

**Lake Samish
Proposal to Change
Ordinance 2019-046**

August 2019

SUMMARY LETTER

August 10, 2019

Dear Whatcom County Council,

We are writing to voice our support of a grassroots proposal to change specific aspects of the recently passed Whatcom County Ordinance 2019-046, originally introduced as AB2019-306. The grassroots proposal has overwhelming Lake Samish community support with more than 400 resident signatures representing approximately 290 households. The broad-based support was accomplished by conducting a door-to-door campaign informing each resident of the changes mandated by Ordinance 2019-046 and providing a detailed explanation of the grassroots proposal. The community also held a town hall meeting on July 31, 2019, which was attended by more than 150 people including Councilmembers, Byrd, Donovan and Sidhu. The Lake Samish community will seek to move the grassroots proposal through the Whatcom County Council approval process.

The unintended consequence of Ordinance 2019-046 is a decrease in boating safety on Lake Samish as all vessels are forced into the center of the lake. Since passage of AB2019-306, now Ordinance 2019-046, a group of residents sought to develop an alternative solution with greater specificity to target those activities generating larger wakes to ensure safety of all residents on docks/shore as well as for boaters/other watercraft. A solution that would keep the 300 feet restriction from shore and docks for wake surfing and wake boarding (no change to the recently passed Ordinance 2019-046 for these activities) but allow all other vessels to revert back to the 150 feet restricted distance. This type of solution would provide safety to residents on docks/shore who expressed concerns about larger wakes as the same 300 feet restricted space would be retained and this type of solution would result in fewer boats/watercraft being pushed to the center of the lake, thereby correcting the unintended decrease in boating safety seen after implementation of Ordinance 2019-046.

Ordinance 2019-046 moved the no wake zone by the Lake Samish bridge from approximately 350 feet out to greater than 2,700 feet. This reduction in usable boating space combined with all other restrictions on the lake result in nearly 40% of the Lake Samish's water surface being unavailable to boats traveling above 6mph. Moving the no wake zone out to greater than a half mile from the bridge further pushed vessels into a smaller space located in the center of the lake. This has resulted in the unintended consequence of decreasing boating safety. The grassroots group proposed the no wake zone be moved to approximately 800 feet from the bridge, roughly 2.5 times the original distance of approximately 350 feet. This placement lines up where the shore to shore distance is approximately 600 feet wide and is a logical placement point given the 300 feet shoreline set back distance.

The grassroots community proposal will seek two specific changes to Ordinance 2019-046

- Retain the 300 feet setback for wake surfing and wake boarding but allow all other vessels to revert back to the prior 150 feet setback
- Move the no-wake zone to approximately 800 feet from the bridge

The community proposal deals with concerns about larger wakes from wake surfing and wake boarding with greater specificity compared to the language in Ordinance 2019-046. The community proposal will reverse the unintended safety issues raised by Ordinance 2019-046 while providing the same level of protection/safety to residents who expressed concerns about dock and shoreline safety.

We ask for your support as this community proposal moves forward. Clearly with more than 400 residents, representing approximately 290 households in support of the grassroots proposal this solution has been extensively networked gaining overwhelming community support.

For full transparency, we have attached the same documents used during the door-to-door outreach to the community, (Talking Points Document, Map of No Wake Zone and WSIA Wave Study). We will reach out to each of you seeking to gain a short one-on-one meeting to review the proposal and answer any questions that you have.

Regards,

Eric McHenry, Paul Joosten, Rich DeVeau
Lake Samish Residents

LAKE SURFACE REDUCTION

Lake Samish Total Boating Water Surface Reduction

Total lake surface is 810 acres per public record or 1.266 square miles.

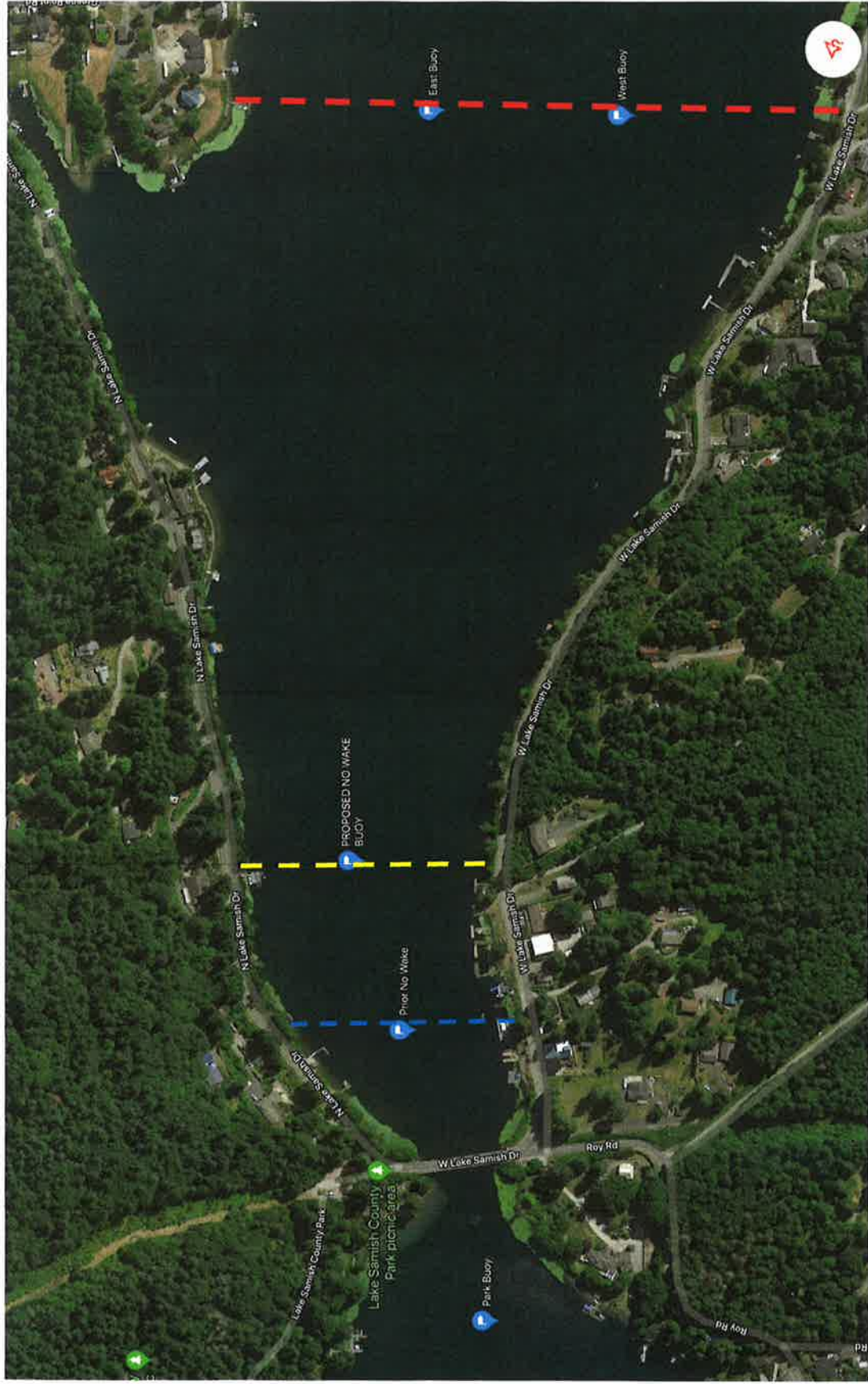
Took an average of 200 feet from the shoreline, 150 setback from shoreline and 50 feet average length of docks. Some parts of lake have no docks other parts have docks greater than 100 feet, so 50 feet is a conservative estimate. A 200 feet total shoreline setback, if anything, slightly understates the real area lost. At 200 feet it takes out 198 acres of the lake. Prior to June 4, 2019 ordinance then, there was approximately 612 acres for boaters.

If you then take another 150 feet out from the 200 feet mark it takes out another 109 acres. Less than the 198 above as the distance is only 150 wide vs 200 wide used above and the ring around the lake is smaller as it sits inside the 200 feet to shoreline area. (inside lane will be smaller).

If you then take out the additional space for the no-wake (without double counting the portion of the no wake that is takeout by shoreline set backs) that space is another 22 acres.

Total lake water surface area	810 Acres (published data)
200 feet shoreline avg (dock at 50 plus 150)	198 Acres taken out (leaves 612 usable)
<u>Additional 150 feet from the 200 feet line (June 4 reg)</u>	109 Acres taken out (leaves 503 usable)
<u>No wake area (not doubling counting shoreline setback)</u>	22 Acres taken out (leaves 481 usable)
Net space for boats approximately	481 Acres usable
With setbacks non-usable space is	329 Acres or a 40.6% reduction from 810
The June 4 changes take out 122 additional acres	131/612 is a 21.4% reduction in lake space, compared to what was available prior to June 4

NO-WAKE MAP



Blue Line – Original buoy location approximately 300 to 350 feet from bridge

Yellow Line – Proposed buoy location approximately 800 feet from bridge

Red Line – Post Ordinance 2019-046 buoy location >2,700 feet from bridge

PROPOSAL TALKING POINTS

Talking Points – Proposed Lake Samish Boating Ordinance

Boat Shoreline/Dock Restricted Setback

- 300 feet for active wake-boarding and wake-surfing from shoreline and docks, these activities are often grouped by people and called “wake boats”. Active wake-boarding or wake-surfing is when waves are generated. Hence our focus on the activity’s vs the boat.
 - Distance is from docks which means the effective distance from shoreline will be 350 to 375 feet as docks typically extend 50 to 75 feet from shoreline
 - Allows for wave dissipation, Water Sports Industry Association (WSIA) study concludes that 200 feet from shoreline provides adequate wave dissipation. See WSIA study. Our proposal from shoreline is nearly twice that distance (see point above talking about effective 350 to 375 distance).
- 150 feet for all other watercraft
 - Allows all other watercraft to use the 150 to 300-foot lane again so that not all watercraft are pushed out towards center of lake.
 - Our proposal employs a targeted approach for activities that generate waves that should be done further off shoreline, specifically wake-boarding and wake-surfing. Other watercraft activities should be able to revert back to the historical distance of 150 feet from shoreline/docks.
 - Less congestion will raise overall lake safety

No-Wake Zone

- Move closer to bridge. With the changes in June the no-wake zone today extends out more than ½ mile from bridge, greater than 2,700 feet. It used to sit approximately 350 feet from bridge. Our proposal will move the no-wake buoy to a point that is approximately 800 feet from bridge. A compromise position that is over double the original distance of 350 feet, provides enhanced safety but is not excessive.
- No-wake means you need to run your boat at essentially idle, the current no-wake buoy line means that you have idle for over ½ mile to travel from one side of the lake to the other. This is simply excessive.
- MAP
 - Red line is greater than 2,700 from the bridge and is the current no-wake line today.
 - Blue line is approximately 350 from the bridge and marks where the no-wake line was for years
 - Yellow line is approximately 800 feet from the bridge and marks where our proposal would place the no-wake buoy. At this point the distance from shore to shore narrows to approximately 600 feet wide. A logical place to locate the no-wake zone. Remember no-wake means idle speed not 6 MPH, that distance needs to be reasonable.

SUMMARY – Our proposal is a reasonable compromise position to the changes that were rushed through in June 2019. Our proposal will increase boat safety due to less congestion, not forcing all watercraft to center of lake but rather employing a targeted approach for activities that generate waves that should be done further off shoreline, specifically wake-boarding and wake-surfing. Our proposal will provide adequate wave dissipation supported by an empirical study from WSIA. Our proposal sets a reasonable no-wake zone that will provide increased safety (less congestion as the area around Green Point will not be restricted), while doubling the distance of the no-wake buoy compared to where it has historically been for many years.

PROPOSAL PETITION

WSIA – WAVE STUDY



With a goal to scientifically measure the energy produced by towboat wakes and waves, the first-ever Towed Water Sports Wave Energy Study was conducted in the Spring of 2015 in Orlando, Florida.

Clifford Goudey, ocean engineer and naval architect, is one of the most distinguished experts on wave science in the field today. Mr. Goudey commissioned the assistance of Lewis Girod, PhD, who is an accomplished software and sensing engineer. On March 23-27, 2015, the pair conducted an extensive study on the Conway Chain of Lakes at two different sites to measure energy at a shallow-water profile and deep-water profile, while also monitoring the effects of wind-driven waves.

A 2015 Nautique G23 was used for testing with 2,850 pounds of factory ballast with an additional four sacks weighing 350 pounds each for a total of 4,250 pounds of ballast and a total vessel weight of 10,150 pounds.

What did WSIA learn from the scientific conclusions that emerged from the wave energy study?

1. Wakeboard and wakesurf wakes/waves, when operated at least 200 feet or more from shore, do not carry enough energy to have a significant impact on most shorelines or on properly maintained docks and other man-made structures.
2. The maximum wake/wave height associated with wakeboarding and wakesurfing drops 27 to 56 percent in the first 100-150 feet of its travel from the boat path.
3. Boat wakes/waves from cruising boats, recreational boats included, dissipate more slowly and lack the initial drop in size associated with wakeboard and wakesurf wakes/waves.
4. A Wakesurfing boat passing a section of shoreline every nine minutes is less damaging than naturally occurring waves from a 10 mph wind with one mile of fetch.
5. A wave loses the most significant amount of energy upon its initial break. This happens very quickly in wakeboarding and wakesurfing due to the wakes steepness, while a wave created by a boat at cruising speed with less displacement can fail to break while moving towards the shore, preserving its energy.

While the study has demonstrated that, in most conditions, wakesurfing and wakeboarding are far less destructive than naturally occurring waves, the WSIA still strongly recommends the following:

1. Always try to wakeboard or wakesurf in the center of any given body of water, and avoid narrow channels or thoroughfares, if possible.
2. Always try to stay at least 200 feet away from any shoreline, dock, or fixed objects.
3. Maintain a reasonable sound level on your stereo.
4. Always respect the shoreline you are using and if the property owner asks that you leave, do so immediately, and always be gracious with the property owner.
5. Repetitive passes result in an accumulation of energy reaching the shoreline. Repetition is never a good idea and can lead to risk of waterway conflicts.
6. The non-surfing side of a wakesurfing boat creates waves that are 10% to 23% smaller with 23% to 33% percent less energy than the surfing side. When possible, present the non-surfing side of the boat to the closest shoreline.
7. Waves tend to increase in height on the inside of a gradual turn. Avoid such maneuvers close to shore.
8. Glass calm water is not a requirement for wake surfing, be respectful and operate as far from shore as you can.

ALLEGED DOCK DAMAGE

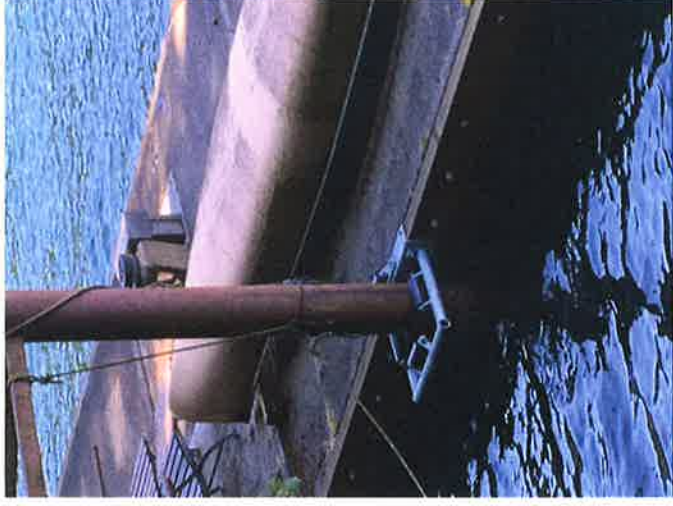
ORIGINAL DOCUMENT PHOTO/COMMENTS IN BLACK

The original piling guide was attached with six inch lag bolts which were torn out of the dock by wake action. The replacement pile guide cost \$160 x2 then required modification for an additional \$100 to fit the piling (total \$420). On top of that would have been an installation charge.



Note: Rusted U-shaped bracket at base of dock that is past it's useful life. The bracket appears to be nearly rusted through at one joint. Additionally the bracket is not robust enough to adequately support a long heavy cement dock attached to steel pilings. The support was old and was in fact replaced by the owner with a new more robust bracket with multiple fastening points to the dock. The bracket did not employ a system to reduce friction between the support and the steel piling, resulting in significant stress to the U-shaped support bracket. The owner in this case was doing normal preventative dock maintenance with a reported cost of \$420. This is an expected ongoing support expense associated with owning a large cement dock, that according to the owner weighs a staggering 33,000 pounds, and is not attributable to wake damage. The U-shaped support is nearly rusted through due to extended length of service or the part was not properly designed (not designed with rustproof materials). Rust failure of the support clearly is not from boat wakes.

JULY 27, 2019 PHOTO - MY COMMENTS IN RED



Note: Same dock, picture taken July 27, 2019. New support bracket installed. Support is significantly more robust than prior. It attaches to the top and side of dock for greater strength. It employs a roller system to allow dock to slide up and down the support piling with less drag, this will decrease stress on the dock and support. Remember the owner of this dock stated that it weighs 33,000 thousands pounds, which will exert significant stress on the support bracket. (photo taken from public road July 27, 2019)

ORIGINAL DOCUMENT PHOTO/COMMENTS IN BLACK



This float tore away from the piling it was attached to due to wake action. The owner had to retrieve it and reattach it to the piling.

Note: Upper right picture – two separate floats are connected by wood that is severely decayed and is not structurally sound to bridge two floats. The float on the left side of the picture has top boards that are badly worn. Top boards on left dock have been replaced which is good. (photo taken from public waterway, July 27, 2019)

Note: Center picture – closeup of installation where two floats are joined. No residential or commercial dock installer would design or build a dock to the specifications displayed in this photo. There will be predictable performance issues with this dock that are unrelated to wake waves. Dock owners have an obligation to properly maintain their dock and this dock is clearly not well maintained. (photo taken from public waterway, July 27, 2019)

Note: Far right picture – structural support beams at the waterline are held together with rope. No bonded dock installer would build a dock to these specifications. The construction will lead to ongoing issues as it is not properly designed or installed. (photo taken from public waterway July 27, 2019)

JULY 27, 2019 PHOTO - MY COMMENTS IN RED



ORIGINAL DOCUMENT PHOTO/COMMENTS IN BLACK



Note: Upper picture – This is the original picture in the Document. Wood is rotten and no longer structurally sound. This boat house has not been kept in good repair by the owner.

Note: Right picture – Boathouse appears to have been in consistent decline for an extended number of years. Note the rotted wood on left side of boat house along waterline. Homeowners have an accountability to maintain docks and boat houses in good working condition. Without ongoing preventative maintenance the structural integrity of docks and boat houses will decline as evidenced in these photos. (picture taken from public waterway July 27, 2019)

JULY 27, 2019 PHOTO - MY COMMENTS IN RED



RESIDENT AT 16 GREENE POINT ROAD

- Resident did not include photos of his dock originally
- Did submit letter in Document



Note: Upper left picture – Wide view of dock showing extensive plant growth in dock. This will weaken dock and is a sign of failing wood. As stated by owner, note the reinforced piling sleeves which will help extend the useful life of the dock. The cost however associated with this type of repair is in fact a predictable event for old wood pilings, which often give out at the waterline. Looking at the condition of the float it is easy to extrapolate that pilings were in the same state of disrepair, prior to repair. (photo taken from public waterway July 27, 2019)

Note: Upper right picture – Closer view of same dock where there is apparent wood decay, which will significantly weaken the structural integrity of the dock. (photo taken from public waterway July 27, 2019)

Note: Lower right picture – Dock float is supported by old technology white styrofoam. This styrofoam will eventually become water logged and provide less buoyancy pulling the float deeper into the water. (photo taken from public waterway July 27, 2019)

JULY 27, 2019 PHOTO - MY COMMENTS IN RED

