surf boat made. People swimming have never been in danger the waves are simply deciapated by the time they reach shoreline and no different than swimming in the ocean or when there is numerous boats on the lake tubing and skiing.

After many discussions with my wife and children we decided to sell our boat. We were scared that we would be stuck with a huge financial burden of owning such a exspensive boat and not being able to use it anymore.

So there was a total of 5 wake boats on Joes pond and now only 4..

Please do not take wake boats away for the future generations. They will not be able to have the chance to enjoy such a fun watersport. I truly believe that the states new ruling works great and people need to except change and let people enjoy the lake and not be restricted because of a small group of camp owners that just simply do not want wake boats. The water is owned by the state to be enjoyed by all and that is the way it should stay!

Sincerely
Jim Morris

From: Jack LaGue <jacklague@gmail.com>
Sent: Sunday, December 22, 2024 1:38 PM
To: ANR - WSMD Lakes
Subject: Wakesports Joe's Pond

You don't often get email from jacklague@gmail.com. [Learn why this is important](#)

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I am writing to oppose the petition by the Joe's Pond Association to ban wakesports on Joe's Pond. I don't wakesurf but believe that wakesurfers should be able to enjoy their sport on Vermont's public waters subject to sensible restrictions to protect public waters and other users of public waters. I believe that ANR did its homework in deciding the new wakesports rules, considering all of the factors claimed by proponents of a ban and that the new rules are a sensible balance of wakesport's enthusiasts' and opponents' concerns. Proponents of a ban are just looking for another bite at the apple since their arguments for a ban on Joe's Pond based on a 1,000' limit failed during the rulemaking process.

As was mentioned at the recent hearing, there are a total of 2 wakesurfing boats on the pond and in 2024 they rarely operated in wakesports mode that I observed. The petition is a proverbial solution in search of a problem by people who simply don't like the wakes that wakesports create and will say almost anything to convince ANR to ban wakesports on Joe's Pond.

Our family has had a summer camp on Joe's Pond since 1961 and I grew up there summers. My wife and I bought a camp on Joe's Pond in 2005 and we live there during the summer. In my 60+ years on the pond, I've spent a lot of time on the water; swimming, sailing and boating. In my experience, the opponents of wakesports grossly exaggerate the impact of wakesports on other users of the pond. Mr. Kidney, presenting the petition on behalf of the Association, claimed that when wakesports are operating that it "monopolizes" the 54 acre wakesports zone, precludes other normal uses and renders that area "unsafe and unusable". Poppycock. There is plenty of pond to accommodate all users, especially since wakesports are limited to 54 acres towards the south end of the big pond. Mr. Kidney also sought to make a big deal out of needing a 3,000' "straight shot"; if what he claims is true then wakesurfers will simply choose to practice their sport on other lakes with larger wakesports zones and the "problem" will solve itself. Also, the claim that the broad and deep part of the pond is the most popular part of the pond for other users is false. Other users have no particular preference since they can do their activities anywhere on the pond. I am a sailor and sail the entire big pond and have no preference for the wakesports zone over other areas of the pond. While there are certain times that the pond is busy with other users, the owners of the 2 wakesports boats just don't do wakesports during that period of time because it is too busy to make it enjoyable for them so the fact that the lake is sometimes busy is not a realistic factor..

I have purposely gone out on my jet ski when wakesurfing boats are operating to see how large the wakes really are and my personal experience is that the wakes are not excessively large as some claim. I have seen much larger wakes from boats that are not on plane running bow high or from boats making sharp turns pulling tubers.

Waves and wakes, no matter the source, are a part of boating. A good boater needs to pay attention to their surroundings. I occasionally see a large wake approaching when cruising around the shoreline on our pontoon boat and just turn into the wake momentarily and then resume course once the wake has passed. Easy peasy. It's just common sense. I can't recall any instances where this need to change course was a result of a wake generated by a wakesports boat but even if it was it is no big deal. If I don't respond to approaching wakes because I'm not paying attention and a wave rocks the boat it is my fault, not the fault of the boat that created the wake (unless the boat creating the wake passed too close, which is rare).

Proponents of a ban claim that wakes are a safety issue for kids and grandkids out on Sunfish, kayaks, paddleboard, canoes or other small craft but that claim also applies to all large waves and wakes. While I concede

that any argument that concerns safety of kids and grandkids engenders a lot of sympathy at first blush, in reality, situational awareness is required by all operators of Sunfish, kayaks, paddleboard, canoes or other small craft no matter what their age and our kids and grandkids need to learn the importance of situational awareness while on the water and how to handle large wakes and waves no matter what their source.

While I concede that many Joe's Pond Association members support a total ban, support is not universal and hardly "overwhelming" as proponents claim. At our July 6, 2024 Joe's Pond Association annual meeting we voted on whether or not the Association should petition for a total ban and 60 of our roughly 240 members (25%) who were in attendance voted on the issue. 42 (70%) of the members voting supported submitting a petition for a ban and 18 (30%) opposed. Were those 60 members in attendance representative of the entire membership? I don't know, It may have simply been a vocal minority whipped up attendance and the silent majority had better things to do that day. The claim of "overwhelming" support would have more credibility if the proponents or the Association had done more outreach and received input from more than 25% of the membership; but the proponents got the approval for the petition that they wanted so they looked no further.

At our meetings, in discussion preceding the vote, proponents of a ban made a number of false and misleading statements that may have skewed the vote. For example, they claimed that even if wakesports were limited to the designated area that was over 20' deep and 500' or more from shore under the new rules that it would stir up sediment on the lake bottom and cause more cyanobacteria blue-green algae problems. ANR considered this risk in deciding the 20' limit and the depth of propwash from wakesports. In addition, almost all of the designated wakesports zone at Joe's Pond is much deeper than 20' so the risk of wakesports in the designated wakesports zone stirring up sediment is negligible, but it was a great scare tactic to present to the members who didn't know any better and may have influenced the vote of those in attendance.

In summary, the problems caused by wakesports are grossly exaggerated by proponents of a ban that are just plain annoyed by the waves created by wakesport activities and want the waves out of their lives and don't really care about the rights of other users who use the pond differently. I encourage ANR to stay the course. Either reject the petition or defer action on the petition and allow the new rules to work for a few years. That is the most sensible thing to do balancing the desires of proponents and opponents of wakesports.

Sincerely,

Jack LaGue
38 Sandy Beach Road and 156 Sandy Beach Rd
Cabot, VT 05647

From: Amy Holibaugh <amyholibaugh@gmail.com>
Sent: Saturday, December 14, 2024 6:27 PM
To: ANR - WSMD Lakes
Subject: Wakeboarding

[You don't often get email from amyholibaugh@gmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

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As a swimmer, kayaker/SUPer, and camper, I do not support wakeboarding. Water skiing boats are already too much, but I'm grateful they're typically polite and aware.

From: Bern R <dulcimeralive@gmail.com>
Sent: Wednesday, December 4, 2024 7:40 PM
To: ANR - WSMD Lakes
Subject: Wake Boats

[You don't often get email from dulcimeralive@gmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

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Hi.

I am really glad to see that more lakes are being considered for wake boat restrictions. I haven't been on the water much the past year, but have seen them first hand on Lake Groton. I can't imagine the impact they are having on erosion of the banks, disruption of plant and aquatic life.

I understand folks like the high speed play, but to what end are we willing to allow for the destruction of the small lakes shorelines, birds, plants, animals, and I imagine noise!

I am in favor of adding the lakes I saw in the lists, as prohibiting wake boats. I feel the same about jet skis, although they look like fun. Sorry. We need to learn to care for our natural world, not keep dreaming up ways to destroy it.

Thank you.
Bern Rose
Barre City

From: Widness, John A <john-widness@uiowa.edu>
Sent: Wednesday, December 18, 2024 3:40 PM
To: ANR - WSMD Lakes
Cc: Tom Ward; Christine Cano; Meg Handler; danielr.sharpe48; Jim Clemons <jclemons435@gmail.com>; Diane Lehder; Eric Chittenden; Francine Chittenden; David Kidney; John Wooten; Brenda Plastridge; jeniferbandrews; Mark Johnston; JoAnn Hanowski; Stew Arnold; Chris Owen; wallbull3@gmail.com; Suzie Gesser; Susan Wilder; carmen.joespond@gmail.com; Richard Gagne; david bradshaw; Martha Winston; Jackie Sprague; Jim Lengel; Jennifer Hopkins; Jim Sawyer; Glenn Schwartz; Susan Martin; boatingbob867@gmail.com; Skip Marchesani; ed wells
Subject: Public comment re. Wakesports — New prop wash depth & safety data that apply to the nine petitions submitted to the ANR by the following 10 lakes: Caspian, Echo (Charleston), Great Averill, Little Averill, Fairlee, Shadow. Parker, Waterbury Reservoir, ...
Attachments: Lake Waramaug Final Report Nov 15 2024.pdf; Lake Waramaug Phase 1 Final Survey Results Presentation[6].pdf

You don't often get email from john-widness@uiowa.edu. [Learn why this is important](#)

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Dear DEC Staff:

On behalf of Responsible Wakes for Vermont Lakes (RWVL) as a public comment for the DEC pre-rulemaking process, we write to provide the DEC with newly released, relevant prop wash (aka slipstream or downwash) scientific and survey safety data applicable to all 10 Vermont inland lakes petitioning the ANR to prohibit wakesports. The new data were shared with us by Tim Tyre, Ph.D., the lead scientist for the Terra Vigilis Environmental Services Group. You may recall that Terra Vigilis' prior data from studies of wake boats operating in wake surf mode in Wisconsin were reviewed and included in the ANR wake sports rule implemented in April 2024. This group's latest studies were performed on [Lake Waramaug](#), a 656-acre lake occupying parts of the towns of Kent, Warren, and Washington in Litchfield County and located in west-central Connecticut. The study results are **attached** as 1) "*Lake Waramaug Wave Impact Study*" final report, and 2) "*Lake Waramaug Community Survey*" dated *April 2024*," which includes relevant safety data.

Prop Wash Depth Scientific Measurements. In the first of the **attached** Terra Vigilis reports, state-of-the art scientific equipment and analysis were employed to establish that a depth of *at least* 26 feet is required to avoid wake surf mode bottom disturbances, including the release of legacy phosphorous from the lake bottom. This study compares the wave impact of wake boats operating in wake surf mode to the impact of watercraft ski and cruising motorized boats. It was commissioned by and privately presented to the Lake Waramaug Inter-Local Commission on November 15, 2024. These results were only released to the public this week. With its release, we ask that these new data be evaluated by your DEC scientific team and incorporated into the DEC's [Vermont Use of Public Waters Rules](#) (UPWR) by increasing the minimum depth for wake boat operation to 30 feet (7.92 meters). The 30-foot minimum depth is justified not only by the Lake Waramaug prop wash data but also based on the application of the "[Precautionary Principle](#)." We include the Precautionary Principle as an important consideration in the new minimum depth requirement because the scientists in this study did not consider small incremental depths greater than 26 feet. Furthermore, we were informed by Oliver Pierson (when he was the VT DEC Watershed Division's Lakes and Ponds Program Manager) that the DEC *consistently* takes the Precautionary Principle into consideration when making UPWR changes.

RWVL anticipates that increasing the minimum depth requirement to 30 feet for the operation of wake boats in wake surf mode for all 10 of the petitioning lakes will almost certainly result in a smaller wake sport zone on all lakes. For some lakes, e.g., Joe's Pond and Waterbury Reservoir, we expect that a greater operating depth requirement will yield a revised wake sport zone that falls below the 50-acres required for wake sport activities. As a result, wake sports on such lakes would be prohibited, i.e., the exact outcome sought by the 10 individual lakes in their individual petitions.

Safety Survey information. The newly released safety data included in the **attached** April 2024 "*Lake Waramaug Community Survey*" describe significant wakesport safety concerns and document specific adverse encounters by individuals enjoying normal water recreational activities. A total of 759 individuals completed the survey. Of the 284 Lake Waramaug on-lake property owners, a high number and percentage (205 and 72%) completed the survey. Equally importantly, 537 — a high number — of the 3,400 *non-lake* property owner community resident lake users having a

vested interest in its condition also completed the survey. The concerns and encounters expressed about wakesports encounters are similar to those documented in the "[Boat Wake Impact Analysis](#)" study in Georgia: "... [69%] of survey respondents indicate an awareness that water quality and proper lake management to assure protection of the lake from both algae blooms and diminished water quality is an important issue related to property values." Furthermore, the Lake Waramaug survey results are consistent with the many safety concerns and encounters documented in our [RWVL wakesports ANR petition submitted in March 2022](#) and especially in our [Appendix A](#). Perhaps more importantly, these safety issues mirror and validate those reported during the DEC's wakesports public meetings on December 10 and 12, 2024.

Unfortunately, safety was *not* addressed by the DEC in response to the 759 written public comments received during the RWVL ANR petition process. As indicated on page 2 of the ANR's "[Responsiveness Summary for Wakeboat Rulemaking January 2024 \(rev. March 2024\)](#)," this was due to the fact that the DEC did *not* have the professional staff to adequately address safety. As stated in the ANR's Summary: "*The Agency expects that such petitions will demand particular focus on aquatic recreation and related safety planning—areas where current Agency staff does not have deep professional expertise. Therefore, **in preparation for consideration of waterbody-specific petitions, the Agency will explore retaining services of consultants with relevant expertise.***" Although the DEC has not yet confirmed they are prepared to address such wake sport safety issues, the UPWR require the ANR to "*protect normal uses on all lakes, ponds and reservoirs.*" Those uses cannot be adequately protected without a careful and rigorous assessment of safety issues. New data from Lake Waramaug – in combination with voluminous safety data from the Georgia survey – provide a solid, credible foundation for evaluating safety concerns. This safety evaluation must be applied at once for all 10 individual lakes petitioning ANR to exclude wakesports.

Sincerely on behalf of RWVL,

Jack Widness
Tom Ward
Jim Clemons
Christine Cano
Diane Lehder
Meg Handler
Dani Sharpe

P.S. A briefer summary of the Lake Waramaug study can be found on the [Town of Warren CT's website](#) as a PDF entitled, "[WAVE IMPACTS TO LAKE WARAMAUG: A Phased Study by Terra Vigilis Environmental Services Group, December 9, 2024.](#)"

From: Widness, John A <john-widness@uiowa.edu>
Sent: Monday, December 23, 2024 3:36 PM
To: ANR - WSMD Lakes
Cc: Mike Widness (mwidness@gmail.com); Meg Handler; Ginny Lawless; John Wooten; Francine Chittenden; Eric Chittenden; Glenschwartz620@gmail.com; danielr.sharpe48; Jennifer Hopkins; Jim Sawyer; Susan Wilder; ed wells; Skip Marchesani; Jamie Longtin; Mark Johnston; david bradshaw; ICE1 Paul Austin Husband
Subject: Public comment re. Wakesports — New prop wash lake depth & safety data relevant to all 10 ANR lake petitions: Caspian, Echo (Charleston), Great Averill, Little Averill, Fairlee, Shadow. Parker, Waterbury Reservoir, Willoughby Lake, and Joe's Pond.

Follow Up Flag: Follow up
Flag Status: Completed

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To the DEC:

We are individuals who care deeply about the health and wellbeing of Vermont's lakes and ponds. We write to submit new, relevant Agency of Natural Resources (ANR) pre-rulemaking wakesports comments. Our comments include **newly released scientific propeller downwash (aka "slipstream") lake depth and safety survey study data**. The new data include studies of wake boat surf operation mode in [Lake Waramaug](#), a 656-acre lake in Connecticut.

As part of the ANR's and DEC's statutory stewardship responsibility, we ask the DEC to consider and include this new information in the DEC review of the wakesports petitions for *each* of the 10 individual petitioning lakes: Caspian, Echo (Charleston), Great Averill, Little Averill, Fairlee, Shadow. Parker, Waterbury Reservoir, Willoughby Lake, and Joe's Pond. These data were reported by [Terra Vigilis Environmental Services Group](#) whose prior Wisconsin wake boat prop wash lake depth studies in were included in the DEC's minimum wakesports depth determination in the April 2024 [Vermont Use of Public Waters Rules](#) (UPWR) changes. The new Terra Vigilis relevant study results are found in two accessible documents: 1) "[Lake Waramaug Wave Impact Study Final Report](#)" with its scientific propeller downwash data; and 2) "[Lake Waramaug Community Survey April 2024](#)" with wakesports survey safety data.

Prop Wash Depth Scientific Data.

The "[Lake Waramaug Wave Impact Study Final Report](#)" utilized state-of-the-art science in establishing that a depth of *at least* 26 feet is required to avoid detectable wake surf mode lake bottom disturbances. Because this study was not performed at depths beyond 26 feet, it is uncertain if greater depths would also have generated disturbances. One important bottom disturbance documented was the release of legacy phosphorous following a single overhead wake boat pass in wake surf mode. Bottom disturbances were not observed with waterski and cruising boats.

The study results were released to the public only within the past few weeks. **With release of the new prop wash data we request that the study be evaluated by the DEC's review team and incorporated into the [Vermont Use of Public Waters Rules](#) (UPWR). We recommend an increase in the minimum depth for wake boat operation to 30 feet (7.92 meters) for the 10 petitioning lakes.**

The 30-foot minimum depth requirement is justified in considering the Lake Waramaug prop wash data with the "**Precautionary Principle**" — **a well established and important consideration because this study did not consider incremental depths greater than 26 feet**. Future studies are required to determine impacts at greater depths. The DEC has previously assured stakeholders that they *consistently* take into account the Precautionary Principle for all UPWR changes as appropriate.

Increasing the minimum depth requirement to 30 feet for wakesports will result in reducing the Wakesport Zones in all 10 petitioning lakes. If the DEC to accept the 30-foot recommendation, Joe's Pond and Waterbury Reservoir — where the respective [Wakesports Zones are 54.1 and 56.1-acres](#) — may have Wakesport Zones that fall below the required minimum 50-acres; wakesports would be prohibited on these two lakes. Furthermore, If the DEC adopted the 30-foot minimum wakesports depth all petitioning lakes would have their lake bottoms with their resident fish, bugs, and other organisms more protected.

2) Safety Survey information. The newly released Terra Vigilis safety data included in their "[Lake Waramaug Community Survey April 2024](#)" report describe significant wakesport safety concerns and document specific adverse encounters by individuals enjoying normal water recreational activities. A large number and percentage of the on-lake property owners surveyed (205 and 72%) completed the survey. The concerns and encounters expressed about wakesports encounters at Lake Waramaug were similar to those documented in the "[Boat Wake Impact Analysis](#)" study on Lake Rabun in Georgia where "[69%] of survey respondents indicate an awareness that water quality and proper lake management to assure protection of the lake from both algae blooms and diminished water quality is an important issue related to property values." The Lake Waramaug results were consistent with the safety concerns and encounters in [Appendix A](#) of the [RWVL 2022 wakesports ANR petition](#) as "*First-hand reports of adverse impacts*" Furthermore, these safety issues mirror and validate those reported on December 10 and 12, 2024 at the DEC's wakesport meetings.

Unfortunately, safety was *not* addressed by the DEC in their response to the 759 written public comments received during the ANR petition process (see page 2 of the ANR's Responsiveness Summary document, "[Responsiveness Summary for Wakeboat Rulemaking January 2024 \(rev. March 2024\)](#)"). This was because the DEC did not have professional staff to address safety; they indicated that it would address safety "***in preparation for consideration of waterbody-specific petitions.***" We hope that the DEC will perform a safety evaluation for all the 10 individual petitioning lakes.

In summary, we continue our challenge of the ANR to fulfill its rightful stewardship duty to protect our state's lakes and ponds for present and future generations and to evaluate the new Tera Vigilis prop wash and safety data as relevant "additional information" to be considered in a fair and proper response to the 10 petitioning lakes, and in the future as well as in considering changes to the recently adopted [April 2024 Wakesport Rule](#). We further ask that you consider both the Lake Rabun safety data and the just released Lake Waramaug data as you address safety concerns expressed in the petitions.

We Vermonters thank the DEC for your consideration of our request ... and for all you continue to do in protecting Vermont's environment.

Sincerely and respectfully,

Jack & Mike Widness
Meg Handler & David Kaminsky
Ginny Lawless & John Wooten
Francine & Eric Chittenden
Glenn & Cheryl Schwartz
Dani Sharpe
Jenn Hopkins
Jim Sawyer
Paul Austin & Susan Wilder
Ed Wells
Skip Marchesani
Jamie Longtin
Mark Johnston
David Bradshaw

From: Donald Houghton <don_houghton@yahoo.com>
Sent: Saturday, December 7, 2024 9:10 AM
To: ANR - WSMD Lakes
Subject: Wake boats on Vermont lakes

You don't often get email from don_houghton@yahoo.com. [Learn why this is important](#)

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I'm writing in support of the petition submitted to the ANR to ban - or severely limit - the use of wake boats on Vermont lakes - other than, perhaps, the largest ones, i.e. Champlain and Memphramagog.

I'm talking about the exaggerated impact that the use of these boats have on all that is within their radius as they're being used: the damage to the beaches, and the underwater environment; the loon population, that has made a comeback in the past years through the leadership of state biologist Eric Hanson; the waves produced by the boat have a negative effect on other boaters and swimmers who are trying to use the lake in a more ...gentle fashion.

I've imagined the effect of having only one boat on any lake being used for multiple purposes; if they're allowed, what would be the impact of having, perhaps, multiple wakeboats on any given lake at any given time. Seems to me that any other use would have to be postponed until they decided it was time to leave.

Please do not allow wakeboats to disturb the natural environment of the lake, nor the otherwise less impactful use of the lake by the general public.

Donald Houghton
PO Box 38
668 Urie Rd.
Craftsbury Common, VT 05827

From: fern25 (null) <fern25@aol.com>
Sent: Saturday, December 21, 2024 12:06 PM
To: ANR - WSMD Lakes
Subject: Wakesports

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Re: Crystal Lake

As I have previously stated, while not many voices rise from the shorelines of Crystal Lake, I ask that you still consider a solo or collective requests and concerns regarding our lake. An addendum to my previous email; If the requests from the lakes surrounding Crystal are approved , then that will leave our lake wide open for those other Wakeboats now looking for a new 'home' to use their boat in. To my understanding , as the regulation is presently written; "This provision states that, during the summer boating season, a wake boat cannot leave the same lake — its "home lake" — unless it is decontaminated by a service provider certified by the Agency of Natural Resources. Wake boats' ballast systems ..."

I assumed that meant the "home lake" was defined as a person who owned property on a lake and moored their own boat there. Only being able to use their WB on that lake and not trailer it to another lake"...unless it is decontaminated by a service provider certified by the Agency of Natural Resources. "

Unfortunately I realize that is not the case. Wakeboaters can indeed trailer their boats. After all, one lone person at the boat access asking the proper questions , does not mean the average boater will hand carry the proper certifications , if they used their craft on another lake, that their boat was inspected. Or simply state NO it was not. Truth? Who is going to know...

There will not be a system, cannot be a system to check and text ballast systems at the boat launch.

Please interpret this as Crystal will see a greater number of WBs if we are left out of the equation. We would be unable to go back and beg for new revisions for our lake alone.

Again, thank you for your consideration,
Lori Hayes
Williston VT
Seasonal, Crystal Lake Barton , VT

Sent from my iPhone

From: fern25 (null) <fern25@aol.com>
Sent: Saturday, December 21, 2024 9:36 AM
To: ANR - WSMD Lakes
Subject: Wakesports

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ANR.WSMDLakes@Vermont.gov

Re: Wakesports

As a property owner on Crystal Lake in Barton, VT , once again I am writing to state my concerns regarding the reconsiderations to be made on Wakeboat regulations on lakes, and ponds in Vermont. I am sure that each of you responsible for this very important decision have searched the web, looking for scientific research from other states faced with this newer mode of recreational transportation. Please see the attached articles below.

I ask that you consider including Crystal Lake in your reconsideration and allow for stricter regulations for our lake.

At this time Crystal seems to be the only one within these neighboring group of lakes that is not asking for reconsideration. I am guessing that the reason for this is mostly due to the fact that many who own property on the shoreline, live on the north end of the lake, in between the campground and Crystal lake beach. I have spoken with the recent past president of our association , who incidentally, owns land on the aforementioned north side, and he did not feel the Wakeboats affected his property. Truthfully, the northern end of the lake is often protected , waves usually do not come close enough to notice their effects on the shoreline, unless it is a weather related event.

The same does not hold for the rest of the lake. Our property is on the eastern side. Very close to the shoreline. I can literally watch the waves made from Wakeboats unprecedentedly rising and carving against the shoreline. Sometimes, precariously lifting our dock to its straining point.

Though Crystal lake is not being represented here by its association, I ask that you allow and consider my one voice as a call to warning ,and include our lake in your new conversation.

Ultimately, if you allow the other surrounding bodies of water stricter guidelines, then it is possible our lake will see more WB traffic. And more lakeside landowners might purchase a WB in the future. Risking the health of our lake by churning sediment , uprooting and spreading invasive species and eroding our shoreline, which the state DEC has established LAKEWISE programs to prevent just that. And last, but certainly not least, the concern for the other beings that share our shores and waters.

We are after all, stewards of this land and water.

Please consider the protection of the wildlife, our Loons, Beavers (who actually have homes within the rocks on Crystal). We know this, because we have Beavers who have been our neighbors for over 18 years. We can literally watch their comings and goings , their kits, and note the exact entrance between the boulders that are lake side. No, they are not climbing up into the woods to their hut, they enter underwater , only a keen observer , or a neighbor would notice. So please, I ask , even though I might submit the only letter from Crystal , add my concerns in with the other representatives of the surrounding lakes.

Just because there may not be any voices other than my own representing this lake, does not mean there are no environmental issues from WB on this lake.

Each of these lakes, including us, should rightfully be fighting .
Please listen and do the right thing for the future of our lakes and wildlife.
I thank for you time.

With Respect,
Lori Hayes
Williston, Vt
Seasonal resident of Crystal Lake, Barton , VT

<https://lmcd.org/wp-content/uploads/2022/06/Impact-of-Waves-Created-by-Wake-Boats-Canada.pdf>

https://cdalakepoa.com/uploads/3/6/4/3/36431208/technical_summary_finalpdf.pdf

Sent from my iPhone

From: Hayes Dunlap <hayesdunlap@gmail.com>
Sent: Monday, December 23, 2024 2:48 PM
To: ANR - WSMD Lakes
Subject: Lake Morey Wake Sports

You don't often get email from hayesdunlap@gmail.com. [Learn why this is important](#)

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Dear ANR,

I was fortunate to grow up on Lake Morey in Fairlee, VT. Lake Morey is a residential lake, small with a max depth of 43 feet and only half a mile wide. We've only just overcome a brutal cyanobacteria infection, and the lake is home to new loon chiclets as well as two children's camps and countless kayakers, canoers, and swimmers.

Wake boats are a threat to all of the above. They can, and will, swamp the loon nests and habitat, forcing them to leave permanently. Wake boats stir up sediment from the bottom of lakes like ours, raising the phosphorous content in the water, which is in turn, what encourages cyanobacteria blooms making the lake unsafe for swimming. They can capsize small boats, even ones close to shore as the lake is fairly narrow, and the children's camps regularly sail, swim, and boat on the lake, making it a dangerous place to have wake boats.

I encourage a 2500 foot buffer region between shore and wake boat, as well as a 40 foot depth requirement. Anything less will cause serious erosion and safety issues, among other negative impacts on the lake.

Regarding the current buffer requirements, I don't trust people to self-police how far they are boating from shore ((they have an extremely narrow corridor on our lake in which to surf), nor to clean their boats. We rarely have a policing presence on the lake, so Wake Sports enthusiasts will have no one to check or enforce the law, but without it, invasive species, damage to fragile shoreline, etc. will occur regularly by admitting wake boats.

Wake boats are too large and damaging for any of Vermont's Lakes except Champlain. And they should be restricted to the center of the lake.

Regards,
Hayes Dunlap
Ferncliff, Lake Morey, VT

From: Jay C. Dunlap <Jay.C.Dunlap@dartmouth.edu>
Sent: Wednesday, December 18, 2024 1:08 PM
To: ANR - WSMD Lakes
Subject: Re: wakesports Lake Morey

You don't often get email from jay.c.dunlap@dartmouth.edu. [Learn why this is important](#)

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Dear ANR,

Wakeboats are a scourge on Vermont lakes. They allow a privileged few to enjoy a temporary enjoyment at the long term expense of the majority. Wakeboats erode fragile shoreline that many residents have gone to great lengths, and expense, to preserve. ANR exercises enormous control over building near to lake fronts to preserve wildlife and water quality. Given this, it is inconceivable to me that ANR would not exercise similar control over artificial creation of wave-erosion and manifest damage to wildlife. Additionally there are obvious public nuisance and safety concerns.

I write to encourage a minimum 2500-foot (half mile) buffer region between the shore and a wake boat and a 40 foot depth requirement. I understand this will exclude such boats from virtually every lake in in Vermont excepting Lake Champlain and I believe this is appropriate.

Even a 2500-foot restriction ignores the danger wake boats pose to others enjoying a lake including especially kayakers, canoers, and those sailing small boats like a sunfish or laser. Even a 3 foot wave, small by wakeboat standards, poses a serious safety concern to any of these small boats. **Because of these safety issues, use of wakeboats on a small lake such as Lake Morey effectively excludes the major central part of the lake for use by others not in big boats.** This justifies the 2500 foot restriction as, otherwise, most small boaters will have to stay close to shore.

The need for depth requirement is less obvious until one considers the likelihood of disturbing the summer thermocline and mixing sediments on lake bottoms with the overlying water. Cyanobacterial spores on the bottom at 30 feet will not rise to the surface to grow until the late fall inversion of the water column unless disturbed by turbulence from a 600 horse power-driven propeller.

Lastly, you will immediately understand and appreciate, as does every lake resident, that any restrictions you place are virtually unenforceable. Once a wakeboat is on a lake, regulations will never have any impact except on those rare occasions when police are physically present on a lake. Here are some other examples of sporadically enforced rules: The requirement for less than 5mph speeds near shores in public swimming areas; the requirement for personal floatation devices in canoes or kayaks; the requirement that boats be thoroughly cleaned of invasive species before changing lakes; etc. A 500 foot restriction is a joke, and a bad one, as this will be routinely flaunted whenever it is inconvenient.

In summary there are 4 points:

1. Wakeboats contribute to shoreline erosion and pose a danger to shoreline wildlife, especially water nesting birds.
2. Wakeboats threaten safety of other boaters.
3. Wakeboats will contribute to dispersal of invasive species and will disturb sediments contributing to cyanobacterial blooms.
4. In the real world in which we live, restrictions are unenforceable and will only very rarely enforced and then will small fines. The only real way to prevent damage to most Vermont lakes is to restrict the use of wake boats to areas of genuinely open water, so far from shore that shore-based wildlife is absent and only vessels suitable for significant wave action are present.

Wakeboats are not compatible with Vermont's lakes. They should be prohibited from all lakes except Champlain, and then should be restricted to the lake center.

Jay Dunlap
Property owner,
Lake Morey
Fairlee Vermont

From: Jennifer J. Loros <Jennifer.J.Loros@dartmouth.edu>
Sent: Monday, December 23, 2024 2:41 PM
To: ANR - WSMD Lakes
Subject: Lake Morey, Fairlee, Vermont

You don't often get email from jennifer.j.loros@dartmouth.edu. [Learn why this is important](#)

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To whom it may concern at ANR,

I am writing to strongly oppose the use of wake boats on any body of water in Vermont. They are an ecological nightmare. I have written several letters, as have so many others, in the last couple of years, and yet they are still going to be allowed on Lake Morey, where I am a lake shore property owner, as well as other lakes in Vermont.

A few of years ago we did extensive property renovations and the State made us jump through many hoops concerning the septic and leach field system we installed and the subsequent landscaping and rehabilitation of the property. And rightly so. We spent an enormous amount of money, working with a qualified engineer, to make sure the new system was as ecologically responsible as possible. We then landscaped with plants native to Vermont and the Northeast, including densely planting the lakeshore bank. We are trying to be model stewards of this beautiful lake, ensuring that several generations of Vermonters and others can enjoy it. You should be doing the same, but apparently you do not think the integrity of our lakes and shore fronts are important. You have heard all the arguments on why and how wake boats will cause problems, from erosion, to the impossibility of enforcing rules, to the introduction of invasive species, so I will not re-list them here.

Please, please listen to your citizens and outlaw these damaging boats in our fair state.

Jennifer Loros
Property Owner
Lake Morey
Fairlee, VT

From: Larry Asam <larry@larryasam.com>
Sent: Tuesday, December 10, 2024 8:09 PM
To: ANR - WSMD Lakes
Subject: Wake Boats

You don't often get email from larry@larryasam.com. [Learn why this is important](#)

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Regarding wake boats, I very much support restrictions on their use. Along with all of the important comments about how dangerous and destructive they are, there is another consideration that comes to mind. It only takes ONE wake to destroy a loon's nest. Loss of habitat is a major contributor to our declining wildlife populations.

Thanks for considering my perspective.

Larry Asam

156 Sunset Dr.

Waterbury Ctr., VT. 05677

[802-244-7954](tel:802-244-7954)

From: Maggie Eaton <maggieeaton@icloud.com>
Sent: Friday, December 6, 2024 11:54 AM
To: ANR - WSMD Lakes
Subject: Stop wake boats!

[You don't often get email from maggieeaton@icloud.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

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Please accept this comment regarding the wake boat regulations.

I love kayaking and have kayaked in Vermont lakes for years. Wake boats can easily capsize kayaks and this risk forces us to avoid this healthy, environmentally safe sport where all we want to do is have a nice paddle, witness the wildlife, and calm our minds. Confining wake boats to larger lakes does nothing to reduce the risk and the spoliation that they cause. Kayakers and paddle boarders cannot predict where and when they will encounter wake boats, even if we hug the shores since the high waves they create travel even to the shore (which I have experienced at Lake Willoughby from high speed boats—the waves hit the shore and bounce back—a double whammy). And wake boaters don't always follow the restrictions including being on lakes where they are not allowed (whether it is because they don't know about the restrictions or intentionally break the rules because there is little to no enforcement). It's bad enough that we have to paddle hard to get away from fast boats and ski doos who too often don't slow down but the addition of wake boats makes the kayak and paddle experience nerve wracking. Why not regulate in favor of those who seek a safe, quiet, and environmentally friendly sport rather than an unsafe, loud, wildlife disturbing, and highly annoying "fun" activity. Please help Vermont protect our lakes from this awful intrusion.

Thank you for taking my comment into consideration.

Margaret Eaton
New Haven, VT

From: Marjorie Dunlap <marjoriedunlap@gmail.com>
Sent: Monday, December 23, 2024 3:05 PM
To: ANR - WSMD Lakes
Subject: Wakesports on Lake Morey

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Dear ANR,

I live on Lake Morey in Fairlee, VT and am writing you to ask for a minimum 2500-foot buffer between shores and wake boats. Wake boats cost at the very least \$20,000 at the lowest end, but most mid-range boats cost between \$60,000 and \$80,000. The median income in Vermont in 2023 was \$78,024. A ruling that allows wake boats in this state is not one that benefits most Vermonters, but a very few very wealthy individuals at the expense of everyone who wants to use these fragile and precious public resources in other ways. This ruling would be an inappropriate use of power by the Agency of Natural Resources and the Legislative Committee on Administrative Rules that will cost the public economically and ecologically.

Marjorie Dunlap
Lake Morey
Fairlee, VT

From: Mark N <m.a.nelson@live.com>
Sent: Wednesday, December 4, 2024 4:03 PM
To: ANR - WSMD Lakes
Subject: Wakesports

You don't often get email from m.a.nelson@live.com. [Learn why this is important](#)

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I am submitting my comments in support of initiating formal rulemaking under the Use of Public Waters Rules to prohibit wake boats on Vermont lakes. I am a frequent user of many of Vermont's lakes. I am in support of the Petitions for Caspian Lake, Echo Lake in Charleston, Great Averill Lake and Little Averill Lake, Lake Fairlee, Shadow Lake, Waterbury Reservoir, Lake Parker, Willoughby Lake, and Joe's Pond. Wake boats should be prohibited from Vermont lakes for the following reasons:

- Wake boats threaten loon populations on lakes where they have repopulated.
- Wake boats create a risk of spreading invasive species into lakes.
- Wake boats create dangerous conditions for paddle boarders, canoers, and kayakers.
- Wake boats can negatively impact the pristine conditions of lakes that may qualify for A(1) status.
- Many of Vermont's lakes provide wilderness like experiences. Wake boats negatively impact these experiences due their noise, pollution, and un-natural wakes created.
- Wake boats are in conflict with small fishing boats that are a tradition on many of our lakes.

Thank you for allowing me to submit my comments. Please work to protect Vermont's lakes for current and future generations.

Mark Nelson
Ripton

The wildlife, wild lands, and wild waters need our voices for their protection.

From: Moore, Julie
Sent: Tuesday, December 17, 2024 10:54 AM
To: Batchelder, Jason; LaFlamme, Pete; Austin, Jenny; Dlugolecki, Laura
Subject: FW: wake boating revisited

FYI – public comment.



Julia S. Moore, P.E. | Secretary (she/her)
Vermont Agency of Natural Resources
1 National Life Dr, Davis 2 | Montpelier, VT 05620-3901
802-828-1294 office
julie.moore@vermont.gov
anr.vermont.gov

Vermonters, businesses and communities impacted by the July 2024 flood should report damage to [Vermont 211](#). Find resources, guidance and referral information at vermont.gov/Flood. [Volunteer to help](#) or [donate to the Vermont Flood Response & Recovery Fund](#) to support all those impacted.

From: Gene White, Jr. <genewhitejr@gmail.com>
Sent: Tuesday, December 17, 2024 8:55 AM
To: Moore, Julie <Julie.Moore@vermont.gov>
Subject: wake boating revisited

You don't often get email from genewhitejr@gmail.com. [Learn why this is important](#)

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Dear Julie Moore,

Now that the issue is resurfacing, I am re-stating my opposition to wake boating FOR THE RECORD. For the sake of our waterways and those of us who utilize them reasonably, please reconsider the rules you devised; for one, please reconsider the 1000-foot rule, which would then effectively reduce the number of lakes where wake boats can be used. There are so few wake boaters and so many of the rest of us. This is not an "us or them" issue -- this is a common sense question of what's best for the environment and the greater good. I implore you to keep in mind the following time-tested maxim: Just because you *can* [wake boat], doesn't mean you *should*. Thank you for your consideration -- and please, do right by the citizens AND the environment. Sincerely,

Gene White Jr
Essex Jct, VT
802.316.6031

From: Nick <eckerracz@gmail.com>
Sent: Friday, December 13, 2024 1:01 PM
To: ANR - WSMD Lakes
Subject: Re: wake boat operation boundary criteria

[You don't often get email from eckerracz@gmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

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On Fri, Dec 13, 2024 at 12:46 PM Nick <eckerracz@gmail.com> wrote:

>

> I have been working with land surveyors and as a forester for the past
> 50 years. When setting points or looking for survey pins, I can
> roughly estimate the distance by eye from one point to another. With
> all that experience I am often off by many feet when walking on terra
> firma. It is absolutely unworkable to establish a distance criterion
> on the water. I don't think there is a person alive who can accurately
> measure 1000 feet from a shoreline while on the water, never mind
> being in a moving boat. Will you require that every boater have a
> laser distance finder so that he may stay a certain distance from an
> irregular shoreline? Even on large bodies of water the requirement to
> stay a set distance from the shore is unattainable and unenforceable.
> It is also impossible to set buoys delineating a distance on the large
> lakes as the water is too deep for permanent placement. And wake
> boats are banned from shallow water.

>

> The Agency is attempting to placate a very small set of boat owners.
> Vermont has prioritized protecting the the environment and curtailing
> the use of fossil fuels. Gas-guzzling boats and unenforceable
> regulations are not in line with that policy.

>

> Nicholas Ecker-Racz
> Glover, Vermont
> 802-497-4525

Good afternoon, my comments today are made on behalf of the Seymour Lake Association board and officers. Our comments are not only for the Averill Lakes petition but are applicable to all the petitions filed for banning wake sports. SLA fully understands why lake associations on the smaller 'wakesport eligible lakes" want to completely ban wakesports. The potential of multiple wake boats operating in wakesport mode at the same time on a smaller lake certainly could be untenable.

If we assume that the movement of wake boats between lakes will inevitably result in the transfer of invasives as most wake boats cannot fully empty their ballasts, we quickly conclude that this represents a peril for the diminishing number of inland lakes that are still free of invasives, of which Seymour is one.

There are presently only 30 Vermont lakes where wake boats can operate in wakesport mode. If the current petitions are approved, this number would be reduced by 10 (a reduction of 33%). This would likely greatly increase the wakesport activity on the remaining 20 lakes and cause an unacceptable risk and burden on these lakes to prevent the inevitable contamination these boats will bring.

The Home Lake provision is an essential component of the wakesport rule to protect our lakes from the transfer of invasives. While the provision is technically in effect, it has not been implemented as no system has been established for wake boat owners to be identified and then to declare a home lake or obtain a sticker for that lake. To our knowledge no action has been taken by the state to implement the provision despite repeated requests by lake associations to do so. It is imperative that this issue be dealt with immediately, either by implementing a temporary moratorium on non-home lake wakesports or by moving forward with full implementation of the Home Lake provision by next boating season.

It is the recommendation of the Seymour Lake Association that a final decision on the petitions to fully ban wakesports on any lakes be held in abeyance until the Home Lake provision is fully implemented to protect the remaining lakes.

Respectfully submitted,

Rhonda Shippee, President
Seymour Lake Association

From: Abe Prandini <abeprandini@gmail.com>
Sent: Tuesday, December 10, 2024 4:33 PM
To: ANR - WSMD Lakes
Subject: Wakesports - all lakes

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I am against the petition to limit wake sports on any and all lakes. Implementing the proposal will likely drive wakesports to memphremagog and other lakes, and increase boating traffic and likelihood for accidents on that lake. Lakes were meant to be enjoyed by all, not just those in canoes and kayaks and paddle boards.

Would the limit just be wake boats or will open bow rider boats towing water skiers be next? Will there be further restrictions on the lakes, similar as as to what we're seeing on lakeshore protection?

As you limit the number of lakes, you introduce an increase likelihood for boats to cross contaminate other lakes as boats are used in other lakes.

Any study performed will indicate some impact to wildlife from wakesports... I'm sure with thorough analysis and study it could be shown that kayaking, paddle boarding, and canoeing also would have an impact on wildlife.

Thank you

Abe Prandini

From: bdenny_anr@eastovershoe.org
Sent: Wednesday, December 11, 2024 8:48 PM
To: ANR - WSMD Lakes
Subject: Supporting Wakesports on Vermont Lakes

[You don't often get email from bdenny_anr@eastovershoe.org. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

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I'm writing to express my support for wakesports on Vermont lakes. I don't believe wakesports should be further limited beyond the restrictions already imposed, either through additional lakes being restricted or through additional sports being restricted.

Our lakes are a great natural resource and should be able to be enjoyed by everyone - not only kayakers, canoers, and paddleboarders, but also motor sports users. As a boater, I believe the vast majority of boaters are respectful, considerate, and appreciative of the environment and other users of our Vermont waters.

Please do not further restrict usage of our waterways; please continue to allow all users to enjoy the natural resources we are so blessed to have.

Sincerely,

Brett Denny
Stowe, VT

From: grilljoe@comcast.net
Sent: Friday, December 6, 2024 3:41 PM
To: ANR - WSMD Lakes
Subject: Wake sports in Vermont

You don't often get email from grilljoe@comcast.net. [Learn why this is important](#)

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As a frequent user of Vermont Lakes, I am writing to provide my input on the new Vermont Wake sports rules/regulations and the groups who are still wanting to push their agenda to ban wake sports from their lake of interest. There was a process that was followed to come up with the new rules/regulations pertaining to Wake sports on Vermont Lakes. The groups that are pushing to ban Wake sports from their lake of interest are sending information to like-minded people that is based on an opinion and not based on science or fact. Much of their argument regarding banning wake sports is pertaining to shoreline erosion, wildlife protection, safety concerns, transportation of invasive plants/animals, and various items that have not been proven to exist. The same arguments they are making against a wakeboard boat pertain to any large vessel, including many fishing boats that have live wells. I am not in favor of having any further restrictions placed on Wake sports on any given lake. Some of the restrictions that have already been included in the new rules pertaining to wakeboard boats and wake sports is ridiculous, in my opinion, as those boaters are being singled out as most of the rules that restrict wake sports on a lake would also apply to any large vessel launched on any given lake in Vermont. All large boats produce a large wake and there are no rules or restrictions regarding the size of boat that is allowed on most Vermont lakes. The rules and restrictions in the current law regarding home lake use and decontamination for wake boats is extremely unfair. Why are wake boats being singled out for those kinds of restrictions when there are no restrictions pertaining to any boat with a live well that travels from lake to lake in Vermont. The likely hood of a wake boat transporting invasive species is no different than any boat with a live well transporting invasive species. Our public lakes are there for all of us to use and not just the group of people who are not in favor of wake sports, wake boats, or any motorized boat on their lake of interest. People have opinions, myself included, but any further restrictions put on wake boats and wake sports on any Vermont Lake should be based on proven science and not someone's feelings. Our public lakes are there for all of us to use and putting further restrictions on wake boats/wake sports is something I am very opposed to. Please honor the current rules/regulations that have been established and if there is science-based information to regulate wake boats/wake sports further from a given lake then address it when there is science-based evidence to make a sound decision.

Thank you for your time, interest, and energy in dealing with these new rules and regulations.

Sincerely,

Joe Bourgeois
24 Wildwood Drive
Essex Junction, VT 05452

From: Mark Higley <MHigley@leg.state.vt.us>
Sent: Monday, December 23, 2024 10:10 AM
To: ANR - WSMD Lakes
Subject: Wakesports

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Dear Ms. Dlugolecki,

I would first like to introduce myself as Representative Mark Higley, representing the 8 towns in the Orleans/Lamoille district. I currently sit on the Government Operations and Military Affairs committee, but I'm also a member of LCAR the Legislative Committee on Administrative Rules.

You may remember that LCAR took extensive testimony on the new rules regarding wake boats. I was very impressed with the extensive report and testimony from the DEC members that presented the rules. Our own legislative council, Michael O'Grady, expressed in his comments, that he thought it was one of the more comprehensive studies he had seen done by an agency. In the end, the new rules are the strictest wake boat rules in the country.

I am sorry to see that many are trying to ban wake boats altogether, when this new rule has just taken effect in April of this year. It appears there was a lot of misinformation, about wake boats, presented by some at the meeting in Montpelier on December 12, 2024. Again, I appreciate what the agency has done in creating these rules, and would hope there would not be a total ban here in Vermont.

Some of my comments during the LCAR testimony was expressing "Access for All". I served, for five years, on the study committee, considering the Wild and Scenic Rivers designation for the Missisquoi and Trout Rivers here in the North. I was always motivated to make sure that this "Access for All" theme went along with this strict Wild and Scenic designation. In the end, I believe the designation, was supportive of this theme, and also did not go further by including all tributary's to these two rivers.

As an LCAR member, I also sat in on much testimony regarding the new trapping rules and hunting of coyotes with hounds. This was again, an attempt by the Fish & Wildlife Dept. to come up with rules regarding these activities that would be a balance to some wanting an outright ban.

I'm sorry to say, that the battle for the use of our lands, waters and other natural resources will continue. Please keep in mind the "Access for All" theme and hope the Legislature doesn't take it upon itself to enact a complete ban!

Thanks again for your consideration, time, and work on this issue!

Respectfully,

~ Mark
Rep. Orleans/Lamoille
802-744-6379

Sent from my iPad

From: steve wolf <laxsswolf@gmail.com>
Sent: Sunday, December 15, 2024 5:08 PM
To: ANR - WSMD Lakes
Subject: Wakesports

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Dear VT ANR,

My Observations on all of the current petitions to ban Wakeboat/ Wakesurfing and Wakeboarding on the Averhill's, Echo, Parker, Shawdow, Willoughby, Fairlee, Waterbury Reservoir, Joe's Pond and Caspian

Currently the State of VT now has the most stringent rules on wake sports in all of North America at 500' from shore and 20' min water depth which bans wake sports on 43 of the 73 lakes that allow power boats. Yet petitioners from "several" of the remaining 30 lakes in VT that currently allow wakesports under these already overly restrictive rules are trying to ban wake boats and wake sports on these additional 10 lakes which would drop the count to just 20 wake sport eligible lakes. My family and friends are totally against this taking of boater's and water sport participant rights on these public bodies of water entrusted to the citizens of VT in waters of the United States.

The Water Sports Industry Association (WSIA) representing competitive slalom skiers, recreational water skiers, wakesurfers and wakeboarders recommends 200' from shore when conducting wake sports in the deepest water available.

NH requires only 150' setback from shore and other vessels and no minimum depth requirement. This is the final result after being debated in the NH House and Senate during the 2024 legislature. The NH Senate proposed 200' in line with national WSIA recommendations. The NH House started with 500' /20' then was okay with 300'/no min depth, yet NH Senate did not budge from their 200' proposal so remained at the current safe passage law of 150' and no minimum depth. However, the watersports community and WSIA understands the lakefront owners concerns and still recommends 200' from shore with the surf side wave also be directed away from the nearest shoreline when in surf mode and stay in the deepest water possible.

In 2024 the State of Maine passed legislation requiring 300' from shore and a minimum depth of 10' (while wake surfing only and not wakeboarding) and in my opinion that should actually be the nationwide standard. Maine professionally arrived at this distance and minimum depth by engaging all the Stakeholders and prepared a comprehensive report to the legislature and the result was the current 300' from shore and 10' minimum depth of water enacted in 2024. Remember slalom skiing is 32 mph, wakeboarding is 21 mph and surfing is just 11 MPH maximum. Surfing is always a very slow and predictable speed and most always conducted in a straight line. Should be nothing surprising for others in the water kayaking, paddleboarding or swimming to predict where a wake boat is headed as it is so obvious (unlike say pulling a tuber or a turning water skier back into their smooth water line racing along at 32 mph!)

NY, MA & CT have no restrictions other than the standard safe passage laws

Wake sports participants and wakesurfing in particular understand they want and need to be in the deepest water to get the best push from the wave.

It seems as an observer of the live comments on December 10 and 12 that these well-organized people really believe they own these Lakes yet they don't as lakes are waters of the United States and for all to use. I believe I heard, there are no wake boats residing on one large lake (Caspian) and a wake boat has never even been

launched on that Lake yet they want to ban these vessels? That seems extremely strange. Another observation is many of the folks on the Teams call seemed to be well heeled/well-dressed folks from the DC area (probably attorneys) that may only be at their "Camps" for a couple months in the summer. They claim wake boat owners are rich because the boats can be \$150 k. This is not necessarily true. We can wake board and wake surf behind most any boat. I have been wakeboarding, wake surfing and water skiing behind an inboard direct drive ski boat since the mid 1990's. We simply load the passengers on one side to create a nice surf wave with decent push that can also be surfed across any lake without a tow rope. Wake surfing is not a new water sport at all, it's just more popular since the 2020 COVID shutdowns.

They also mentioned in testimony a few times that wake boats are loud. In reality, modern wake boats (inboard V-Drives) are not loud at all as these EPA compliant engines come standard with turn down exhaust pipes that discharge the engine noise and fumes deep below the surface to minimize any carbon monoxide to the wake surfers and other riders and are as a result quite quiet vs all other motor boats. They could be referring to non-responsible boaters blasting their tunes on tower speakers but most any runabout can also have a wake or tuna tower with tower speakers.

Of course, it is illegal to surf behind a boat with an exposed prop, like a runabout/stern drive I/O or Outboard engine. One can only surf on any inboard direct (ski boat) or V drive (wake boat) or the newer style runabouts with reverse sterndrive. In fact it is common to surf on direct drive ski boats by loading passengers on one side even without supplemental water ballast.

Doesn't seem much different than the skier vs snowboarder battles of the 1980's. But private ski areas can do whatever they want and most allow both skiers and snowboarders except one outlier Mad River Glen. The VT Lakes are for all citizens of the USA to use and enjoy since they are considered waters of the United States.

The Villainization against wake sports is grossly exaggerated with claims of shore erosion, lakebed damage, spread of invasives and safety of non-motorized sports. Wake surfing is geared towards older and physically challenged people that want to participate in watersports and attracts more people to VT to fuel the summer economy. To ban these sports is extremely discriminatory against this older class and physically challenged class of citizens. There are large and more numerous waves generated from other towed activities such as tubing in erratic patterns, any boat driving too close to shore at just over headway speed with bow up.

As a licensed hydrology and surface water hydraulics engineer, shore erosion is a legitimate concern. However, the largest contributor to lakeshore erosion is overdevelopment of the waterfront and natural factors such as wind, change in water level, ice out, Nor'easter endless spring days of 40 MPH westerly winds etc.

Wouldn't folks that own waterfront homes on nice lakes in VT considered the top 2-3% of all residents of the USA as well as the people that can buy a \$100 k surf boat and perhaps not be fortunate enough to afford or be given waterfront property by their heirs? Perhaps it would be more prudent to use our limited ANR resources to conduct mandatory state inspections of all lakefront property owners septic tanks and leach fields and if those do not meet current state regulations require immediate replacement or selling of the lakefront home/camp even if it was handed down by the great grandparents? Also like the new VT state 3-acre rule on stormwater treatment retrofits, let's require all lakefront property owners and the town roads within say 2,000' of any waterbody to provide full stormwater treatment to current VT ANR requirements on existing imperviousness (roofs, driveways and parking areas both paved and unpaved surfaces) including all the unpaved town roads that discharge their SW into the waterways. That would be a far better use of resources to improve and maintain pristine lake water quality.

In a nutshell, these anti-wake boat folks seem to be in a totally different world claiming the economic impact of banning wake boats is higher than not banning. A couple excellent examples against this incorrect assumption/misinformation would be to examine beautiful Lake Sunapee just over the border in in NH, some of the highest real estate values in the NE USA (far higher than most any lakefront properties in VT) and there are at least 100 modern wake boats docked at many of these Sunapee Lakefront estates. And without a doubt, Sunapee has some of the best water quality in New England. Banning wake boats would with 100% certainty

decrease real estate values there. Pleasant Lake in New London is just 600 acres with 10 full time wake boats. This very active lake community has an excellent balance between motorized and non motorized water sports. Both are very respectful of one another. Lakefront values again are extremely high on Pleasant Lake but over on Eastman Lake in Grantham where Power Boats are banned the values are not even 1/4 to 1/3 of Pleasant Lake. So the suggestion that allowing wake boats will cause property values decline is extremely flawed and another scare tactic that is totally inaccurate and actually the opposite of what happens when something is banned.

These claims by all these petitioners are simply fear mongering and misinformation. The state of VT ANR should not grant or even consider granting these ridiculous petitions to ban wake boats on these additional VT Lakes when the most stringent ban in all of North American already exists on 43 of 73 inland VT lakes that allow powerboats. Under current law, wake sports are only allowed on only 30 VT lakes yet allowed on 290 lakes in NH that have an average size of 427 acres and operating size of 300 acres at the WSIA's 200' recommended setback. Yet in NH the required setback is just 150'. Talk about crashing the VT's summer economy! Perhaps the goal of the lakefront owners in VT is simply lower property values and hence lower property taxes ? Please do not further restrict these amazing towed water sports any further in our great state of VT.

From: Suzi Pike <waterskiier_piker@yahoo.com>
Sent: Wednesday, December 11, 2024 3:43 PM
To: ANR - WSMD Lakes
Subject: Wakesports, Waterbury Reservoir

You don't often get email from waterskiier_piker@yahoo.com. [Learn why this is important](#)

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

I am writing in disagreement of the petition to ban all wakesports, not just from Waterbury Reservoir but any lakes these petitions apply to. Please don't let a few vocal, disgruntled folks take away the rights of the rest of us to enjoy the water. We should all have a right to be there and be able to get along. As a waterskier, I can say that when I see someone out wakeboarding I am not all that pleased, but I do know they have just as much right as I do, or anyone else, to be enjoying the water, and at least in my experience, as a group they tend to be more courteous than some other groups of people. I believe the more that gets banned from these lakes, the more this group of people is going to keep trying to get banned, until they get all motorized boats off the water. We all deserve to be able to enjoy the water.

Thank you,
Suzi Denny
Stowe VT



Terra Vigilis Environmental Services Group

Lake Waramaug Wave Impact Study

Final Report

Prepared for the Lake Waramaug Inter-Local Commission

November 15, 2024



Lake Waramaug Study 2024

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Lake Waramaug Study 2024

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Executive Summary

Introduction

In 2023, the Lake Waramaug Interlocal Commission (LWILC) with the jurisdictions of Kent, Warren and Washington, CT retained the Terra Vigilis Environmental Services Group (TVES) to conduct studies focused upon wave enhancing system impacts to Lake Waramaug. This project began in the Fall of 2023 and has included three phases. Phase 1 involved a survey of both on and off lake resident attitudes and opinions regarding recreational lake usage patterns, awareness of wave enhancing systems and their impacts, and a variety of regulatory options to preserve and protect the waters of Lake Waramaug. Phases 2 and 3 conducted during the summer of 2024 involved in-lake study of wave propagation features and propeller downwash impacts to both the surface and subsurface of Lake Waramaug. Commercial aerial and submersible drone technologies were deployed during these phases of the project.

This executive summary highlights the final report and findings contained therein.

Major Findings from the Lake Waramaug Resident Survey

The principle findings of the Phase 1 survey project showed a broad community interest and concern for preservation of the Lake Waramaug water quality and protection of this unique resource from environmental and recreational usage threats. Phase 1 survey data highlighted a focused concern for the impacts of large displacement waves to the lake. Survey data also revealed that approximately half of the residents that surround and live on the shores of the lake are unaware of specific large wave impacts to the surface and subsurface features of Lake Waramaug. The survey data revealed a large percentage of community members who are unaware of the local, state and federal regulations that govern safe boating practices. Importantly, a majority of community members support enhanced regulatory and or voluntary guidelines to be developed and used to protect and preserve Lake Waramaug. Safety concerns regarding the introduction of Wake Board Boats to the lake and the continued unregulated use of personal watercraft (PWC) were specifically noted as a safety factor to be addressed. Finally, the Phase 1 study supported a science-based study of in-lake wave impacts to better understand and manage this resource.

Major Findings of the In-Lake Study at Lake Waramaug

Phase 2 of the in-lake project involved a comparative study of wave characteristics and impacts to the near shore, lake bottom as well as sediment re-deposition events. Aerial imagery and surface measures of wave heights and wave energy were completed.

Comparisons between the wave characteristics of water ski boats, cruising boats and wake board boats in “surf mode” were accomplished. Wave propagation from boats operating at staggered distances from shoreline including 100, 300, and 500 foot distances were measured to establish both impacts and provide data on reasonable buffering distances so wave attenuation distances can be established on Lake Waramaug.

Wave Heights on average were at least 200% (i.e. twice, 2X) as high for Wake Board Boats in Surf Mode compared to Ski Boats at the same distances from shore. This results in Wave Energy from a Wake Board Boat in Surf Mode that is 400% (i.e. 4X) the amount of Wave Energy from a ski boat at the same distance. To dissipate the Wake Board Boat in Surf Mode wave to the same height and energy as a Ski Boat at 100 ft requires increasing the distance from shore to over 500 feet. This corresponds with results from other studies including: Marr (U of Minnesota), WEC, TVES-NLMD.

Phase 3 of the in-lake project involved measurements of, and imagery capturing evidence of deep-water propeller downwash. The study revealed impacts at depths of at least 26 feet for Wake Board Boats in surf mode. Comparative data did not reveal deep water propeller downwash effects from water ski or cruising boats. Deep water videography established fluid kinetic energy effects to the bottom sediments to include sediment re-deposition and nutrient (Phosphorous) release events for Wake Board Boats in Surf Mode during start-up and course pass operations. Again, these impacts were not seen with traditional water ski boats.

The final report also contained a detailed literature review of studies which have addressed similar large wave impacts in freshwater lakes in the Midwest, far West and Southeastern portions of the United States. Implications for lake ecosystems are described based upon these findings.

Appropriate references to studies informing portions of the current Lake Waramaug research are cited. Appendix A provides a summary of the resident survey executive summary and appropriate links are also made available.

1. Introduction

Terra Vigilis Environmental Services Group (TVES) was retained to provide a water quality and wave impact study for the LWILC. The scope of work included a three-phase study. The first phase was designed to determine community attitudes regarding water quality and large wave displacement impacts on surface and subsurface portions of Lake Waramaug. The second phase involved an in-lake study of large displacement wave impacts to the surface, subsurface, near shore and bottom sediments of the lake. Measures of wave energy, wave characteristics, wave attenuation distances were gathered. The third phase involved an in-lake study of propeller downwash depths to include videos of lake bottom sediment redistribution.

Lake Waramaug is a freshwater lake located in west central Connecticut. The lake is approximately 656 acres with an average depth of 22 feet and several deep sections at approximately 40 feet. The lake is 2.5 miles long and has a maximum width of 1.75 miles. The surface elevation of the lake is 692 feet. Flat portions of the bottom consist of sand, mud and organic muck. The surrounding topography is hilly, and the lakeside slopes are steep with slope bottom consisting of gravel, cobbles and boulders. TVES utilized a recent (2023) Bathymetric map obtained from LWILC to facilitate this study (See Figure 3).

Lake Waramaug is a drainage lake, fed by Sucker Brook, several small streams and ground water springs. The watershed of the lake is approximately 14 square miles with 74% of the watershed being forested. The remaining 26% is residential and commercial agricultural land (both livestock and crops). Lake Waramaug is surrounded by three communities including Kent, Warren and Washington. There are 284 Riparian owners of record on the lake and the surrounding number of community residents is approximately 3400. Shoreline development includes residential homes, seasonal cottages and several commercial entities (private clubs). Public access is available at the Lake Waramaug State Park located at the Northwestern end of the lake.

The introduction of Wake Board Boats to Lake Waramaug in 2015, prompted concern for large wave impacts, and possible water quality effects. The LWILC (combined jurisdictions of Kent, Warren and Washington), elected to conduct scientific studies on these impacts in order to inform policy-making regarding management of these impacts. The present study was designed to capture the extent of both surface and subsurface large wave impacts to better understand how it may be affecting Lake Waramaug. Commercial drone technologies have been employed in this project to capture imagery allowing ease in understanding these various impacts. Imagery is combined with traditional water quality measurements to further clarify and guide public policy management decisions for protection of sensitive lake ecology.

2. Literature Review (Large Wave Impacts)

The introduction of Wake Board Boats to the freshwater lakes throughout the United States began around 2010. The marine industry currently (2024) produces vessels with wave enhancing design characteristics allowing for the creation of large displacement waves of approximately 3-4 foot surface heights. The typical Wake Board Boat utilized for “surf mode” operations has three primary characteristics enabling large displacement wave production:

- 1) A powerful engine (350-500 hp)
- 2) Wave Enhancing (Shaping) Devices and ballasting systems
- 3) High bow angle, and low stern configuration (10-15 degree trim angle).



Figure 1 Wake Board Boat in Surf Mode

These vessels typically operate at 9-10 mph per hour to maximize large wave production. The spread of these recreational boats has been controversial, with increasing public concerns for wave impacts to other surface vessels, near shoreline, fish and waterfowl habitat and shoreline structures. These concerns have prompted scientific study which has produced a growing body of data supporting surface and subsurface wave and propeller downwash impacts. In particular, the studies reveal bottom re-deposition impacts from propeller downwash of wake board boats in surf mode. Nutrient release, bottom "scrubbing" damage, and related unseen impacts from powerful wave energy is reflected in this work. The bathymetric characteristic of a particular lake is a variable, with shallower lakes (less than 20 feet) showing more evidence of large wave impact.

Lake Waramaug Study 2024

The current project benefits from reference to additional studies being conducted in the Midwest, far West and Southern portions of the United States. These comparative studies have occurred on freshwater lakes with a similar focus upon large wave impacts to the near shore, lake bottom and wave energy comparisons between wake board boats in surf mode and traditional ski boats.

Water Environment Consultants, SC (WEC) completed a recent (2021) wave impact analyses on Lakes Burton and Rayun in the northeast corner of Georgia. In addition, the WEC group studied three of six lakes in a series of reservoirs created by the Tallulah River system (owned and operated by the Georgia Power Company). This work was completed in 2020-21.

The principal findings of the WEC project established that wake board boats in surf mode (Maximum ballasting, slow speed, high bow angle) produce a more powerful wave, with higher speed, height and energy resulting in a need for longer attenuation distances than waves produced from wake board boats in non-surf mode and/or traditional water ski boats. Longer buffering distances from shore and other vessels were recommended to manage these impacts.

Note to the reader: Wave energy is proportional to the square of wave height. A wave that is 2X in height has 4X the amount of energy. This formula was used in TVES calculations relative to wave energy. A similar method is used in the Marr data allowing comparisons.

An interesting comparison from the WEC work involving wind waves versus wakesurfing vessel wakes is also noted:

“Wakesurfing vessel wakes exceed wind waves at every site at distances within 500 feet of the vessel sailing line. In contrast, typical cruising vessel wakes do not exceed wind waves at every site, except within a very close proximity to the vessel, i.e., 75 feet”

Consideration for shoreline erosion was included in the WEC (2021) project. Although shoreline erosion is a complex predictive problem, influenced by localized conditions such as sediment properties, topographic slope, presence of hard structures and vegetation, the WEC study did conclude that wakesurfing and wakeboard boating vessels are much more likely to contribute to shoreline erosion than typical boat waves or wind waves.

Finally, the WEC study addressed shallow near shore areas for bottom scrubbing impacts by wake surf mode vessels. Risks for “slip failure” of the soils behind sea walls leading to bulkhead failures was reported. “Overtopping” effects based on excessive wave heights from the surf mode wakeboard vessels can also produce structural damage per the WEC (2021) data.

Previous studies by Terra Vigilis Environmental Services (TVES) on midwestern lakes (North Lake Management District, DNR Grant Funded, 2019-2021) have established similar impacts based on large wave energy by wake board boats in surf mode. TVES completed comparative studies of wave attenuation distances, bottom scrubbing, sediment redistribution and nutrient release events following wake surf mode activity. High energy wave features with bottom scrubbing impact and plume development are documented in the TVES 2020-21 data. Appendix B of this report contains excerpts of the relationship between water depth and wave behavior. Nutrient release (Phosphorous) into the water column has also been reported in the TVES work.

The University of Minnesota, St. Anthony Lab project (2020) headed by Jeff Marr and his research team, has also studied the impact of wake board surf mode impacts relative to wave attenuation distances, wave energy measures and propeller downwash depths. The Marr team has called for extended buffering distances of 500-700 feet from active surf mode vessels, and the research team is currently completing additional work measuring propeller downwash depths using sonar acoustic returns.

Alex Ray from Western Colorado University has completed a series of studies (2020-21) at Payette Lake, Idaho. This work has focused on the impact of propeller slipstreams (downwash) on lakebed sediments in Payette Lake. Based upon growing concern for nutrient load impacts to the waters of this large lake system, and specifically the risk of toxic blue green algae and other cyanobacterial blooms, the author studied non-buoyant jet streams produced by current model, powerful wake board boats in surf mode (ex: 2019 Axis T-23). Significant impacts from surf mode operations and their consequent slipstream bottom impacts on sediment redistribution were delineated in this work. See Figures 2 and 3.

“According to modeling results, wake boat slipstreams have the potential to affect bed sediments at 33’ of depth” Ray, 2021

Ray goes further by noting,

“Adding passengers and ballast also creates higher slipstream velocities, as it increases drag on the boat. Additionally, while most boats pass through the RPM band correlating to the highest slipstream velocities (during acceleration to planing mode), surf-boats are often continuously operated at the speed where displacement, slipstream velocities, and trim angle are highest.”

2019 Axis T-23
Max Slipstream Velocity: 4.21m/s @ 10.2 mph, 2500 rpm at propeller
(chart values in meters)

- Slipstream Velocity > .25m/s = 25cm/s = 1ft/s
- Slipstream Velocity > .4m/s
- Slipstream Velocity > .9m/s

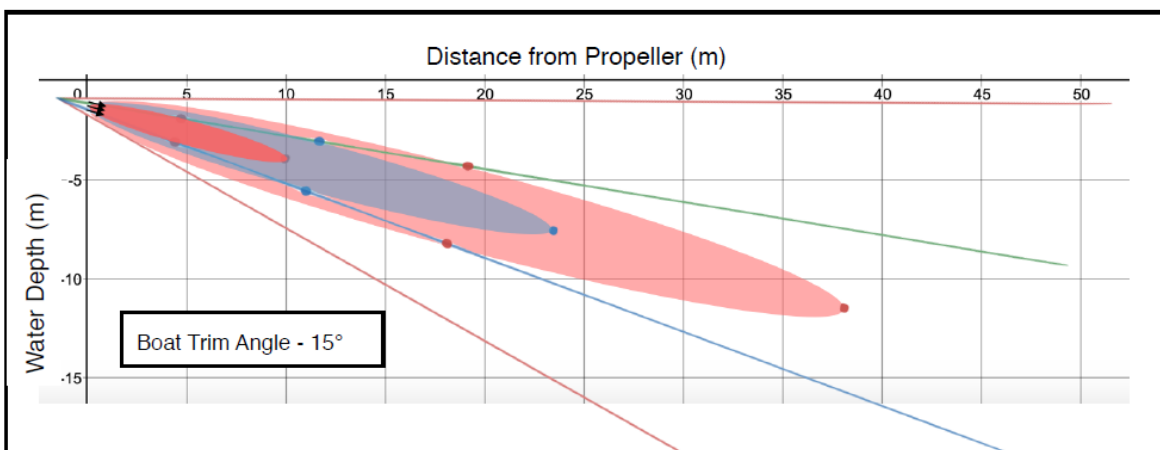


Figure 2 Slipstream Impacts Payette Lake. Ray (2021) Final Report, Payette Lake

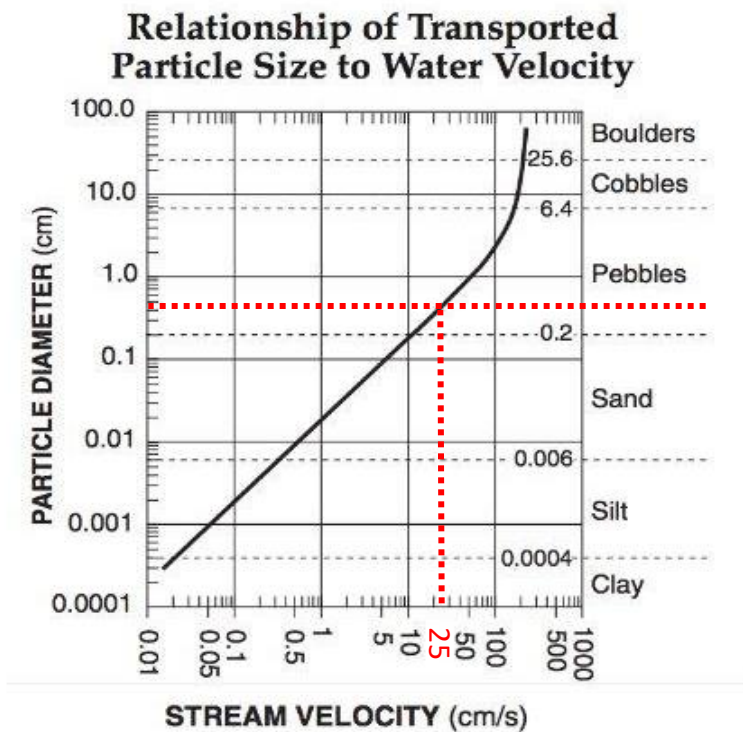


Figure 3 Sediment Redistribution: Slipstream velocity needed to move particles based on size

Lake Waramaug Study 2024

In summary, there is an impressive consistency in the studies being conducted which demonstrates larger, faster, high energy, large displacement wave risks across multiple areas including:

- 1) Surface threats to other vessels
- 2) Near shoreline disruptions
- 3) Bottom scrubbing effects
- 4) Shoreline structure impacts
- 5) Nutrient release events to the water column
- 6) Deep penetration propeller downwash effects
- 7) Wave attenuation distances prompting changes to traditional buffer distances

This final report of the Lake Waramaug project by TVES, also identifies examples from comparative studies of large wave energy surface and subsurface characteristics to underscore the consistency of these data.

3. Wave Impact Study Lake Waramaug, CT : Methodology

The Lake Waramaug study was conducted in three phases including:

- 1) A residential survey of attitudes and awareness of large wave impacts by the constituency surrounding and living on Lake Waramaug. (See Appendix)
- 2) In-lake measures of surface wave impacts (near shore) taken at both shallow and steep shorelines with waves generated at staggered distances from shore by vessels in common use on the lake.
- 3) In-lake subsurface measures of propeller downwash impact by Wake Board Boats in “Surf Mode” and typical water ski boats. Both start-up and buoy pass testing conditions were arranged as part of the study design at selected testing sites.

A combination of aerial and submersible drone imagery was used to measure wave dynamics as well as reflecting fluid kinetic energy.

Detailed description of the UAS devices (drones) used in the present study follow. In addition, the subsurface measurement equipment, camera specifications, certified laboratory analyses specifications and imagery preparation techniques are explained.

Together, these measures provide a clearer picture of large displacement wave impacts to Lake Waramaug and a basis for comparable recreational lakes where wakeboard boats in surf mode operations are occurring.

Lake Waramaug Study 2024

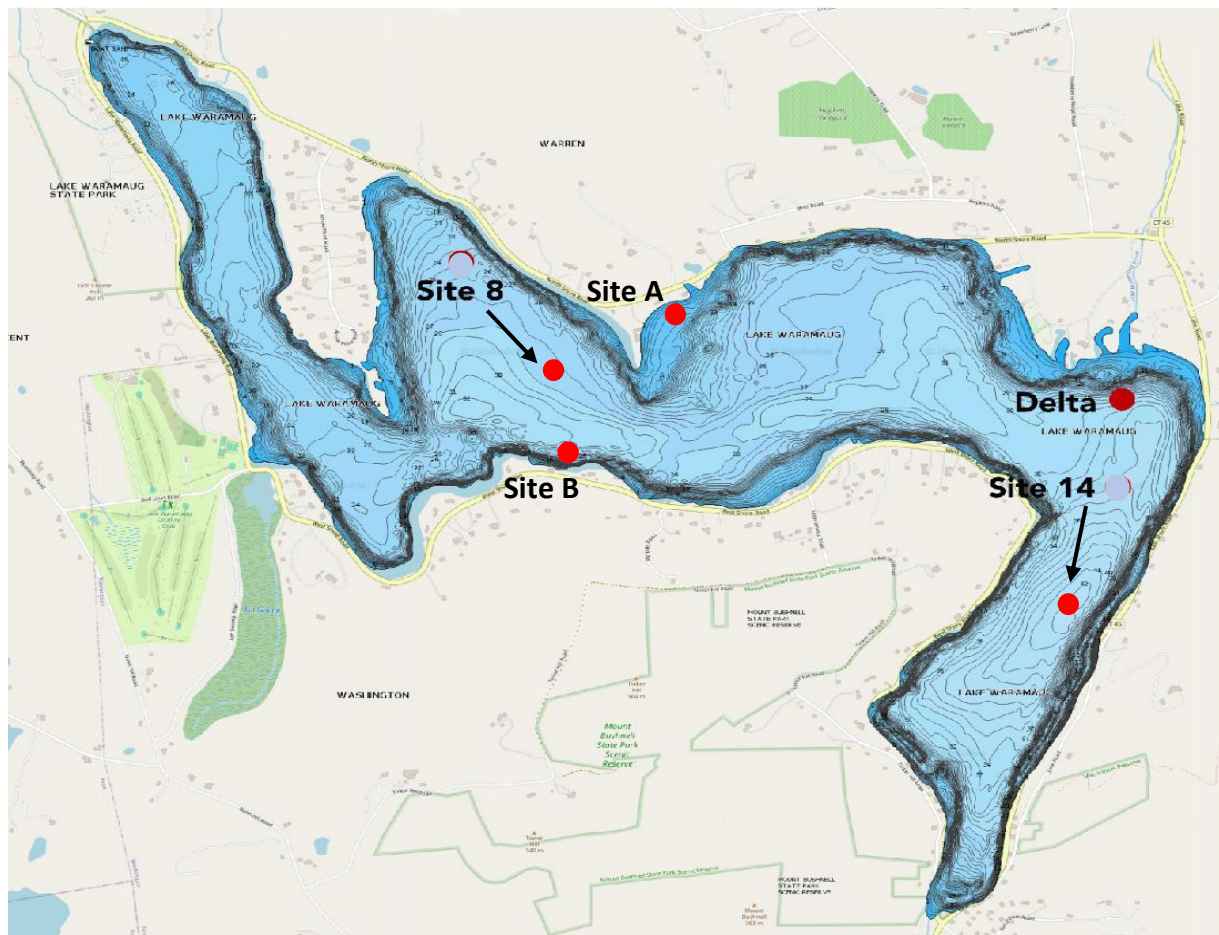


Figure 4 Bathymetric survey and study test site locations, Lake Waramaug, CT 2024.

Test sites A and B were chosen for wave propagation/attenuation distance comparisons with various vessels used on Lake Waramaug. Site A was chosen to measure near shore wave impacts due to shallow water depths near the shoreline. Site B was chosen to measure near shore wave impacts due to deep water depths (steep shoreline).

Site 8 was chosen as a location for propeller downwash measurements based upon a uniform depth of water at 26 feet where Wake Board Boats in surf mode typically operate. Site 14 was chosen for propeller downwash measurements based upon a deeper bottom area of approximately 36 feet.

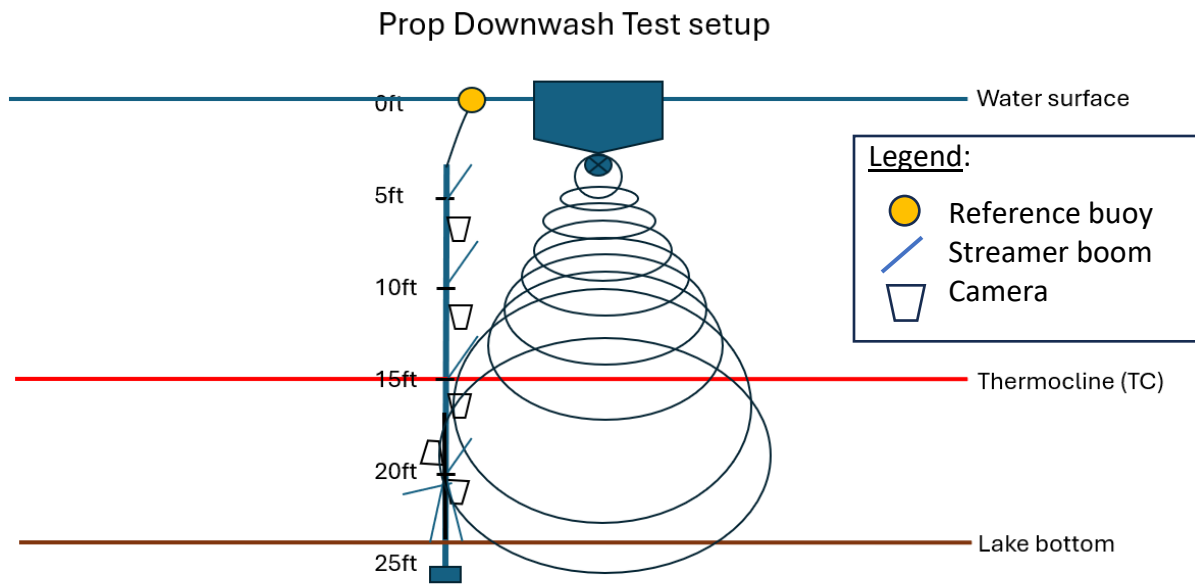


Figure 5 Subsurface Equipment and Hardware

The TVES engineered subsurface hardware is depicted in figure 5. A twenty-five-foot telescoping aluminum pole with anchor system was deployed at test site 8 and 14. The vertical pole had five, 36-inch extended fixtures attached at a 90-degree angle to the vertical pole. Each boom extension was affixed with a camera and color sensitive streamers to reflect dynamic water flow from propeller downwash energy. The boom extensions were affixed at 5, 10, 15, 20, 25 feet on the vertical pole. A camera with illumination was placed near the bottom of the vertical pole to record bottom sediment disruptions and re-distribution. All video captured was date and time stamped.

The submersible measurement system utilized was a remote underwater rover (ROV) with surface maneuvered commands from remote pilot using a virtual goggle system. The ROV was capable of a 250-foot range. The ROV was equipped with a propeller system, powerful lighting (4,000 lumens), cameras and a mechanical arm to grasp and hold objects. See Figure 6 ROV “Fifish”.



Figure 6 QY Sea V6 Fifish

Lake Waramaug Study 2024

Aerial drone imagery was captured with several UAS platforms, including a DJI Mavic Pro Quadcopter, with Hasselblad 4K camera system.



Figure 7 Mavic Pro UAS (Drone)

All TVES submersible equipment and hardware was pre-tested for stability, signal reliability, and battery supply prior to testing conditions. All TVES use of commercial drones were conducted by FAA commercial UAS pilots with visual observers.

Wave Propagation/Attenuation Distances

Buoy markers were placed at staggered distances from the shoreline at Sites A and B allowing for a professional driver, operating a Wake Board Boat in Surf Mode, and a typical water ski boat to make multiple individual passes at 100 feet, 300 feet and 500 feet from the shoreline. Multiple aerial, surface, and subsurface cameras recorded each pass with pause intervals allowing wave activity to dissipate fully between passes. See Figure 8 of a four-quadrant image from the various time synchronized cameras. Post-processing of the videos provided measurements of wave crest and wave trough amplitudes, wave heights, and wave lengths in a repeated measures design as depicted by the insert on Figure 8. These measurements provide graphical representation of wave height versus time as shown in Figure 9. Wave energy was also derived from these measurements. See the results section for a data summary and graphical display of these comparative data sets. Video clips of wave propagation will be presented at scheduled town meetings and made available thorough Hyperlinks.

Lake Waramaug Study 2024

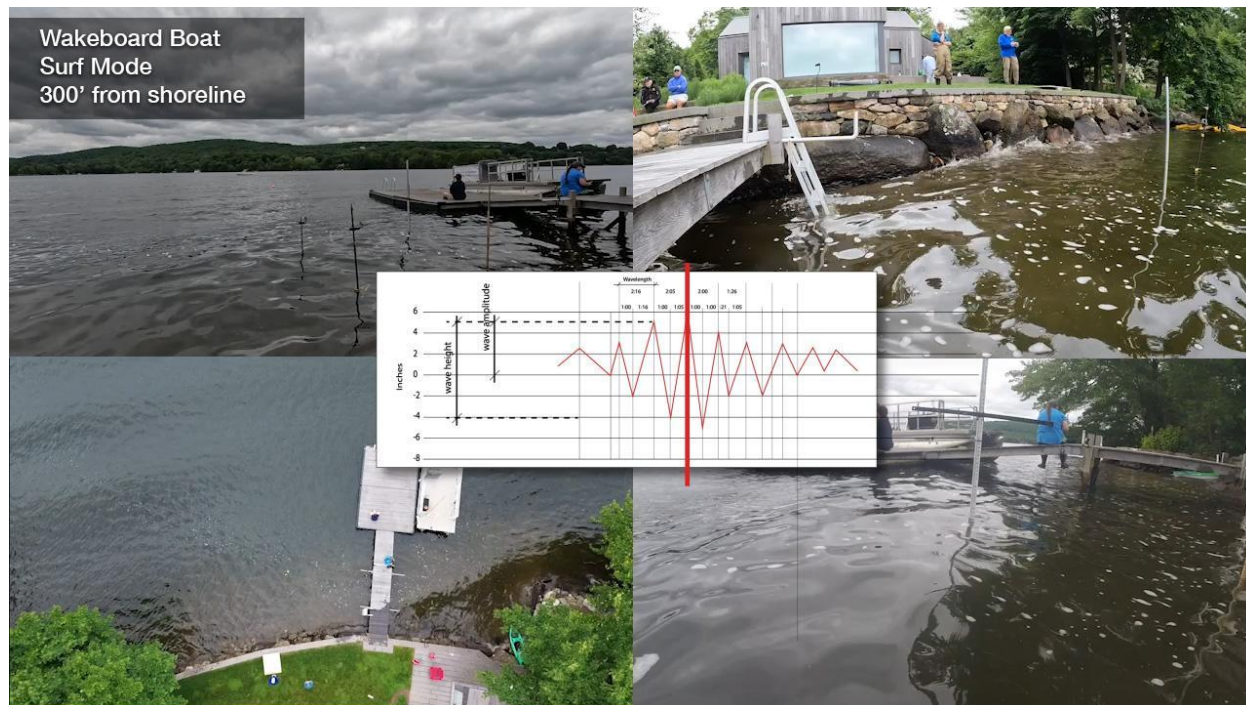


Figure 8: Four Quadrant view of Wakeboard Boat in Surf Mode at 300 feet from shoreline

Propeller Downwash Depths under Start Up Conditions and Surface Passes at Controlled Vessel Type Speeds.

Reference buoy markers were secured, with surface passes and startup propeller downwash depth measurements obtained for a Wake Board Boat in surf mode and then compared to a water ski boat in ski mode operating on the same course. During the testing phases, three separate startup conditions were measured for each vessel type. See the results section for a data summary and imagery reflecting fluid kinetic energy impacts. Video imagery reflecting propeller downwash and bottom sediment impacts were obtained for each vessel type.

Lake Waramaug Study 2024

Surface Vessel Specifications Used in the Lake Waramaug Study

Comparative Wave Propagation (Sites A,B)

Water Ski Boat

Cobalt 190 (model year 1998)

Stern Drive

Length Overall 19 ft

Weight 2,825 lbs

Power plant 245 hp (Modified)

Test Speed...22-25 mph



Wake Board Boat (Medium Size)

Maristar (Model Year 1999)

Stern Drive

Length Overall 21 ft

Weight 3,350 lbs (before ballasting)

450 lb bow ballast bag

1,500 lb stern ballast bags

Wave Shaper

Power Plant 330 hp

Test Speed...9 mph



Cruising Boat (Photo Unavailable)

Custom Cruiser Provided by Lake Resident

Stern Drive (Modified Outboard)

Length Overall 18 ft

Weight 1,500 lbs (estimate)

Power Plant 25 hp Outboard

Test Speed...5 mph

Comparative Propeller Downwash Startup and Buoy Passes (Site 8)

Water Ski Boat

Cobalt 190 (model year 1998)

Stern Drive

Length Overall 19 ft

Weight 2,825 lbs

Power plant 245 hp (Modified)

Test Speed...22-25 mph



Lake Waramaug Study 2024

Wake Board Boat (Large Size)**Malibu Wakesetter 23 LSV**

Stern Drive

Length Overall 23'7"

Weight 5,700 lbs (without ballasting)

Power Plant 400 hp

Stern Ballasting 4,400 lbs

Test Speed...9 mph



** Professional Drivers were used to operate vessels in specified modes (deck angle, speed, and ballasting)

4. Lake Waramaug Wave Impacts Results Summary

4.1 Wave Propagation Impacts

Near shore wave characteristics including wave heights, wave trough depth, and wave amplitude are depicted in Figure 9 with waves generated at 100 feet, 300 feet and 500 foot distances from the shoreline. These wave characteristics are shown at both shallow and deep water testing sites A and B respectively. Wake board boats in surf mode produce significantly higher waves, significantly deeper trough depths, and a significantly higher wave energy than a water ski boat at all staggered distances tested. A separate calculation of wave energy is also shown in Table 1. The wave features of the Wake Board Boat operating in surf mode are demonstrably different from the ski boat comparative data. These data are consistent with other studies referenced in the literature review. Wake Board Boats operating in surf mode create a very different wave phenomenon, with a larger, faster, and more penetrating energy dimension under these test conditions.

The wave height data captured at Site B with the steep shoreline has limited distance for wave interaction with the lake bottom. The wave height data captured at Site A with a shallow lake bottom approaching the shoreline reveals that the waves propagating towards shore were scrubbing the lake bottom, thereby reducing the wave height and dissipating wave energy, but also causing sediment redistribution and nutrient release into the water column. See Appendix B Relationship Between Water Depth and Wave Behavior.

Lake Waramaug Study 2024

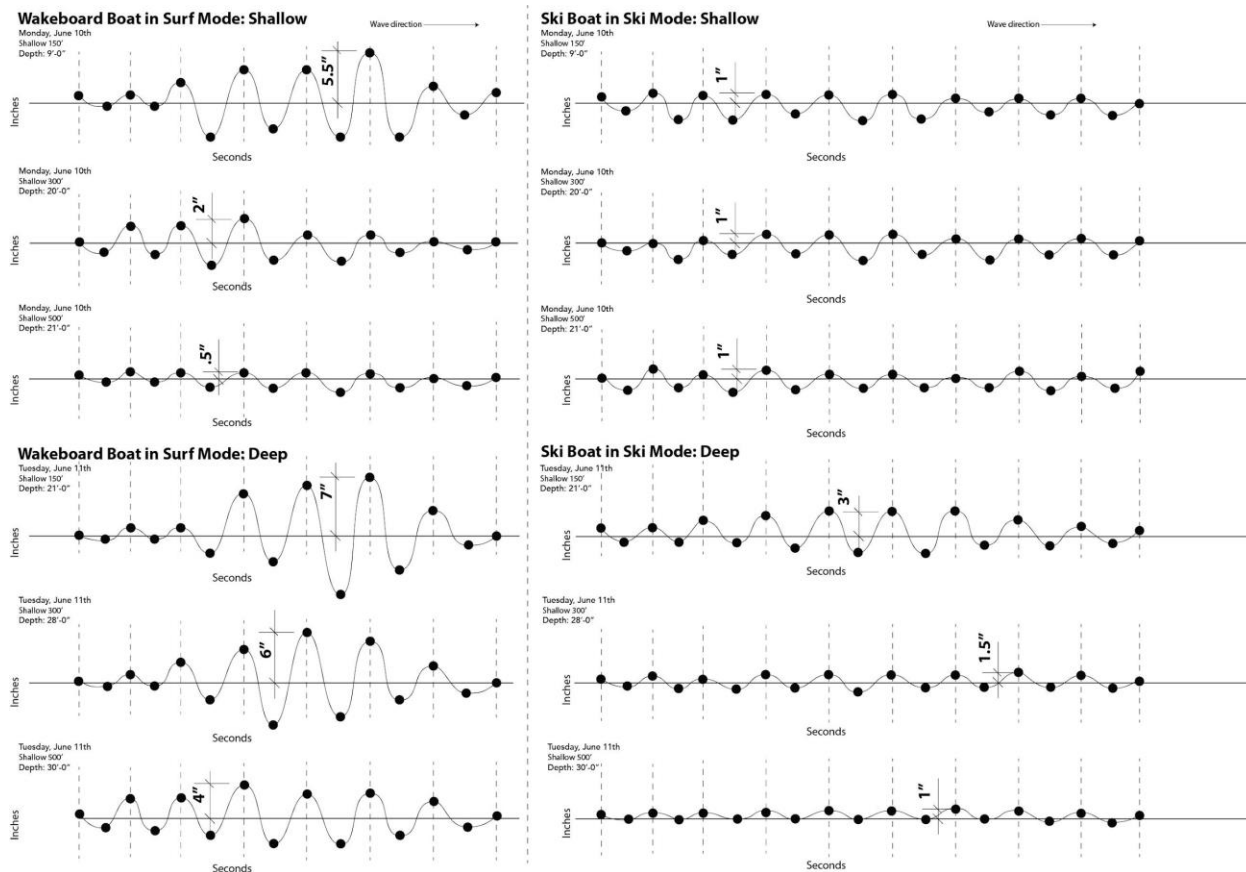


Figure 9 Wave Propagation Impacts at 100', 300', 500' from Shore in Shallow and Deep Test Sites A and B at Lake Waramaug, 2024.

Note: Test site A has a shallow lake bottom near shore, so the 100' buoy was actually located 150' from shore to have a water depth of 9 feet to safely operate the wake board boat in surf mode without hitting the lake bottom.

Distance from Shoreline (ft)	Wave Height (in)	Percent Increase in Height over Ski boat at same distance	Percent Increase in Energy over ski boat at 100ft	Distance from Shoreline (ft)	Wave Height (in)
100	14	233%	544%	100	6
300	12	400%	400%	300	3
500	8	400%	178%	500	2
>500	6		100%		

Table 1: Wave Height and Wave Energy comparison based on Operating Mode

Wave Heights on average were at least 200% (i.e. 2X) as high for Wake Board Boats in Surf Mode compared to Ski Boats at the same distances from shore. This results in Wave Energy from a Wake Board Boat in Surf Mode that is 400% (i.e. 4X) the amount of Wave Energy from a ski boat at the same distance. To dissipate the Wake Board Boat in Surf Mode wave to the same height and energy as a Ski Boat at 100 ft requires increasing the distance from shore to over 500 feet. This is depicted by the green highlighted bars in Table 1. This corresponds with results from other studies including: Marr et al, WEC, TVES-NLMD.

For the reader of this document: Wave energy is proportional to the square of wave height. A wave that is 2X in height has 4X the amount of energy. This formula was used in TVES calculations relative to wave energy. A similar method is used in the Marr et al, data allowing comparative reference.

4.2 Propeller Downwash Impacts

Propeller downwash depths were measured under repeated startup and buoy pass testing conditions and reveal deep fluid kinetic energy activity for wake board boats in surf mode compared to minimal impacts by a water ski boat under identical testing conditions. Subsurface imagery as depicted in Figure 10 reveals propeller downwash impacts occurring at depths of at least 26 feet for a wake board boat in surf mode.



Figure 10 Propeller Downwash Impacts of at least 26 feet Depth by Wake Board Boat in Surf Mode. (Test Site 14) Lake Waramaug, 2024

Bottom Sediment Re-Deposition & Disturbance at Deep Water Test Site (Site 8)

Imagery was gathered at deep water test site 8. Cameras placed at the base of vertical poles in 26 feet of water depth revealed propeller downwash impacts including sediment re-distribution due to wake board boat propeller downwash in wake surf mode. See Figure 11.

Lake Waramaug Study 2024



Figure 11 Images at Site 8 of Propeller Downwash and Sediment Re-distribution

Of additional interest, total Phosphorus sampling at these deep sites (sampled at 20 feet), also reveal a 110% increase in Total phosphorus levels released immediately following startup impact **measures for wake board boats in surf mode. By comparison, *no significant increase in measured Total phosphorous levels was found for water ski boats in startup conditions.*** (The reader is cautioned that this finding is preliminary in nature, was not the primary focus of the project, and warrants additional study.)

Propeller downwash effects are occurring at depths at and below the measured thermocline for Lake Waramaug (approximately 17 feet, mid-late summer 2024). The potential disruption of “mixing cycles” associated with this finding warrants additional study.

This nutrient release data is similar to previous study by the TVES group in North Lake, Wisconsin. In 2021, TVES designed a pre-post sampling procedure of phosphorous release events on a controlled, 800-meter course in 15’ to 25’ of depth with a wake board boat in surf mode. After two boat passes, measurements of 25% to 30% percent increases in Total phosphorus levels (dip sampling) were demonstrated in the near shore in that study. See Figure 12.

Nutrient release events into the water column as described above, are noted for specific additional study. Professional opinions from Limnology experts should be sought relative to the impacts of persistent Total phosphorus release events and thermocline penetration by wake surf mode operations in Lake Waramaug.



Figure 12 Increased Phosphorous Release Events Following Wake Board Boat in Surf Mode Operations, North Lake, Wisconsin Study (2021).

5. Lake Waramaug Impact Management Issues for Consideration

TVES group has completed a three-phase study of Lake Waramaug. Phase 1 surveyed resident attitudes regarding lake usage, and Phases 2 and 3 involved in-lake studies measuring large displacement wave impacts to the lake.

In 2023, a survey of community and lake resident opinions was released and briefed to local residents in the Kent, Warren and Washington, CT municipalities. Both an executive summary and final report were made available to interested citizens on local municipal websites. Principle findings included*:

- A large percentage of survey respondents are aware of large wave displacement vessels and devices.
- Only 50% of survey respondents are aware of the surface and subsurface lake impacts from wake board boats in surf mode.
- Both wake board boats and personal watercraft were identified by a majority of survey respondents to be a safety risk.
- 50% of survey respondents are aware of local, state and federal safe boating regulations.
- A majority of survey respondents are in favor of mandatory regulations to manage large wave impact vessels on Lake Waramaug.

*(See Appendix to this report for the full survey report and executive summary).

During Phases 2 & 3 in-lake scientific studies were performed in the summer of 2024 on Lake Waramaug. These studies addressed comparative wave features produced by vessels in common use on Lake Waramaug, including water ski boats, cruising watercraft and wake board boats in surf mode.

Wave impacts were studied at staggered distances from shoreline (100 ft, 300 ft, and 500 feet) to address wave attenuation dynamics. In addition, deep water, subsurface impacts, were studied allowing comparative measure of propeller downwash depths and bottom sediment impacts (disturbance and re-distribution).

The in-lake study on Lake Waramaug has demonstrated that large displacement wave action from wake board boats in surf mode are larger, faster and of higher energy at all distances from the near shore than any other vessels in common use on the lake. These findings are consistent with similar studies, from multiple research groups, in the Midwest, West and Southeast portions of the United States.

Lake Waramaug Study 2024

The in-lake study on Lake Waramaug has also demonstrated deep fluid kinetic energy impacts at depths of at least 26 feet from Wake Board boats in surf mode on both start up and passing over a controlled course. These impacts are not demonstrated from vessels not operating in surf mode configurations. These findings are also consistent with similar studies, from multiple research groups, in the Midwest, West and Southeast portions of the United States.

Action Items for Consideration at Lake Waramaug, CT

- Develop and establish management procedures for large displacement wave action impacts on Lake Waramaug, CT
- Develop and establish management procedures to assure a 500-foot minimum distance from the near shore, other vessels and shore structures relative to Wake Board boats in surf mode on Lake Waramaug, CT
- Develop and establish management procedures to assure minimum depth areas to be designated and protected from sediment redistribution events from Wake Board boats in surf mode on Lake Waramaug, CT
- Develop and establish educational programs to address measured limits of public knowledge regarding safe boating practices for all vessel types and lake usage on Lake Waramaug, CT
- Develop and establish educational programs to address public awareness of large wave impacts to the surface and subsurface of Lake Waramaug, CT
- Additional study of sediment re-distribution and nutrient release

6. References

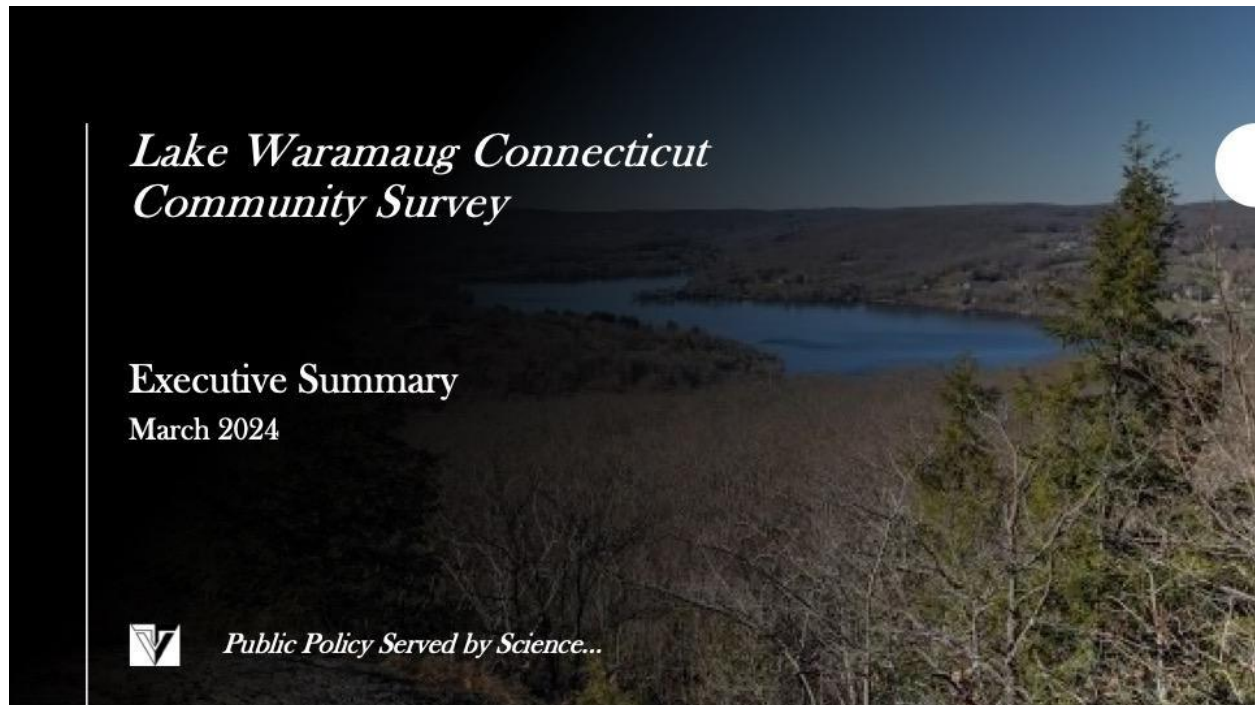
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Lake Waramaug Study 2024

- 10) USACE, "Vessel Wake prediction Tool". Technical report No. ERDC/CHL CHETN-IV-121, U.S. Army Corps of Engineers, Washington, D.C. 2020
- 11) Water Environment Consultants (WEC), "Boat Wake Impact Analysis", Lakes Rabun & Burton, Georgia, January 2021

Appendix A

Lake Waramaug Resident Lake User Survey, Executive Summary, 2024

**Excerpt of Principle Findings****– Survey Analysis and Conclusions**

Full survey analysis results are provided in the [“Community Survey” final report](#) (47 pages). The detailed survey analysis includes an organized index of open-ended commentary from respondents in the appendix.

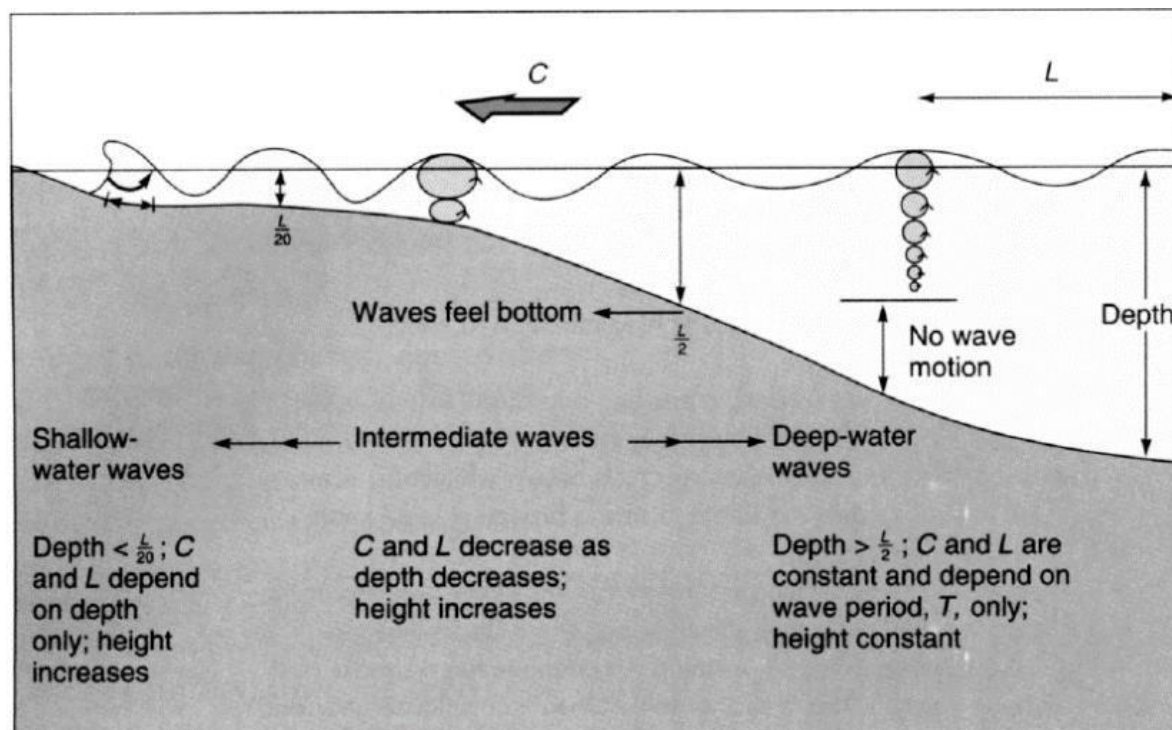
- PWC and Wake Surf mode operations are major concerns
- PWC and Wake Surf mode are proportionately a small percentage of lake usage with high identified impact
- High percentage of lake users are unaware/uneducated about safe boating regulations
- On-lake boat operator conduct should continue to be managed
- Widespread awareness that water quality impacts property values and quality of lake life
- Multi-user recreational lake with significant number of non- lake property owners taking an active interest and use in the lake
- Majority of survey respondents prefer enforceable regulations. This is in comparison to the majority of Lake Property Owners who favor voluntary compliance.

Appendix B

Relationship Between Water Depth and Wave Behavior (Excerpt from: TV-ES North Lake Water Quality and Wave Propagation Study Phase 2 Report)

Background

It is important to provide some background on general characteristics of waves, how they move through the water, and what affects them. The figure below shows the relationship between water depth and wave behavior. In deep water conditions (i.e., water depths greater than $\frac{1}{2}$ wavelength of a wave) the speed (C) and wavelength (L) of a wave produced by a particular vessel type and operating mode are constant and are not influenced by the lake bottom and the water particles move in a circular motion. For example, a wave with a wavelength of 20 feet is considered a deep wave in depths of 10 feet or greater. Wavelength is defined as the distance between the top or crest of a wave to the next or adjacent crest. Although not illustrated on the diagram, wave amplitude is the difference in height between a wave crest and adjacent wave trough. Wave period (T) is defined as the time for one wavelength to pass a fixed location.



Relationship Between Water Depth and Wave Behavior

Source: John A. Knauss, *Introduction to Physical Oceanography*, and SEWRPC

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When water depth is less than half the wavelength of a wave, the lakebed begins to slow the wave by friction (bottom scrubbing) and the water particles start to move elliptically as shown. As the wave slows, wavelength shortens, and wave height increases until the ratio reaches or exceeds 7:1 (wavelength/wave height), when the wave breaks. As shown the wave is considered an intermediate wave, meaning some interactions with the lake bottom, when water depths are between $\frac{1}{2}$ and $\frac{1}{20}$ of the wavelength. Below $\frac{1}{20}$ wavelength, the wave is considered a shallow water wave. For the example given, a wave with a wavelength of 20 ft would be an intermediate wave between 10 ft and 1 ft of water depth and a shallow wave below 1 ft of water depth. These definitions become important for understanding the results of this study and its relationship to other wave studies or research.

Lake Waramaug Community Survey

April 2024

Public Policy Served by Science...



Terra Vigilis Environmental Services

Survey Scope

The combined leadership of Kent, Warren and Washington Townships have engaged the services of Terra Vigilis Environmental Services Group (TVES) to study Lake Waramaug. More specifically, this group has arranged for TVES to survey lake recreational use patterns, public awareness of risks to lake water quality, shoreline and habitat. The recent introduction of large wave enhancing vessels on Lake Waramaug and the potential impact to water quality and related safety issues prompted this multiphase project.

Terra Vigilis Environmental Services Group has begun a two-part project to assess community concerns in Phase 1, followed with an in-lake study for Phase 2. The first phase of the project has been completed, with a survey distributed to 3,400 residents both on and nearby the lake. The results of this survey are detailed in the accompanying report.



Table of Contents

1. Survey Scope and Design
2. Executive Summary
3. Glossary
4. Survey Domains
5. Summary and Conclusions
6. Next Steps
7. Appendices

Lake Waramaug Survey Design

An 18-item questionnaire of resident attitudes and awareness of Lake Waramaug recreational use patterns, water quality economics, lake vessel typology, timing of recreational events, knowledge of wave enhancing devices and impacts, and attitudes concerning management of lake user conduct was designed. The survey instrument gathered both nominal and open-ended data regarding these variables.

Anonymity of responses was assured to all respondents. Results were analyzed to account for respondent residence (on-lake verse off-lake). Surveys were distributed in both a digital and hard copy format to assure the largest representative sampling of opinions.

Executive Summary

- Broad multi-user lake activities
- High engagement and response to survey by lake property owners as well as community residents (public access)
- Findings suggest multiple safety and environmental concerns

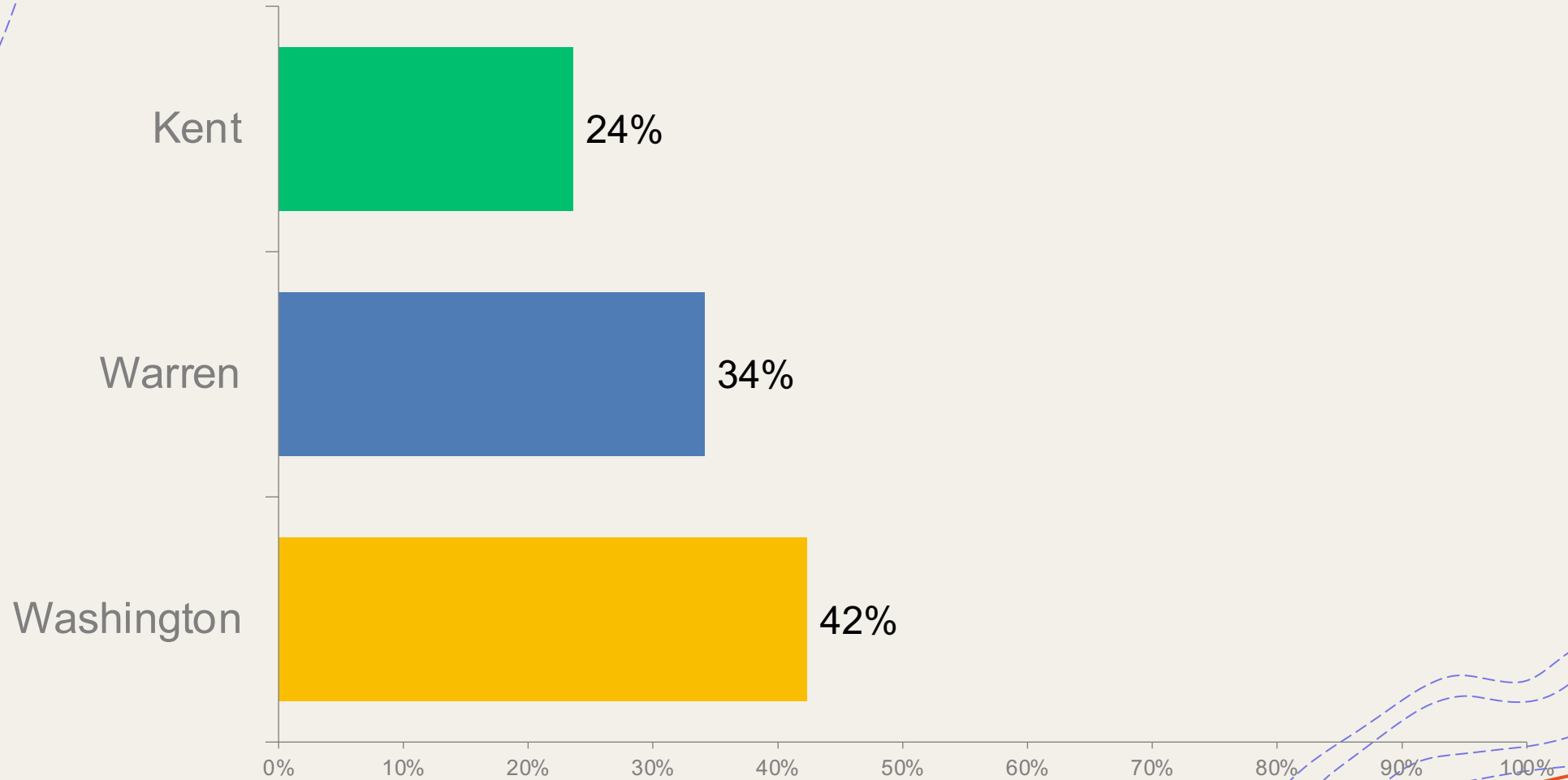
Glossary of Terminology

- **Personal Watercraft (PWC)**...small (8 to 12 feet LOA), 1-3 person surface watercraft powered by jet stream and rotax engine
- **Wake Board Boat**...large (18 to 25 feet LOA), surface watercraft with powerful (300-500 hp) engine and ballasting systems
- **Surf Mode Operations**...wake boat enabled large wave displacement operation with high bow angle and slow “plowing” speed
- **Wave Enhancing Device**...fixture to enable large displacement wave operations
- **Non-motorized vessels**...canoes, kayaks, paddleboards, rowing scull or sailboats
- **Surface Impact**...disturbance to lake’s surface by wave action
- **Subsurface Impact**...disturbance to lake bottom by propwash, jet stream wash
- **Sediment Redeposition**...disturbance to lake bottom sufficient to move sediments into water column or redeposit materials
- **Water Column**...measurable portion of the water environment which contains selected lake chemistry elements
- **Survey Respondent**...an individual who has completed a survey questionnaire
- **Significant Finding**...information of sufficient importance to be noted for attention
- **Percentage**...a statistical calculation representing a portion of a larger population of data

Survey – Response and Analysis

- Total respondent count of 759 completed survey responses.
- Data has been considered relative to 284 on-lake residents and 3400 community residents.
- Lake resident survey responses totaled 205 of 284 meaning a 72% survey response of property owners. This is considered a high response rate.

Survey Domain 1...Respondent Residency Source



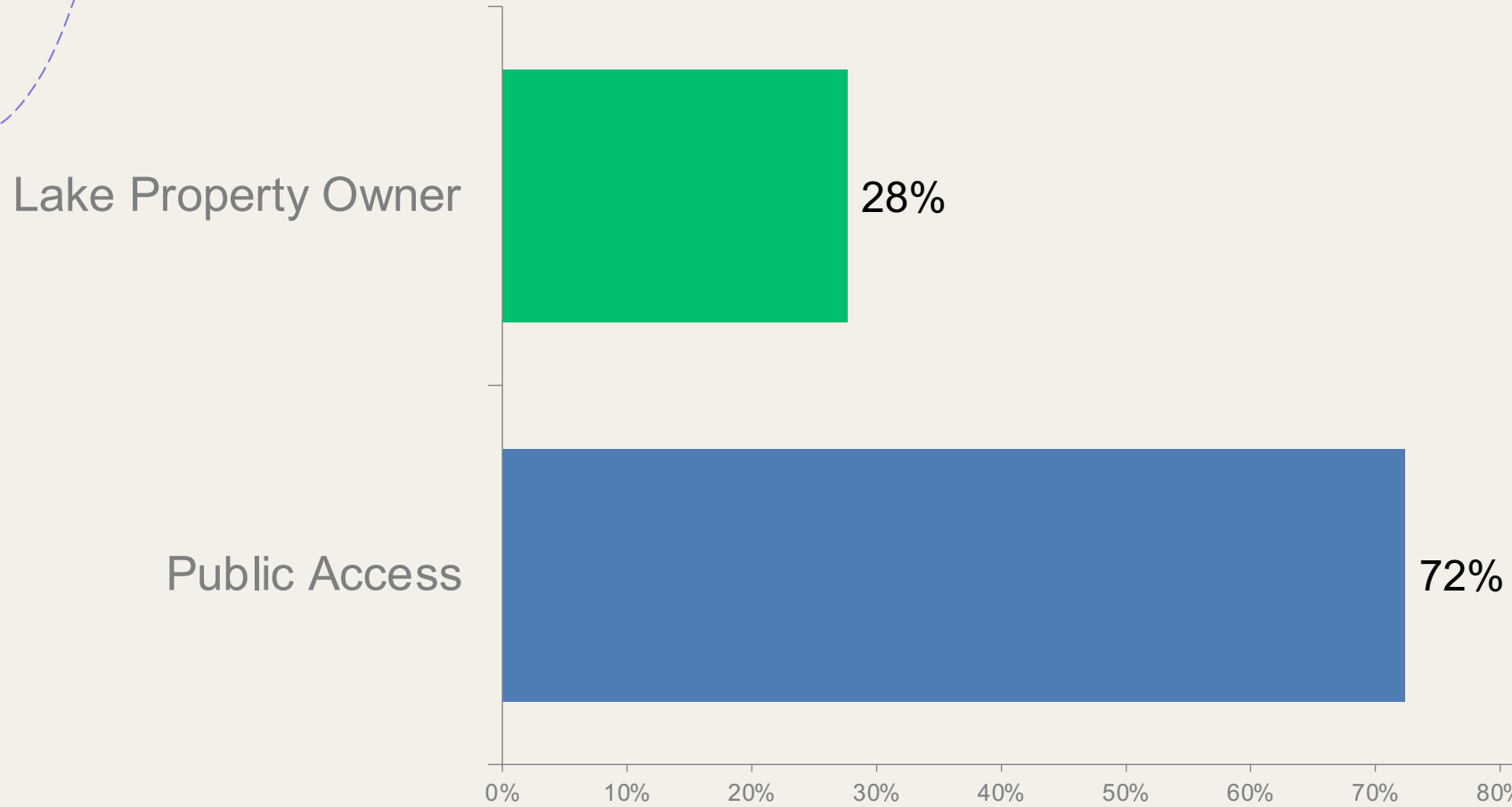
Domain 1 Survey Respondent Residency Source

The data reflected in the survey respondent source shows:

- 318 from Washington Township
- 256 from Warren Township
- 177 from Kent Township

** Of the 759 survey respondents, only 8 (1%) of respondents were non-township residents*

Survey Domain 2...Respondent Lake Access Source



Domain 2 Lake Access Category

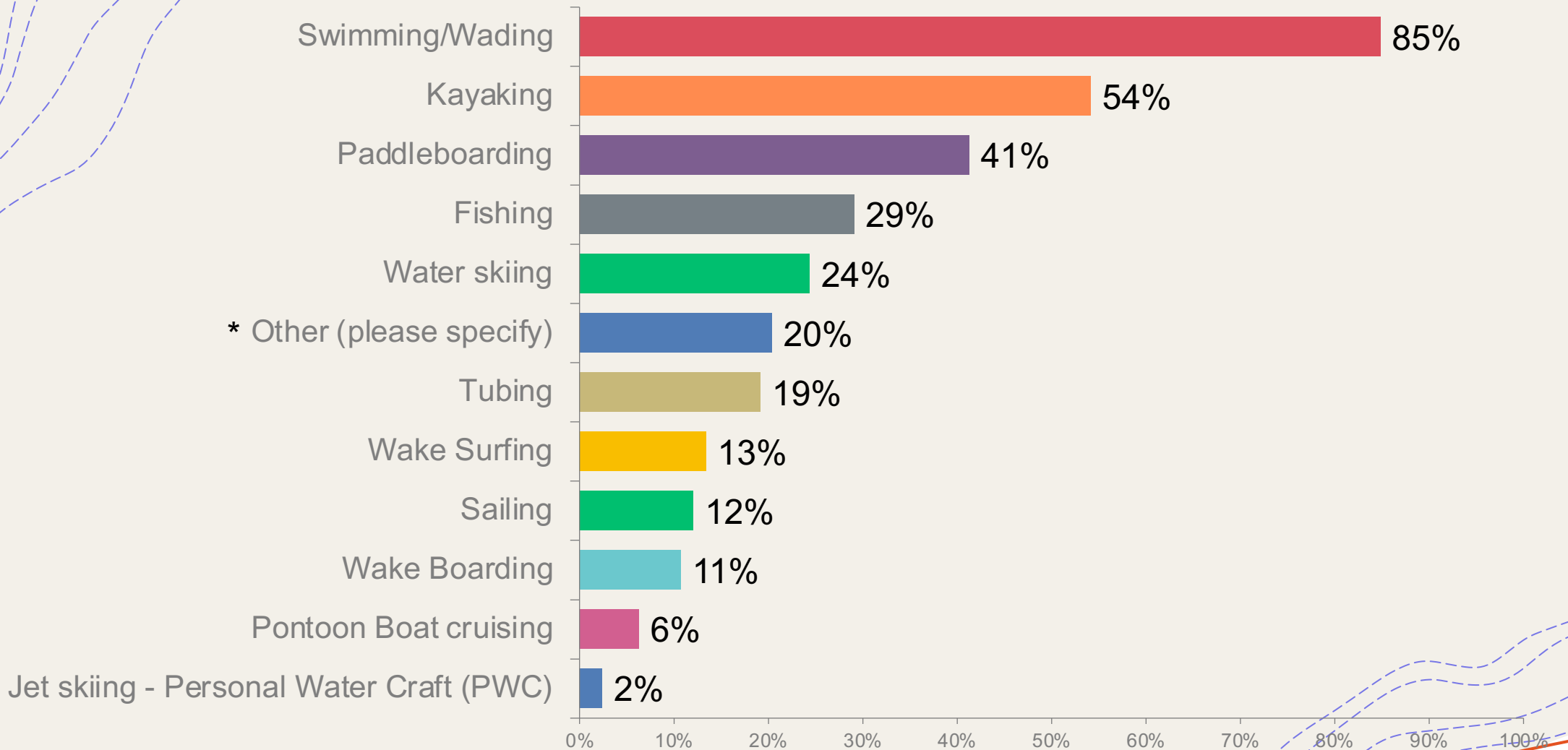
These data clearly demonstrate that a large percentage (72%) of the Lake Waramaug user base is from public access sources as compared to deeded access property owners (28%).

Features in this data set include two significant elements:

- A significant percentage (72%) of Lake Property owners responded to the survey (205 of 284).
- Non-lake property owners demonstrate that they take an active interest in the lake (537 respondents).

* *NB...Survey process did not account for State Park lake users.*

Survey Domain 3...All Respondents Lake Use Category



* Other: (Viewing/Picnicking, Walking/Hiking, Biking, Canoeing, Rowing/Sculling, Cruising)

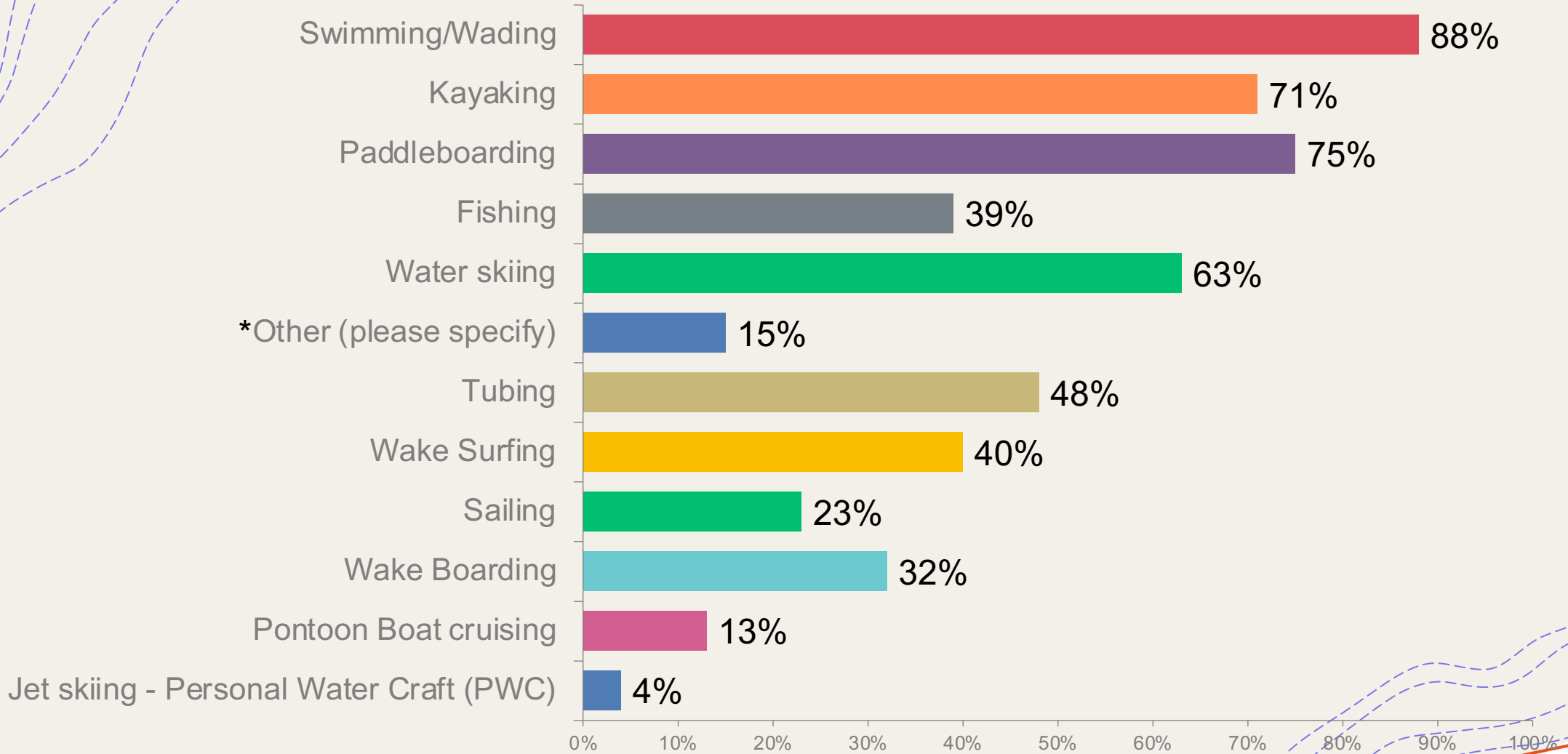
Domain 3 Lake Use Category

Non-motorized lake use activities (swimming/wading, paddleboarding and kayak use) show a high percentage compared to all other categories of lake activity. This is followed by motorized vessels for fishing, water-skiing, tubing, wake surf and wake board activities. A large number of respondents also identified Other activities: sailing (12%), pontoon boat/cruising (6%), canoeing (3%), and rowing (2%).

Personal water-craft (PWC) usage (18 respondents) was significantly lower than all other categories.

The open-ended commentary in this section reflects an important “Other” category of lake use, associated with *“walking, hiking and biking around the lake and enjoying the scenic beauty of the lake area”*.

Survey Domain 3A...Lake Property Owner Lake Use Category



* Other: (Canoeing, Rowing/Sculling, Cruising, Viewing)

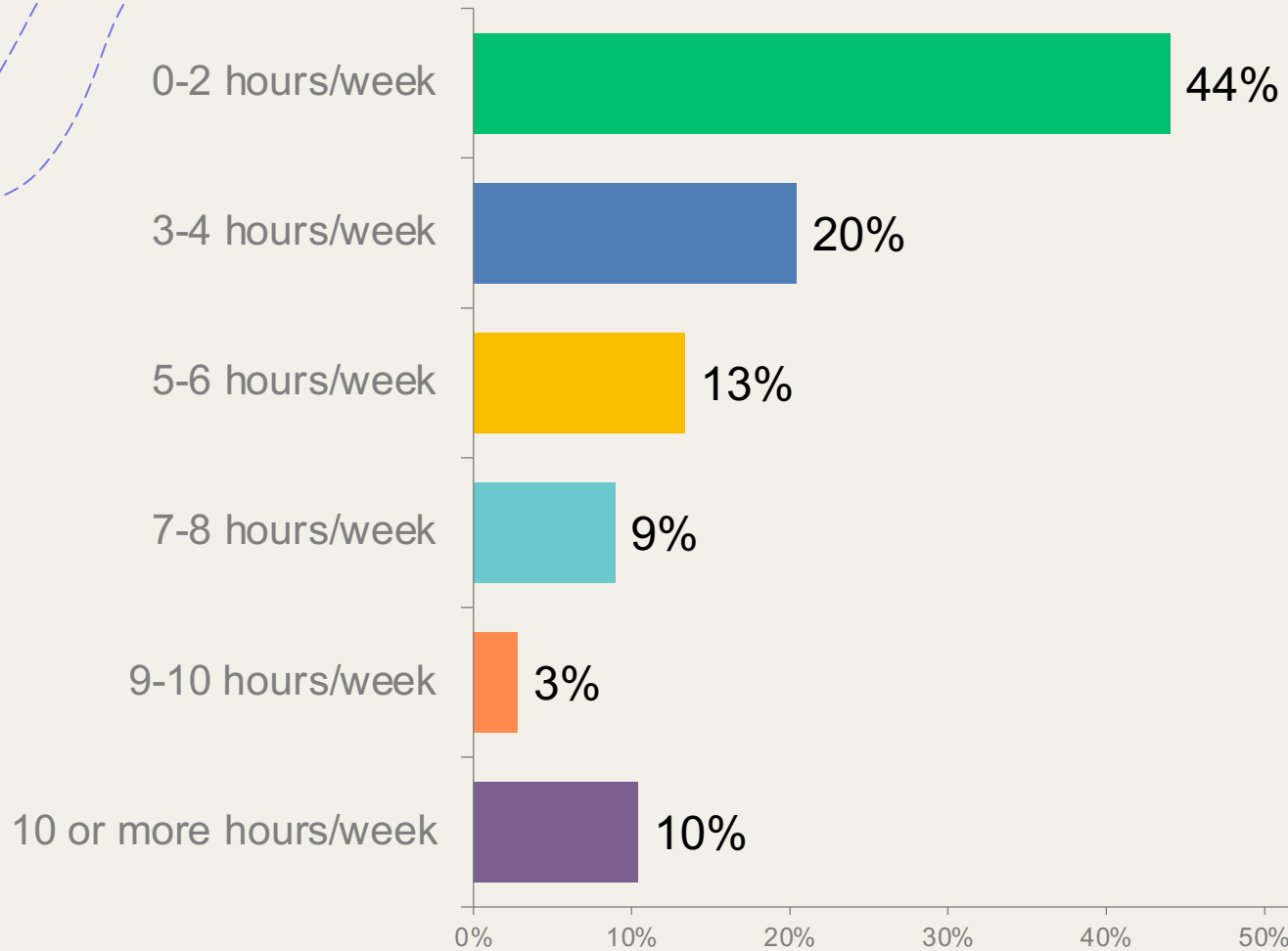
Domain 3A – Lake Property Owner Lake Use Categories

When considered as a separate category of lake owners (205), a high percentage utilize the lake for multiple activities.

This is what your lake neighbors (families) do:

- 181 swim/wade
- 153 paddleboard
- 145 kayak
- 129 waterski
- 98 tube
- 81 wake surf
- 80 fishing
- 65 wake board

Survey Domain 4...On-Lake Usage Times



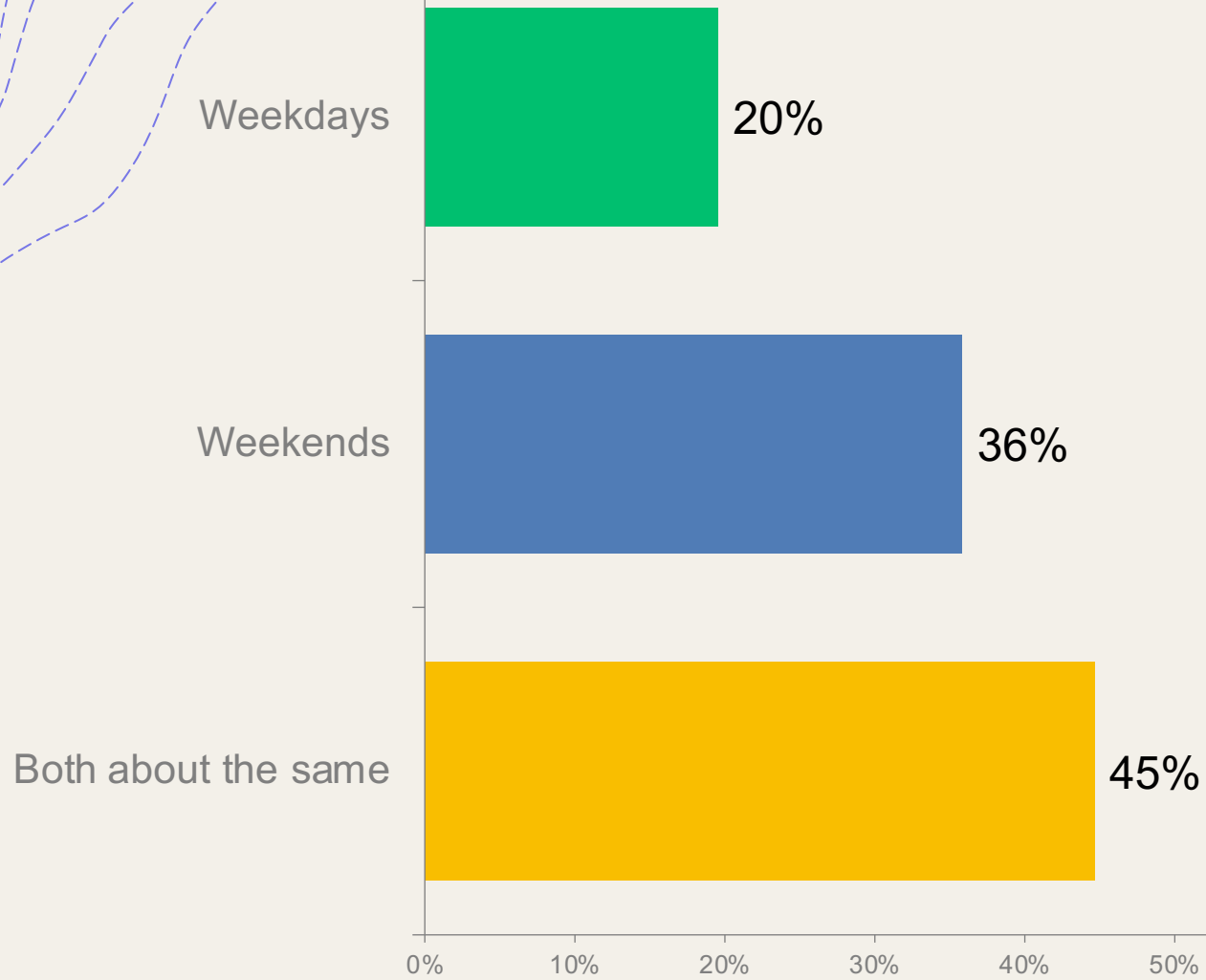
Domain 4: On-Lake Usage Time

The respondent data collected regarding on-lake usage times shows a high percentage of activity limited to 2 or less hours weekly at 44%.

A second category of usage for 3 to 4 hours of on-lake activity weekly at 20% is noted.

Lake usage greater than 7 hours weekly appears in this respondent group at 22%.

Survey Domain 5...Weekend vs Weekday Use



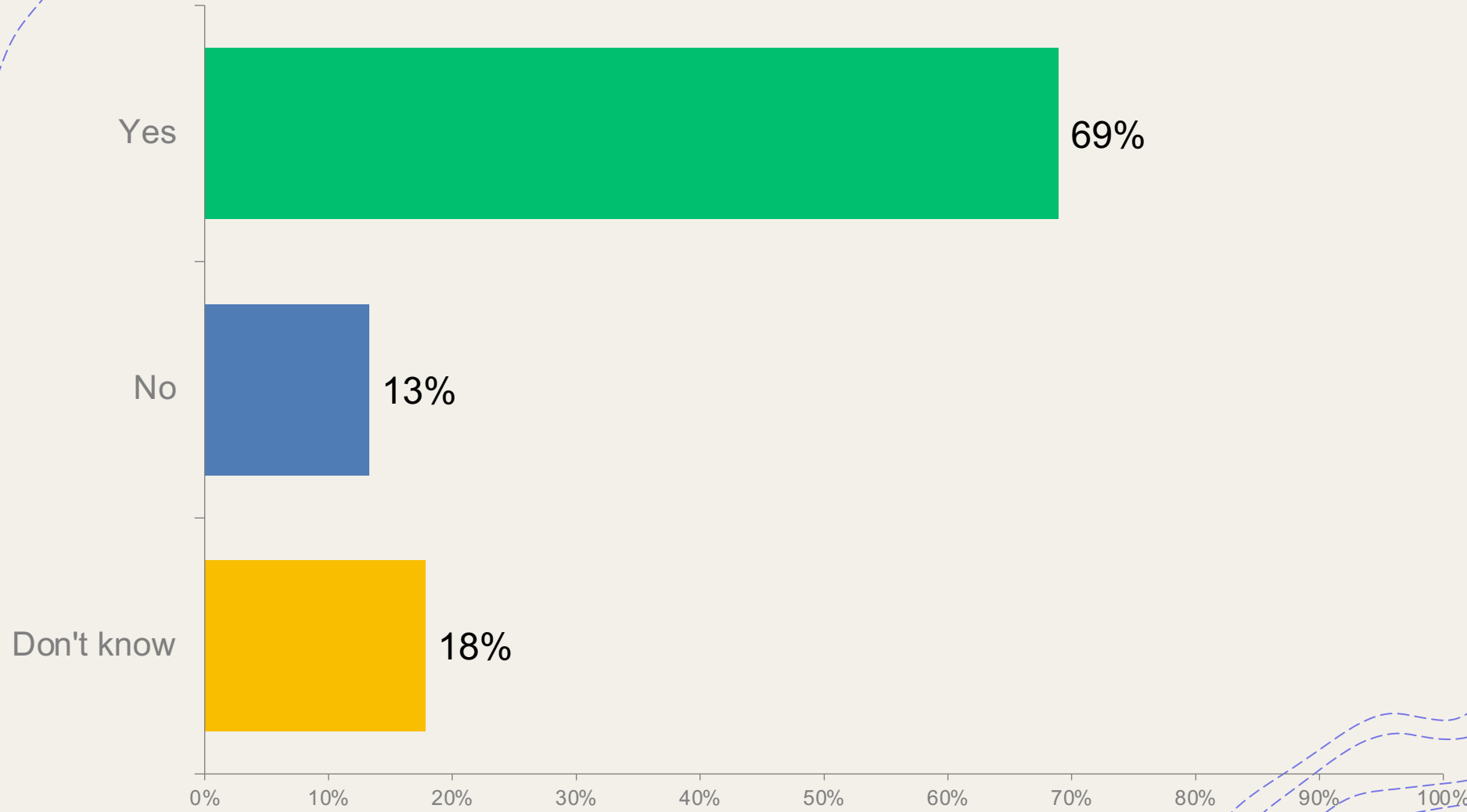
Domain 5 Weekday verse Weekend Lake Usage Time

When the data is broken out by category, weekday lake use is 65% of users, and weekend lake use is 81%.

$$\text{Weekday percentage} = 20\% + 45\% = 65\%$$

$$\text{Weekend percentage} = 36\% + 45\% = 81\%$$

Survey Domain 6...Water Quality Economics

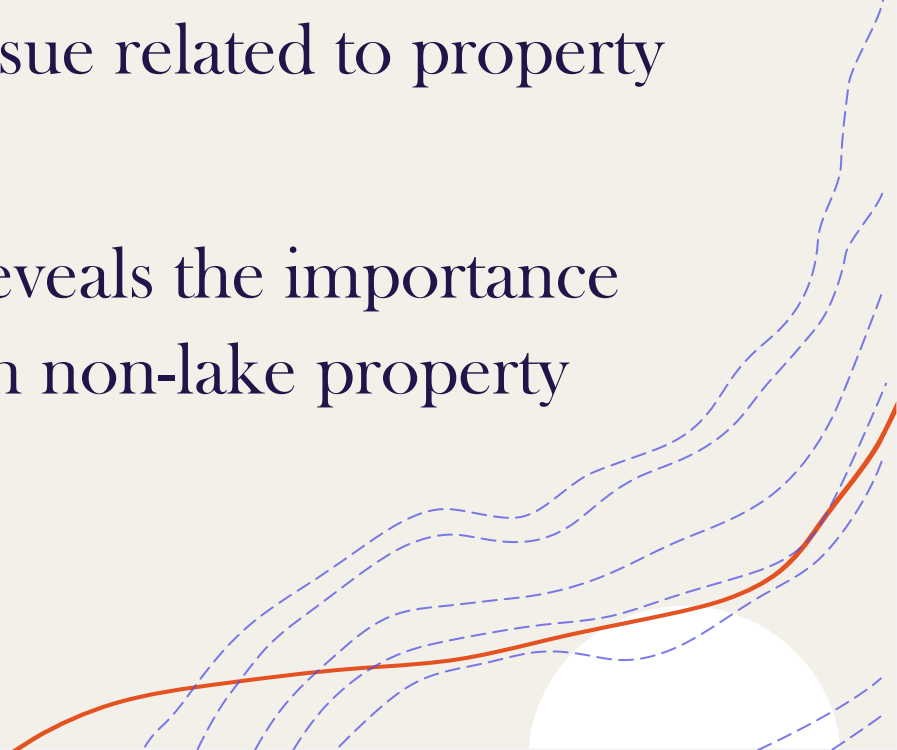




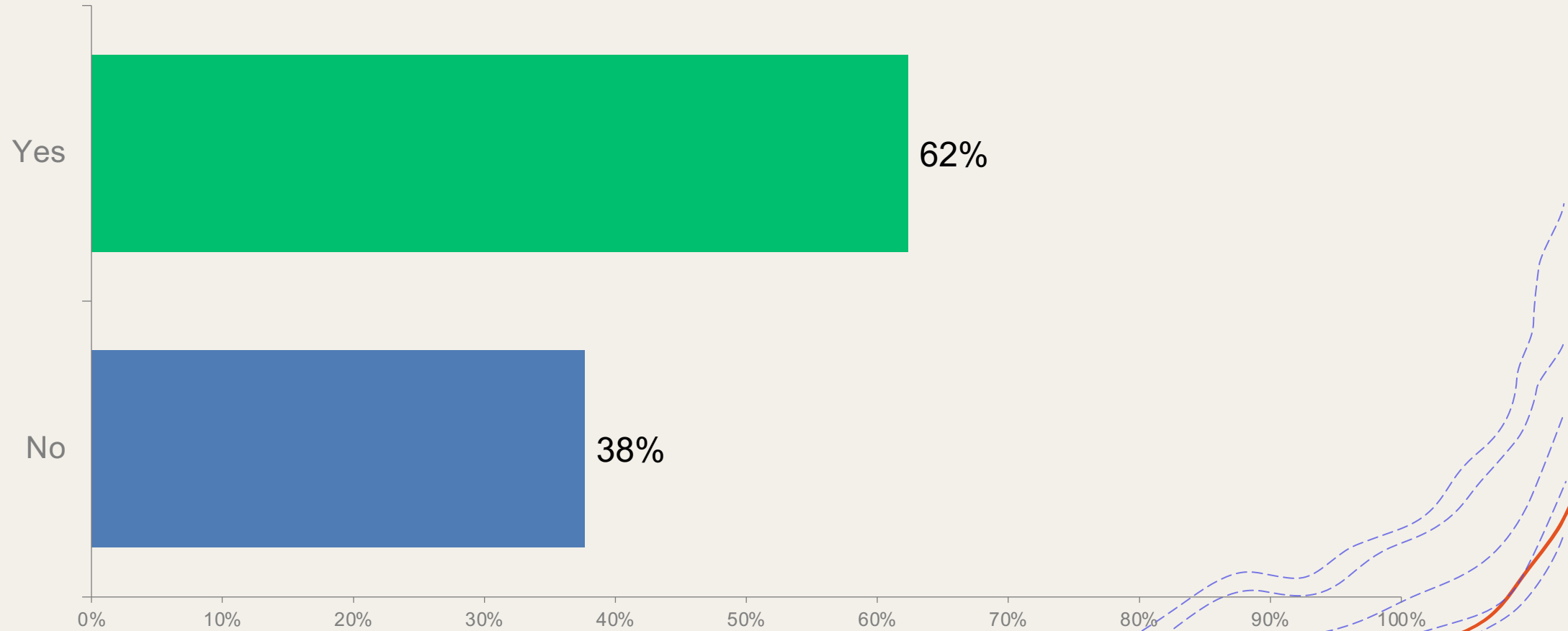
Domain 6 Water Quality Economics

A significant proportion of survey respondents (69%) indicate an awareness that water quality and proper lake management to assure protection of the lake from both algae blooms and diminished water quality is an important issue related to property values.

This is particularly significant, because it reveals the importance of water quality and property value, to both non-lake property owners as well as lake property owners.



Survey Domain 7...Wake Boat Surf Mode Awareness

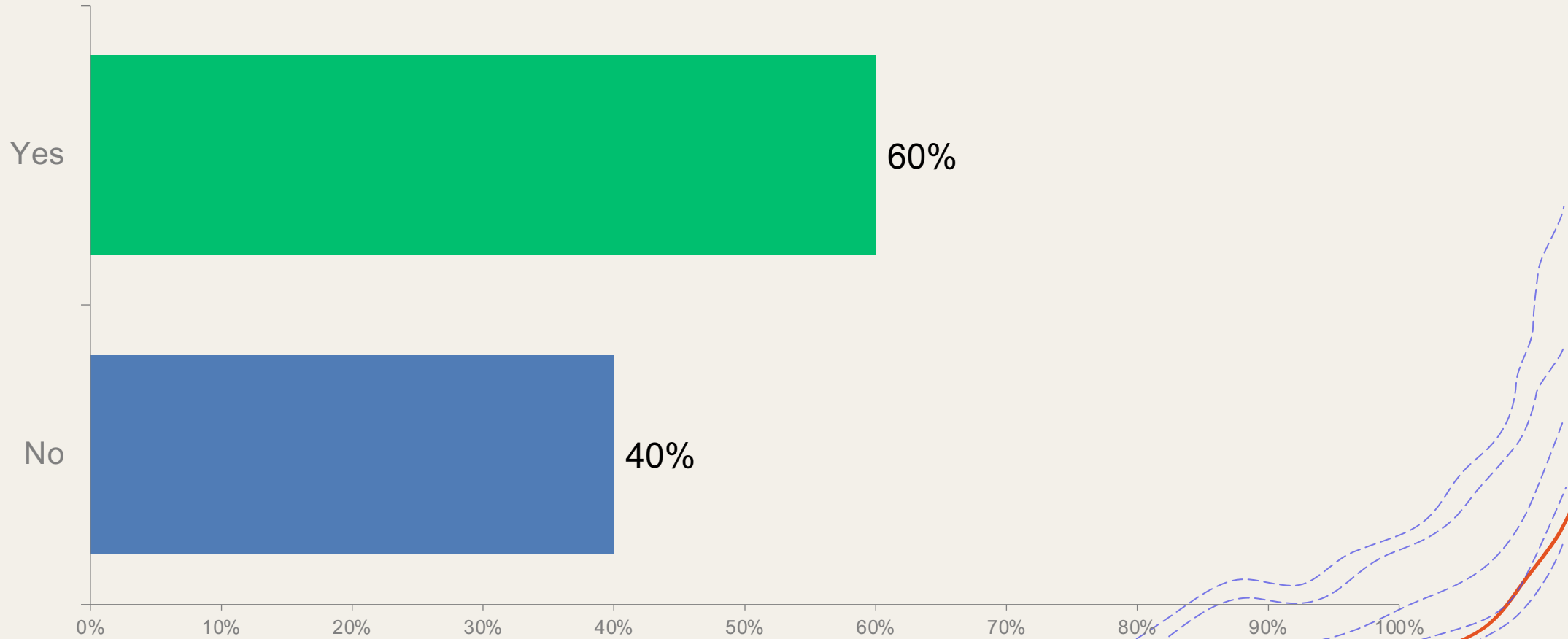


Domain 7 Wake Boat Surf Mode Awareness

These data reflect a majority of survey respondents (62%) are aware of the meaning of wake board boats operating in surf mode, and what this operational system involves*

**The survey offered a description of the characteristics associated with wake board boats in surf mode and or the design effects of wave enhancing devices.*

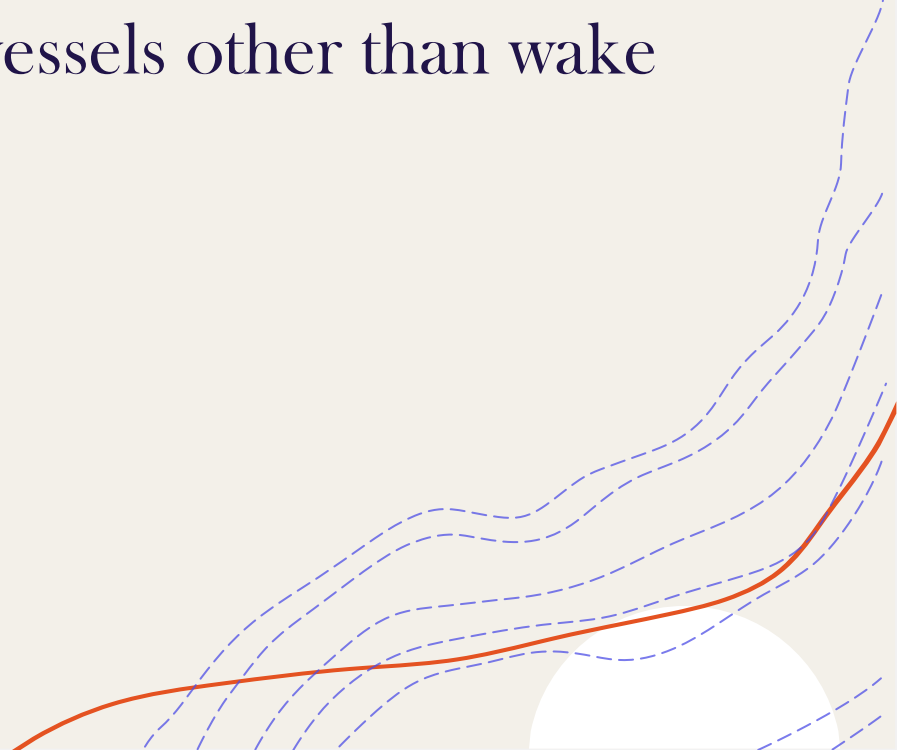
Survey Domain 8...Wave Enhancement Devices



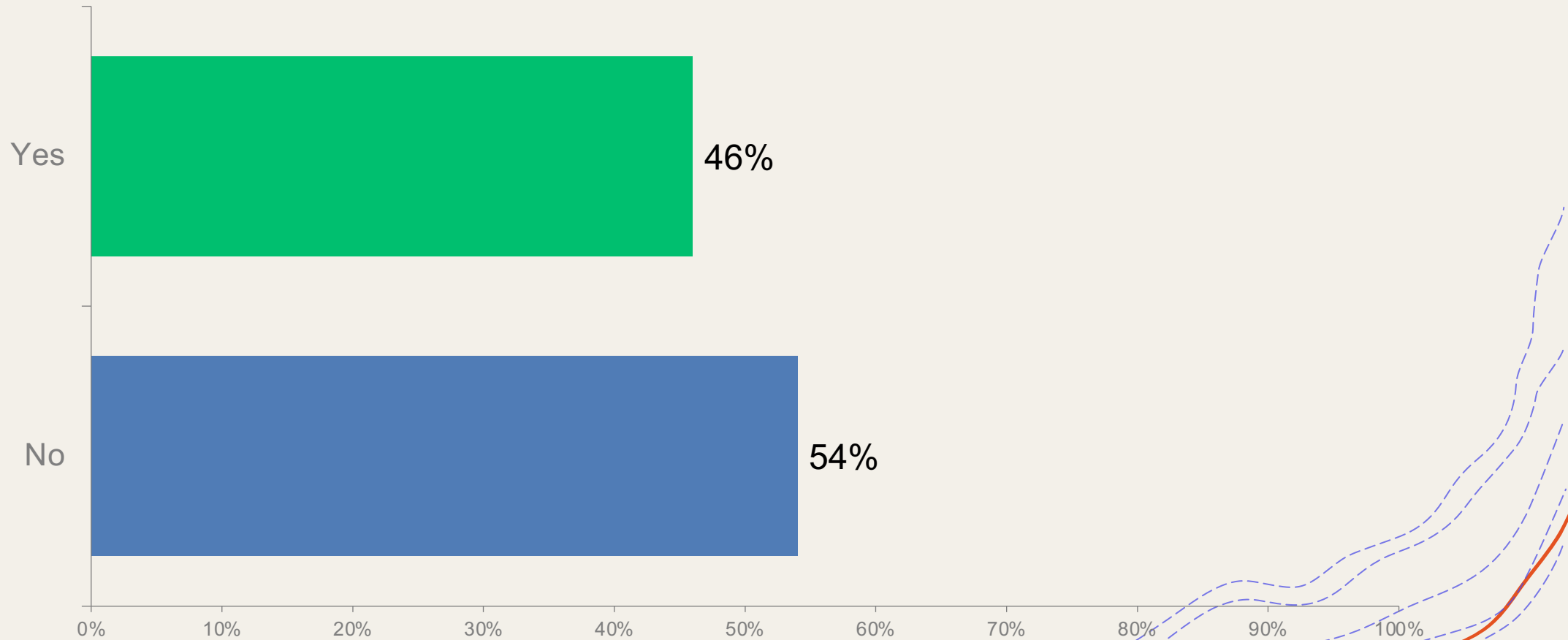


Domain 8 Wave Enhancing Devices

A majority percentage of survey respondents (60%) indicate an awareness of what “wave enhancing” devices are designed to effect on the lakes’ surface. Respondents also indicate an awareness that wave enhancing devices can be attached to vessels other than wake board boats.



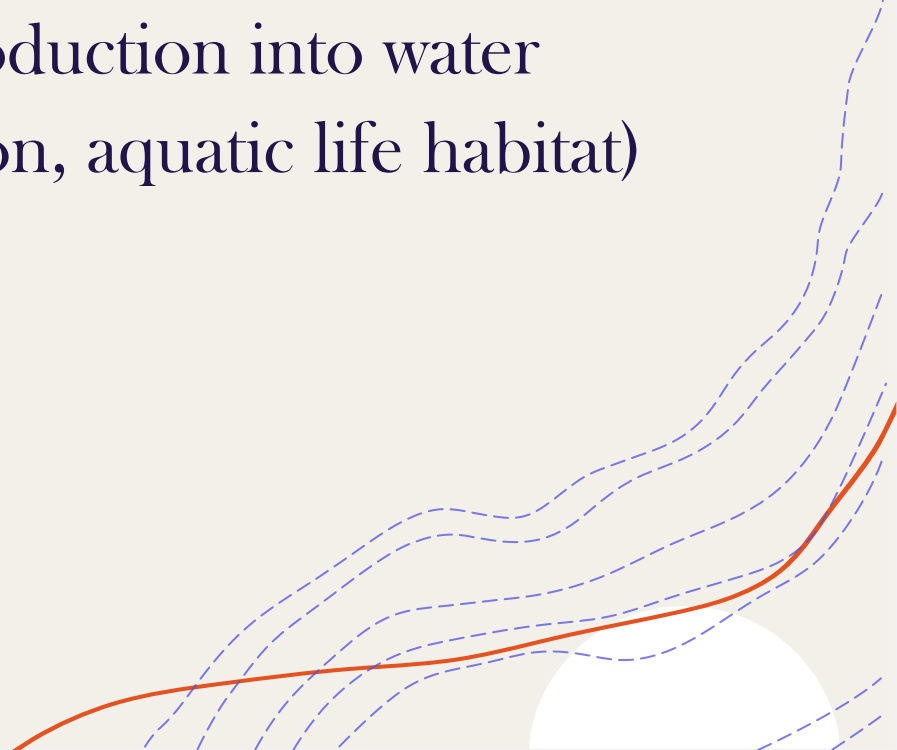
Survey Domain 9...Studies on Surface/Subsurface Impacts (Surf Mode Operations)



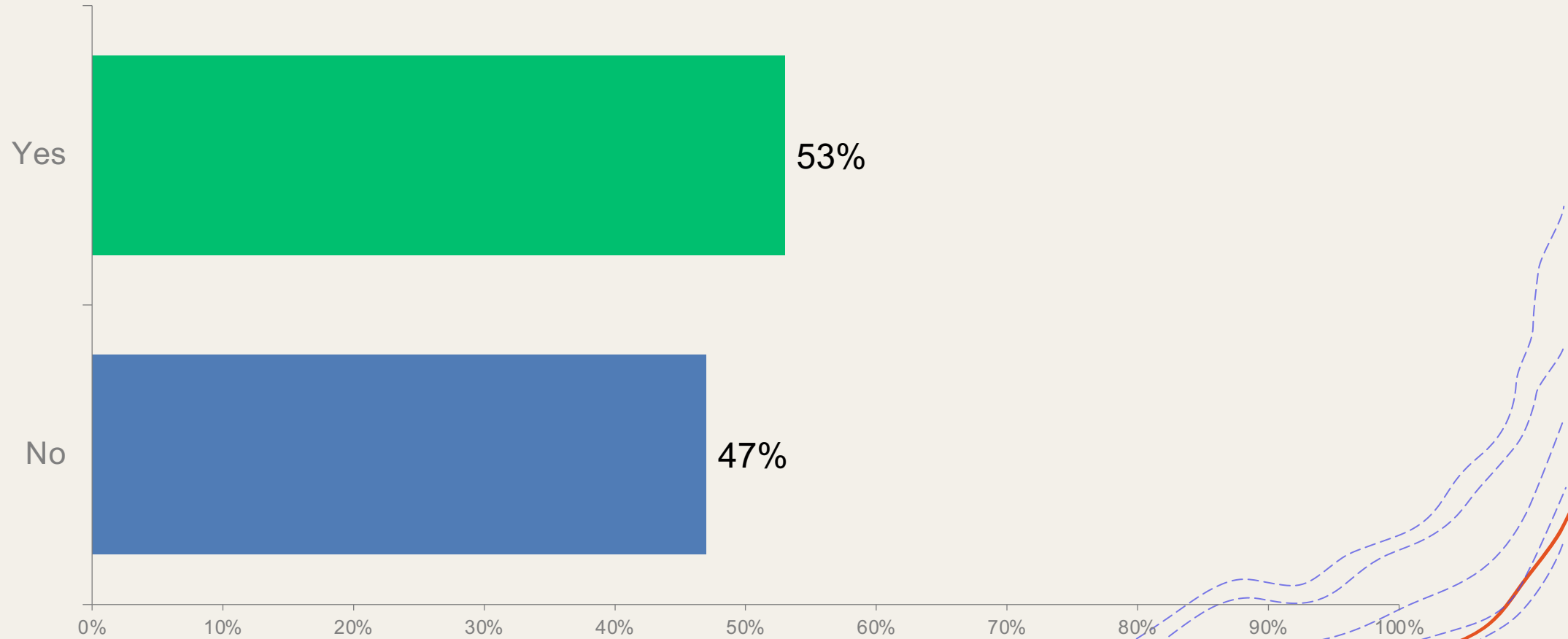


Domain 9 Awareness of Scientific Studies Demonstrating Both Surface and Subsurface Impacts

Survey respondent data depicts a near even split in community awareness of the studies revealing wave enhancing impacts to both surface and subsurface lake structures and composition. (e.g. sediment redistribution and nutrient reintroduction into water column, bottom scrubbing, shoreline erosion, aquatic life habitat)




Survey Domain 10...Regulatory Statute Awareness



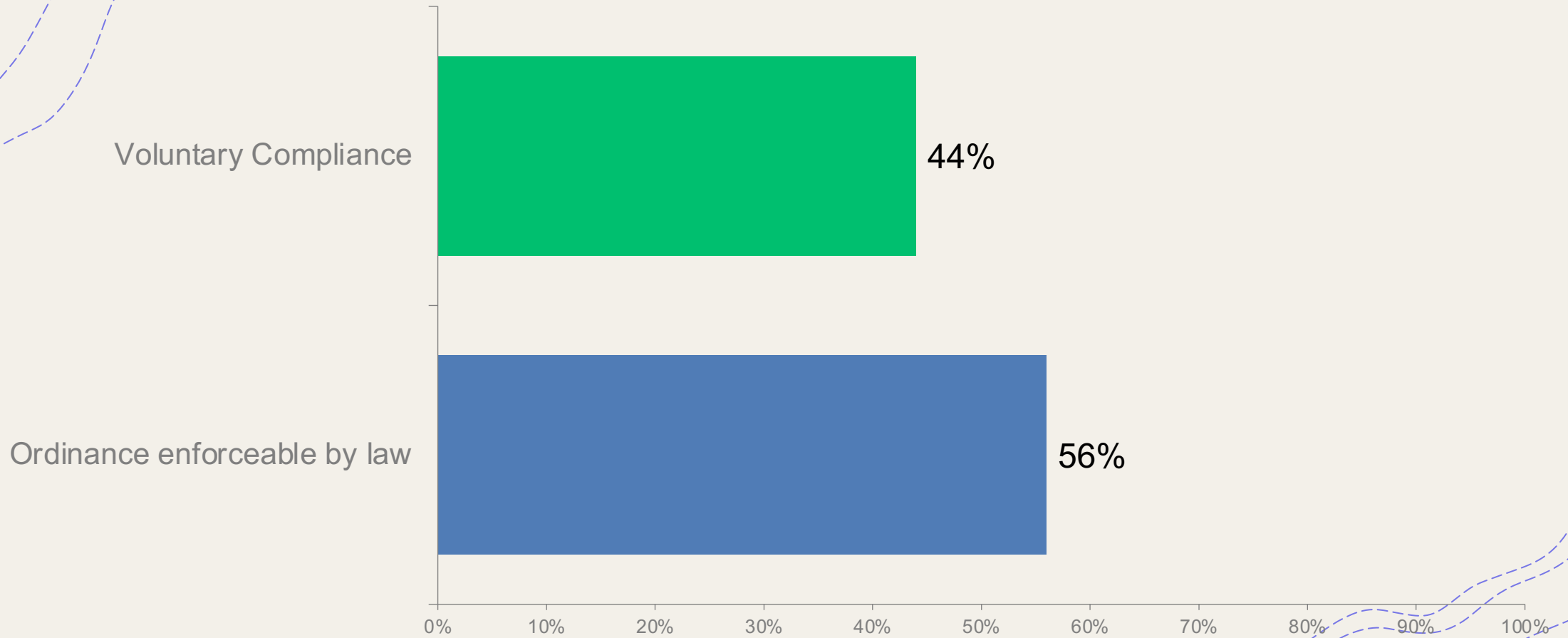


Domain 10 Awareness of Regulatory Requirements for Boat Operations

Survey responses reflect a near even split on awareness of state and local statutory requirements associated with boating operations (53% yes...47% no). These data suggest a *significant number of lake users are essentially unaware of requirements associated with safe boating operations.*



Survey Domain 11...Local Enforcement Disposition



Domain 11 Voluntary verse Statutory Regulations

A majority of all survey respondents (56%) favor statutory regulations, which are enforceable by law, with regard to unsafe operation of vessels on Lake Waramaug. Respondents who favor “voluntary guidelines” account for 44% in the survey response data.

* This is in comparison to the majority of Lake Property Owners who favor Voluntary Compliance (63%), with those who favor an Ordinance enforceable by law (37%)

Survey Domain 12...Awareness of Safety or Environmental Risks by Vessel Type

Personal Water Craft (PWC) or "Jetski"



Pontoon Boat 10%

Wake board boat in surf mode 64%

Fishing boat 7%

* Other (please specify) 23%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

* Other: (Any/all types of motorboats, excessive speed, tubing, ski boats)

Domain 12 Vessel Safety and Environmental Impact

A significant finding is noted with respondent reactions to vessel category. A high percentage of concern for safety and environmental impact are noted for personal watercraft (PWC) (321 responses) and **Wake Board Boats in Surf Mode** (338 responses).

This survey item also drew a large number of comments from respondents who described near miss events, property damage, fear of injury, and an inability to safely use the lake for other forms of activity.

Survey Domain 13...Direct Observation Safety and Environmental Commentary (Open-ended)

The following quotation categories are representative of concerns expressed by survey respondents:

Vessel Operator conduct:

“Our boat was directly damaged by wake surfing two summers ago. The waves were so powerful that they snapped our whip and the boat smashed into our dock. We were unable to have the boat in the water last summer... In summary, wake surfing has cost us money in damages and the investment in a mooring.”

“Wildly bouncing floating docks - can toss people and equipment into the water; shoreline damage from huge waves; danger to rowers of all types from rogue waves that ricochet around the lake (including those not directly trailing the wake boats) - these waves persist, interact and amplify in our small lake.”

Survey Domain 13...Direct Observation Safety and Environmental Commentary (Open-ended)

The following quotation categories are representative of concerns expressed by survey respondents:

Wave impacts to shoreline, water quality, and dockage

“Large high breaking waves similar to ocean surf hit the shore, even when the boat is far out from the shore. This is both a safety and environmental impact. Silt is churned to the surface and plant bits are fragmented and float over a wide area. Floats bounce and become unstable and destabilize occupants and chairs on the docks.”

“Motorboats pulling people on skis and floatation devices drive too close to people on paddleboards and small self-propelled boats. Wakeboards create waves too big of waves that knock people off of paddleboards and small boats. The wakeboards also create outsized waves that have broken down the shoreline on our property making it more muddy. The water quality in the lake has decreased over the past 5 years.”

Survey Domain 13...Direct Observation Safety and Environmental Commentary (Open-ended)

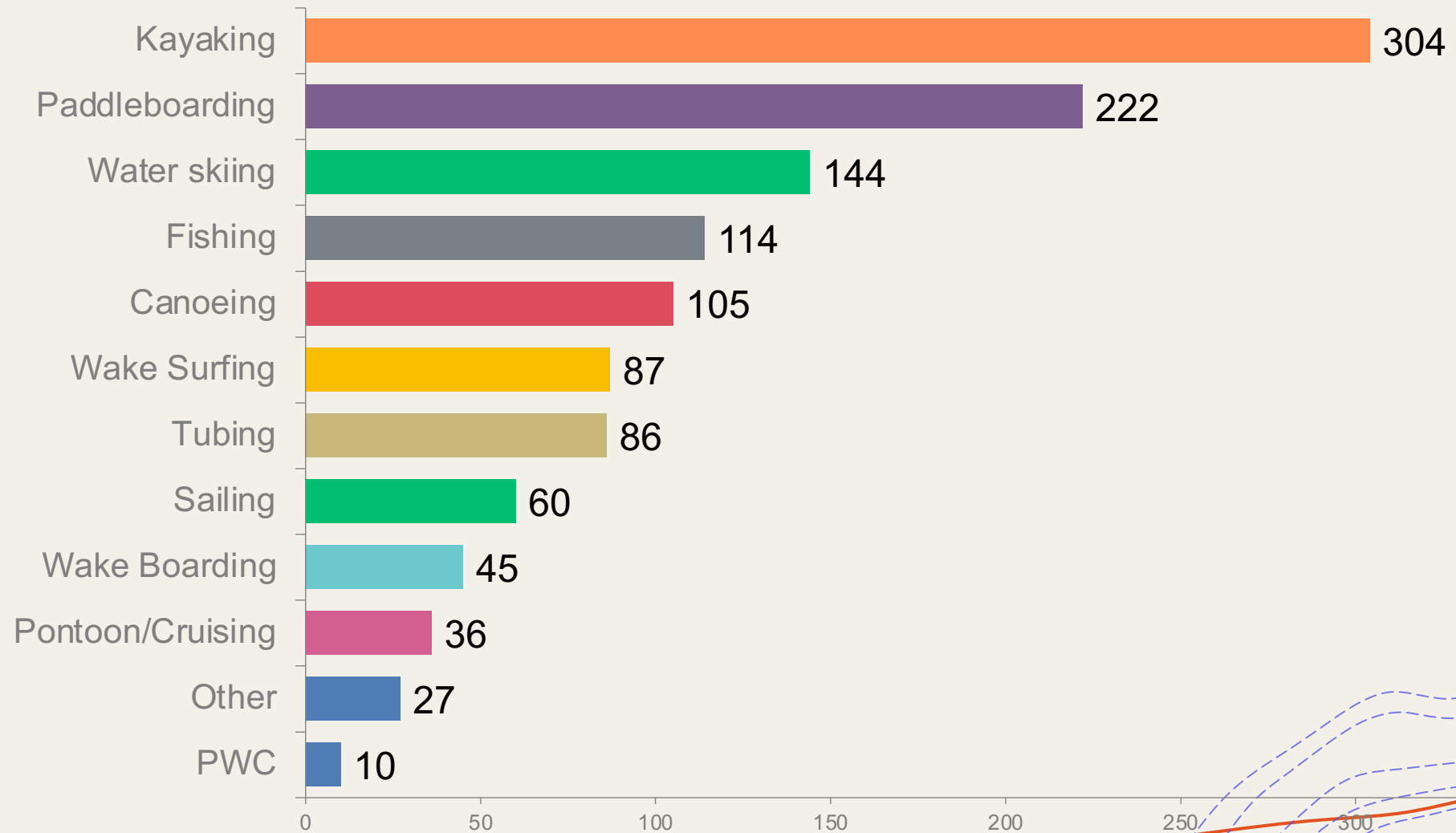
The following quotation categories are representative of concerns expressed by survey respondents:

Safety

"2 wake boats crossing their wakes cause huge crossing waves that nearly capsized our 14foot sailboat. We had to hold on for dear life as the boom shot from side to side and we lost control of our boat. We were lucky to escape injury. The wake boats were oblivious to what they did to us."

"As a boat pilot, here are the most dangerous issues I routinely encounter (in no particular order): - free swimmers without tow buoys in the middle of the lake- paddle boarders / kayaks at dusk without lights - boats of all types unaware they are crossing perpendicular to oncoming traffic - almost any powered boat below plane close to shore or in coves - tubing, where drivers are cutting S patterns or figure 8s."

Survey Domain 14...Boating Activity Type by Frequency Count (Number of Responses per Boating Activity)



Domain 14 - Boating Activity Type by Frequency Count

These data underscore the diverse types of boating activities that occur on Lake Waramaug. A significant percentage of boating activities are non-motorized vessels.

Clearly Lake Waramaug is a multi-user natural resource which necessitates that public policy attend to a stewardship role for the many different interests of lake users.

Survey Domain 15...Open End Commentary: Safety and Environmental Concerns (Personal safety/property damage)

Selected respondent comments reflecting other concerns related to the Lake and watershed:

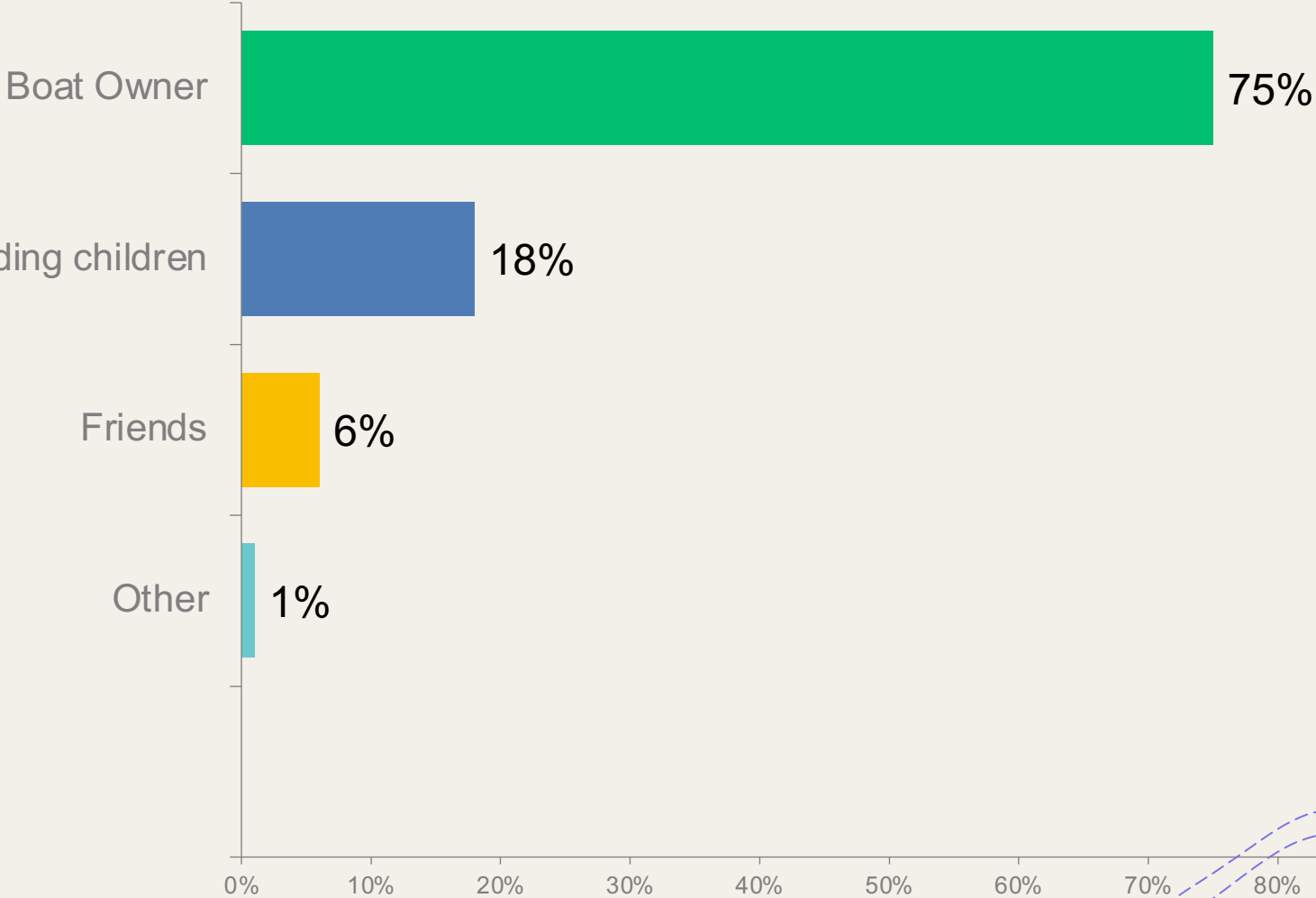
Goose excrement nuisance and nutrients

“I am actually very concerned about the number of resident geese on the lake. Their poop is what causes algae blooms and E. coli outbreaks. There is a huge need to cull the number of resident geese. Each goose releases about 2 pounds of poop per day, most of that directly into the lake or on runoff land. They are causing dangerous pollution with the bacteria they release.”

Watershed runoff (construction sites, lawn fertilizers, septics)

“Runoff, allowing excessive construction at properties with waterfront access (or across the road), leading to excessive drainage directly into the lake.”

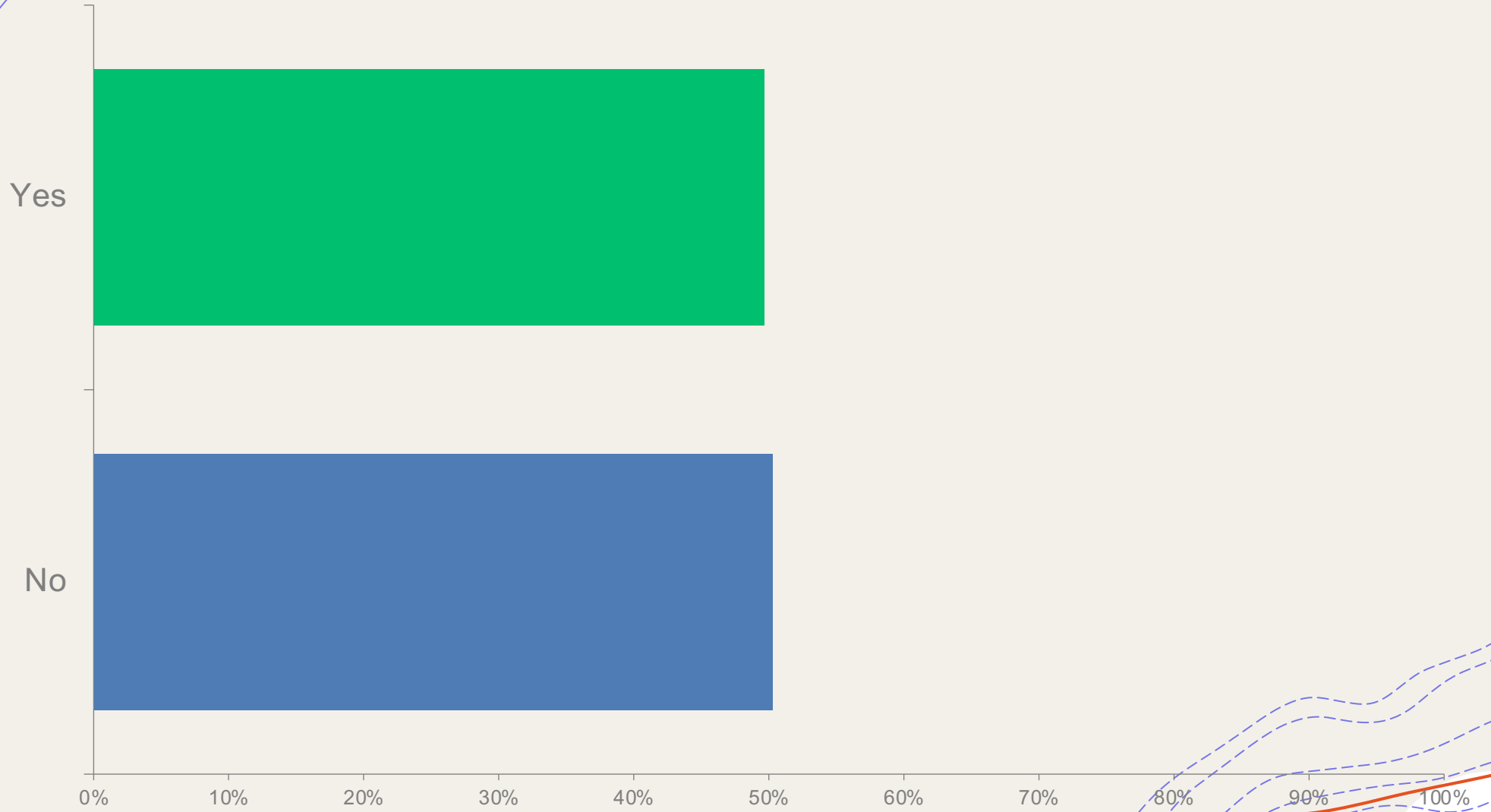
Survey Domain 16...Vessel Operator



Survey Domain 16...Vessel Operator

The largest percentage of vessel operators are boat owners. This is an important finding with implications for liability (personal injury litigation). The vessel operator is responsible for safe conduct and adherence to safe boating regulations. Vessel owners have a responsibility to assure that anyone who operates their boats are aware of safety and operating requirements and are able to exercise good judgement.

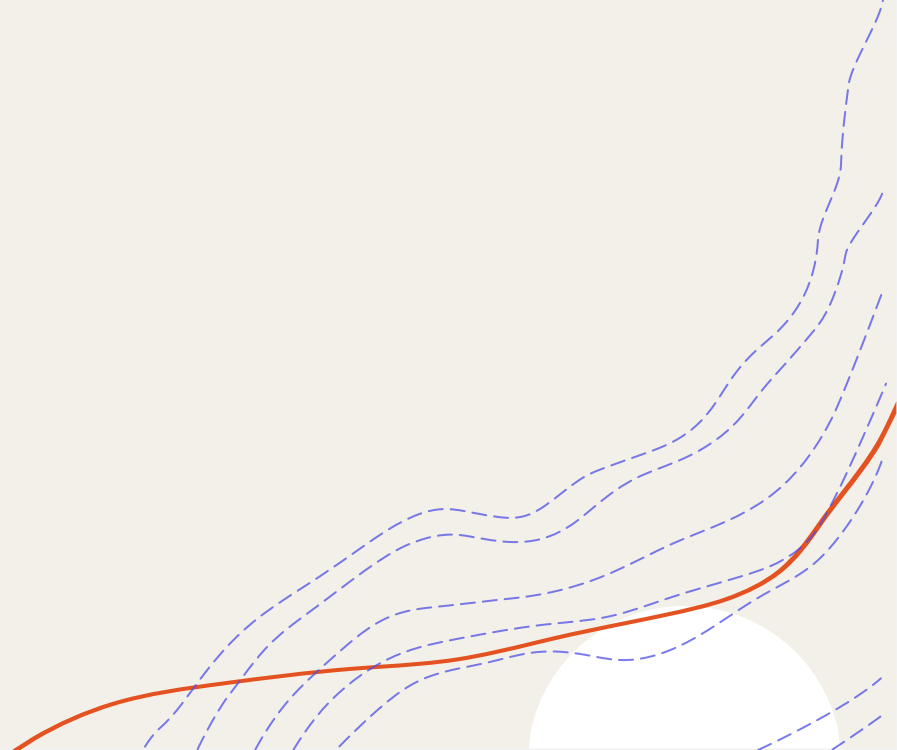
Survey Domain 17- Safe Boating Certification





Survey Domain 17...Safe Boater Certification Status

Because of the many types of lake users, increased education and awareness of boating safety should be emphasized (even to non-motorized vessel operators)



Survey Domain 18...Open End Commentary: Other Safety or Environmental Concerns

Common Courtesy

“Power boat noise, Boats using loud audio equipment, Loud individuals and families showing careless disregard for waterfowl, and other people visiting the lake”

“Disrespect, careless disregard of the safety or enjoyment of others, loud and uncivil behavior overall — all which greatly diminish the enjoyment of others.”

“I believe that Lake Waramaug should keep surfing boats. I have been using the lake for years and many of us surfers have been committed to being extremely respectful of other boaters and houses along the shore. We only travel along the middle of the lake to be respectful of those who are worried about waves.”

Summary and Conclusions

- PWC and Wake Surf mode operations are major concerns
- PWC and Wake Surf mode are proportionately a small percentage of lake usage with high identified impact
- High percentage of lake users are unaware/uneducated about safe boating regulations
- On lake boat operator conduct is not currently managed
- Widespread awareness that water quality impacts property values and quality of lake life
- Multi-user recreational lake with significant number of non-lake property owners taking an active interest and use in the lake
- Majority preference for enforceable regulations. This is in comparison to the majority of Lake Property Owners who favor voluntary compliance

Next Steps

The data reflected in this survey define a multi-user natural resource which is fully appreciated by local residents both on and off the lake.

There are a number of potential action items to consider based on the survey results. These include the following:

- Lake user education programs focusing on safe and courteous boating
- Boat patrol presence
- Development of a Stewardship Committee
- Science based guidelines to preserve the lake environment

Survey Appendices

- Open-ended responses for:
- Q12 Vessels currently in use on Lake Waramaug causing safety or environmental impacts (Other)
- Q13 Direct observations of vessels on Lake Waramaug causing safety or environmental impacts
- Q15 Other concerns or issues regarding safety or environmental impacts on Lake Waramaug that affect you and/or your property
- Q18 Anything else you wish to comment upon regarding safety practices or environmental issues for Lake Waramaug