Sacheen Lake Association
Special Community Meeting re: Wake Damage
October 5, 2024, 9:00 am

1. Introduction

The Sacheen Lake Association (SLA) facilitated a meeting for the Sacheen Lake community to discuss concerns about wake damage on 10/5/24 at the Hwy 211 fire station. The SLA had prepared and sent the presentation for the meeting out on 10/2/24. SLA Board President Grant Miller chaired and opened the meeting with the explanation that the SLA Board advocates for the community and that they are not setting laws or enforcing any laws. He proceeded to review the slides of the presentation. However, not all slides were specifically addressed. With extensive audience participation, the meeting lasted for three hours.

This document contains meeting notes summarizing the audience participation and the Chair's response to audience members. Additionally, Chair Miller prepared information after the meeting to address several comments made during the meeting, which are included as Addendum. Detailed audience interjections were not recorded, but the notes herein appear representative of the overall discussion. Thoughts that occurred after the meeting by the Chair about comments made during the meeting should begin with something like: Post meeting comment. This document does not include a summary of the information presented by Chair Miller.

2. Meeting Discussion Notes

Audience comments made during the meeting are in the bullets below. Summarized responses from Chair Miller as presented in the meeting and further explained during the writing of these notes are in parentheses. Non bulletized paragraphs present some summary of information presented by Chair Miller and the guest speaker, Deputy Kevin Olsen.

- What involvement is there for a lot of people who work/aren't around to participate? (The meeting notice was sent out several weeks prior to the meeting. The slides were sent to all available emails once completed 3 days prior. Slides will be posted on the SLA website. Finally, the meeting is available on Zoom[1]. Chair Miller noted that another meeting can be held in the summer season of 2025 to reach more if that's what people want. At least one person in attendance said they did not want to speak up during the meeting but expressed comments via email afterwards. Therefore, after the meeting, Chair Miller started an SLA effort to have a web-based survey completed in early spring to obtain as much anonymous community input as possible. The SLA will consider mailing a postcard to all property owners to announce the survey. He also expressed to the audience that all SLA Board members are volunteers.)
- Why not meet in the summertime? (Additional wake damage issues were sent to the SLA via email during the summer, to which Chair Miller then requested photographic

[1] The Zoom was, unfortunately, started later than the meeting started. Additionally, the slides were not illustrated via the Zoom link since the Zoom was activated on a computer other than the one presenting the slides. However, anyone with the Zoom link also had a digital copy of the slides to follow along.

evidence of the community via email on 19 August 2024. After receipt of multiple emails, the Board discussed how to address the community concerns at our 8/28/24 Board meeting under the topic: "Hold a special community meeting on wake boats?". This presentation required additional research on wake boat waves and a review by the Board of the material leading to our 9/25/24 Board meeting approving the presentation package. The meeting date was set for the end of September at our August Board meeting, knowing that the package generation would take time. The community meeting was held as early as possible, including a weeklong delay due to the unavailability of the fire station. As previously noted, the slides for the meeting were completed the Wednesday prior to the Saturday meeting.)

- Looks manipulative—30 to 40% of lake residents don't live here after Labor Day—recommended to table the issue until more residents can be involved and have more opportunity to voice opinions. (We are touching on the issues now to continue the educational process, not necessarily making decisions now, and can continue the discussions into next year. The presentation was made with the assumption that we plan to move forward, but that is just the process we are using to promote discussion.)
- Every boat is a wake boat. Dave: Any boat can stay "wake making" without being a "wake boat". Rod agreed. (We are using the definition of a "wake boat" as one that artificially creates a large wake. Artificially means through a design, e.g., a bladder, or operations element, such as sustained operations in the planing transition mode.)
- An audience member questioned the use of 1200' as the guideline and insisted that there are other places where 1000' is available, e.g., across the bay from Cedar Creek. (Chair Miller had already explained that the U of Minnesota study indicated that a wake boat in artificial wake mode needs another 500' to have their wake dissipate to the same size as a normal recreational boat. That implies that in order for the wake at the shoreline, dock, swimmer, stationary boat, etc., to have the same impact as the 100' law does for recreational boats, that the wake boat needs to be 600' from shore, etc., not 500', i.e., ½ of the 1000' width proposed by the audience member. He also clarified that the sign created by the SLA is a recommendation and wake boat operators can do what they want as long as they are not violating the existing 100' law and POC ordinance.)
- The study addresses wave facts—nothing regarding damage; 500' is a projection. (Correct, it takes 500' **more** to dissipate waves. Chair Miller had additionally presented the kinetic energy from a second study. The damage from a wave comes about by the kinetic energy in the wave. The more kinetic energy, the more damage. Similar common sense applies to a car at a slower speed versus a higher speed; the kinetic energy is higher at higher speeds. A wave's kinetic energy is related to the size of the wave (e.g., bladder use vs. no bladder use by the exact same boat) as was presented via the 2nd study's results. Comparing slide 14's Fig 5b for the 200m bar and 5d for the 100m bar, the figure illustrates that at 200m a wake boat with one bladder side filled makes more wake kinetic energy than the exact same boat at 100m with its bladder empty. That is, more than 100m (> 300') of distance is required to dissipate the artificially created surfing wake energy. See the addendum for a linear projection of the data which illustrates equal kinetic energy at 230m for 5b vs 5d, or 130m more (~426'). That is, the numbers of the two studies are in alignment with each other. Chair Miller indicated that the damage aspect of large wake on Sacheen Lake is the empirical evidence provided by the community, which was present in the 2023 survey results and the 2024 photographic evidence, both of which

were included in the presentation. See the Addendum for additional information on wave energy.)

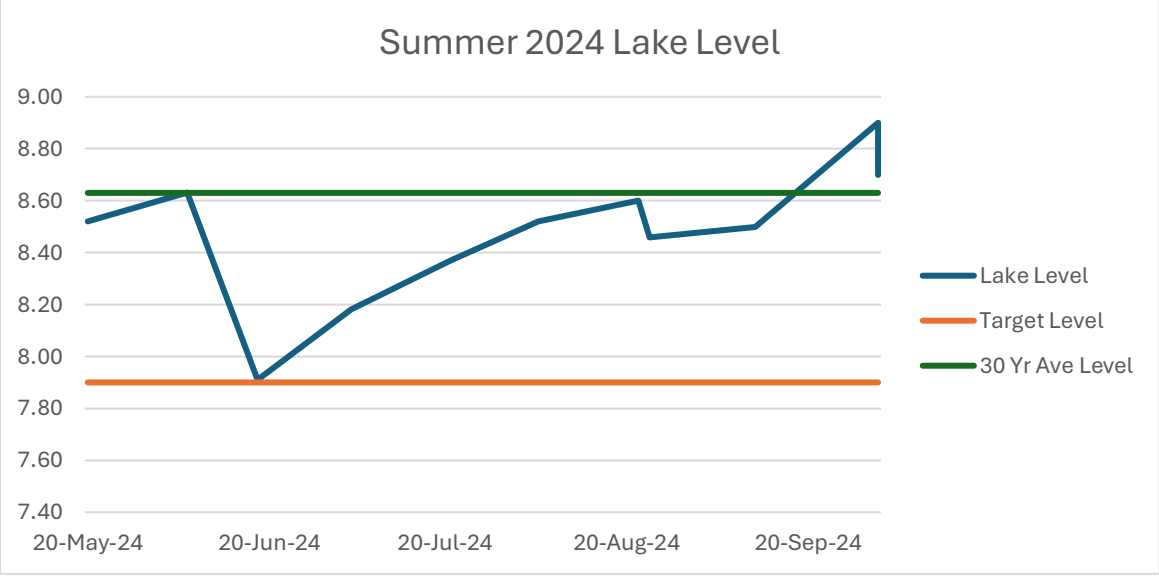
- The person's nephew teaches at WSU (can't attend today) and the nephew indicated data can be manipulated. Daughter looked it up on AI and found no evidence that a 40-acre lake can't have wake boats (Sacheen is 310 acres. Chair Miller indicated that we are trying to present scientific facts/technical data and community empirical data. Chair Miller also presented quoted Google AI search results showing that many states are in fact taking proactive steps to minimize the impact of a wake boat's artificially large wake and that the Wisconsin laws being put into place account for lake size in the ordinance template. Post meeting comment: The absence of information regarding wake boats on a 40-acre lake does not imply that wake boats on a lake that size do not cause problems.)
- Dissipation doesn't need to happen fully by shore; if a wake boat is in the middle, it is equal to a ski boat being ½ way between the wake boat and the shore. (Post meeting comment: The measured data from two independent studies doesn't support this statement. As identified in the two studies, a wake boat needs an additional 500' to dissipate its energy to that of a normal recreational boat. Therefore, a ski boat at 100' from shore that is following WA law, will have significantly less impact than a wake boat at 200' from shore. The wake boat would need to be approximately 600' from shore to have the same impact as the ski boat.)
- This data is from a lake in Canada, which is about 20' deep and has farm runoff on the bottom and is therefore not applicable to Sacheen Lake. (Chair Miller pointed out that the study referenced addresses both issues of prop action and its sediment disturbance and the wave energy traveling through the water as a result of bladder / no bladder use. The study also notes that the type of shoreline doesn't make that much difference. Chair Miller indicated that the depth of Sacheen is more than 20' throughout most areas of the lake, therefore the key concern is the kinetic energy from the wake. Post meeting comment: See the addendum which discusses the impact of depth and impact on kinetic energy of the wave; the depth has little to no impact as long as the depth is greater than ½ the wave height. For the most part, in Sacheen Lake with artificially created large wake, the bottom will not hamper wave energy until it reaches an object or the shoreline.)
- Linda: Lives on the west end and thinks the high-water level is because of the beaver dam, which is causing the loss of her retaining wall. Beaver dam maintenance is not being done. Dock and shoreline damage is due to a lot of contributing factors besides and in addition to wakes. (Chair Miller indicated that yes, beaver impacts are being mitigated and noted that three trips have been taken since August 22nd. The lake level was up significantly in August compared to June and July, which were basically equal and level throughout the month. The lake level volunteers are trying to measure the lake height every 2 weeks, but the beavers are very active and can make a big change in that time period. Additionally, the Hydraulic Project Approval does not allow us to remove dams, but we can clear the tubes.)
- Rod: No beaver trapping was done last year as the trapper broke his leg. The W&SD is planning to start up soon this year so that should help the level. (Post meeting information: another tube cleaning trip should occur the week of 13 October.)
- Reese: Could help with bever dam clearing. (Contact info provided post-meeting.)

Grant noted that most docks are about 25' long, so boaters need to consider the dock length plus the 100" requirement for wakes.

- Allen (sp?): Do you guys dispute that wake boats cause damage?
- Rod: Doesn't matter the type of boat if you're breaking the law. How is the law enforced? More laws won't help if they're not enforced. Could make Sacheen like Davis Lake with no wake allowed at all. (Chair Miller noted that nobody wants Sacheen Lake to be a no-wake lake, and the slides presented captured this information and possible approaches to ensure it would not occur. Post meeting comments: However, if there is a no wake boat, large artificial wave making or continued plane transition mode allowed, the honest person will abide and only those ignorant of the law or those wantonly breaking the law will do so and this alone significantly reduces the likelihood of wave damage on Sacheen Lake. And technically, Rod's broad-spectrum answer is only partially correct about it doesn't matter which type of boat if the law is being broken. For example, a wake boat in bladder mode within 100' of the shoreline or dock has a much greater potential to cause personal injury or property damage than a non-bladder boat at the same speed and distance. The intent was good, however, in that being inside of 100' as compared to outside of 100' makes a difference and is breaking the law.)
- Woman from Kohles Beach (northwest side of lake) doesn't have pics, but while sitting in lawn chair on the bank a red and white boat created waves that bucked up the dock.
- Rod: We want everyone to experience the lake.
- Shauna: Most problems are from people who rent short-term (AirBnB, VRBO etc.). (We can ask the County to ask renters to include wake information in their information packets and sign a disclosure. The SLA is looking into County requirements for renters and may propose an augmentation of the current ordinance.)
- Yes, include in AirBnB rule book. (SLA's new wake boat op-area sign is directed more toward visitors.)
- Most people are respectful, but the volume of boats creates multiple wakes. (And as noted during the meeting, volume creates traffic problems wherein it is difficult to meet the 100' requirement from others in the water or the shoreline/docks.)
- Repaired a dock frame (not in water); has lost 6-8' of shoreline in 30 years.
- Have been replacing docks and shorelines for 60 years, it's part of normal lake life.
- The lake level was significantly lower in the 1950's than it is now. That has affected properties built back then.
- Lives on the small end of lake for 60 years. The person noted that they won a court battle against the thought that if there is a highly restricted speed limit on one end (west end), then the lake has to have the same speed limit on the other parts of the lake. Use common sense.
- A lot of wake boat data is BS. (Post meeting comment: if this person who made this comment would like to send an email to the SLA backing up this statement with facts, we will consider it and make the evidence available to the community.)
- Only three weekends of the year are bad. (Post meeting comment: Chair Miller interpreted this statement to mean total traffic load the lake sees and the resulting impact from cumulative effects of waves and the force they create occurs only three weekends out of the year. This does not, however, make any measured data false relative to the impact of a single wake boat in bladder mode.)

- Weeds dumped offshore; noisy airboat; geese…. (Issues for another time.)
- Shady Rest/Reed's Landing: Use common sense when the lake is busy; storms cause damage; boat house is 2 feet underwater after years; have to make repairs every year—not necessarily caused by wake boats. (Post meeting comment: The phrase "use common sense when the lake is busy" is codified into law as was illustrated by Chair Miller on slide 17, with the specific law provided on slide 21. The SLA does not dispute the cumulative effect of many factors causing damage to property, including prolonged wear and tear, the sun's UV ray impact on materials, etc. However, personal injury is not a cumulative impact concept. Prior cumulative effects may also exacerbate the impact of one larger force event, or the one event may be the only one strong enough to cause a break. E.g., trees bend and reshape after many smaller storms, but can be broken in half with one large storm. The purpose of illustrating the wake test data was to educate people on the amount of additional force wake boats in bladder-use or continued planing transition mode make compared to non-bladder use. Whether people want to accept that data or not is not up to the SLA, but community empirical data and eyewitness testimony was also presented.)

Grant: The ideal lake level has been historically established as 7.9 on the bridge meter. If significantly above, then the lake level manager assesses the need to act. Recent droughts resulted in 7.3 in August of 2023 (lowest level in our recording history) and with multiple years of very low levels, i.e., no beaver damming activities had to be countered. (Post meeting comments. See the chart below for lake level behavior this summer. The first action this year was taken after the lake level was measured at 8.52 on 5 Aug (it takes time to coordinate with the property owner and volunteers. Clearings occurred on 22 Aug, 6 Sep, and 2 Oct. The lake level was as up to 8.9 before we did the third tube clearing action. That day it dropped to 8.7. A lake level has not been taken since 2 Oct, but the flow over the barrier dam on Harworth Rd downstream of the beaver dams has been examined twice and it was strong both times.)



- Is 8.5 level problematic going into winter? It will be bad in spring. (Post meeting assessment: See some data analysis on this issue in the Addendum. Independent of the

data, it may or may not be a bad spring based on weather, beaver management, and tube clearing activities. The SLA is working with the lake level manager and the W&SD to address clearings and beaver trapping to continue to reduce the lake level this fall.)
- Stay in the middle, but others should share in the effort by not parking kayaks in the middle, etc.

3. Deputy Kevin Olsen

After summarizing current laws and POC ordinances, Grant introduced Deputy Kevin Olsen, who spoke on providing videos/boat registrations, etc. He said the prosecutor is okay with video and pictures of suspected law breakers, but there can be a problem with depth perception in photos. If you're able to get a pic of the hull number (after the fact) they can contact the owner. Educating people can help stop some infractions. He recommended calling dispatch; send pics to the deputy (via email) who returns your call; keep the emails small and/or use text. The Sheriff's lake patrol has been light because 6 of the 12 deputies were out last year. Two will be attending Marine Patrol classes next April so it should be better next summer. He noted that normal patrols take priority over boat/wake issues. He said there are no state laws, no ordinances, and State Parks are the same (evidently, they were considering restrictions but were shot down – the Deputy did not clarify his comment). POC law enforcement can only enforce if the 100' law is violated. (Post meeting thought: nobody asked the Deputy about the negligence aspect of the law, i.e., the common sense nature of the law.)

- Rod: they need to come to the lake from noon on, not in the mornings when it's quiet.
- Do other lakes have the same issues? Deputy Olsen said yes, and also said they can't clock the speed so can only give a warning.
- Karlene said she saw a jet skier speeding with no lights on after dark. Deputy Olsen said if you know who it is call the deputies and they will try to find them.

4. Continued Meeting Notes

Possible Courses of Action Discussion

- Buoy placement by the Sheriff and County Commissioners to annotate 100'. (Chair Miller indicated that the current safe boating ordinance would not allow this; buoys may be placed for marking hazards if permitted by the Sheriff's office.)
- Big concern w/anything that limits our use on the lake. This is a very small representative percentage of lake property owners. (Please be sure you signed in for our headcount; we're trying to get the facts out to the community. Post meeting comment: An SLA Board member noted that there were > 10 people who did not want to sign in.)
- Female audience participant: One boat that she's seen is causing the problem.
- Rod: We are one of many lakes in the country; do we want to be the forefront of the action? (Chair Miller presented several options of how to address wake damage, including do nothing, education, and several different approaches regarding legislation including being proactive, waiting for others, or being a part of others' activities.)

- 1) The recommended area isn't big enough, but most are following the recommendation; 2) we don't want anything to limit our recreational use to motors that are 5 horse or less—need to work together as a community.
- Education is the biggest piece—ourselves/guests/renters.
- The new sign may not be purposeful. (Chair Miller noted that the sign was presented two years in a row at the SLA Annual Meeting and nobody expressed concern. Additionally and in response to Rod, he indicated that the sign was approved by WDFW. In essence, the sign should not be considered as a rule but a courtesy recommendation. There is no law or ordinance implied by the sign. It should be considered as educational information on possible wake boat wake impacts to lake residents and their property as well as a recommendation to stay in the middle and largest part of the lake.)
- Wake vs. wash sides[2] during wake making operations: Limiting direction to counterclockwise by law may be counter to having the direction of the larger wake created by wake boats not having the worst effect. Rod noted that direction was a law; Chair Miller reviewed the safe boating laws sign approved by the Sheriff Department and posted at the boat launch; the counterclockwise direction requirement is on the sign.
- Learned more here. The person encourages involvement in SLA and discussions with wake boat knowledge.
- Receiving the slides earlier would have been helpful. (The timeline for how this event came about is illustrated above. The slides were sent the day they were completed.)
- Damage by wake boats is deceptive; maintenance is being done all around the lake and can be caused by many factors. (Post meeting comment: See prior comment herein by the SLA regarding cumulative effects. The facts about wake boat wave energy being much higher and therefore potentially more destructive are clear.)

Other information has also been discussed, e.g. high-water discussion, forces of nature, beavers, etc. Chair Miller then took a poll (show of hands) regarding future actions (slide 56). Consensus of the attendees was to focus on Education only at this point. Several people, listed below, want to get personally involved (helping with tube clearing or with education efforts); their contact info will be provided to the appropriate SLA or lake level management people.

5. Closing Comments

Chair Miller thanked the attendees for coming and providing their input. He indicated the meeting was for the community and we have heard a broad spectrum of comments and input. He noted that (1) he showed factual damage reportedly caused by wake boats sent by owners in the community and is providing back to the community that evidence which was sent to him, (2) eye witnesses at the meeting specifically attributed damage to wake boats, and (3) that scientific, measured research data he found online was illustrated.

Education Volunteers:
Anne & Paul James

[2] Google AI search: "On a wake boat, the "wake side" refers to the side of the boat where the large, primary wave is created due to water displacement as the boat moves through the water, while the "wash side" is the area near the boat's stern where the propeller creates turbulent water, often appearing as a churning motion, known as "wash.""

Dave Stachofsky

Trisha Ressa

Lake Level Management Volunteers:
Chris Butler

Reese Mertens

6. Post Meeting Assessment of Success of the Meeting

On slide 3 of the presentation, Chair Miller presented the following:

- Goals for today:
    - To educate everybody with relevant facts
    - Provide the community the opportunity to be heard
        - Without harassment!!!
    - Ensure that the community feels that decisions made are theirs
    - Define a community-generated approach to address wake damage

In assessing those goals after the meeting, the SLA achieved all its desired goals to help the community. Future activities are anticipated.

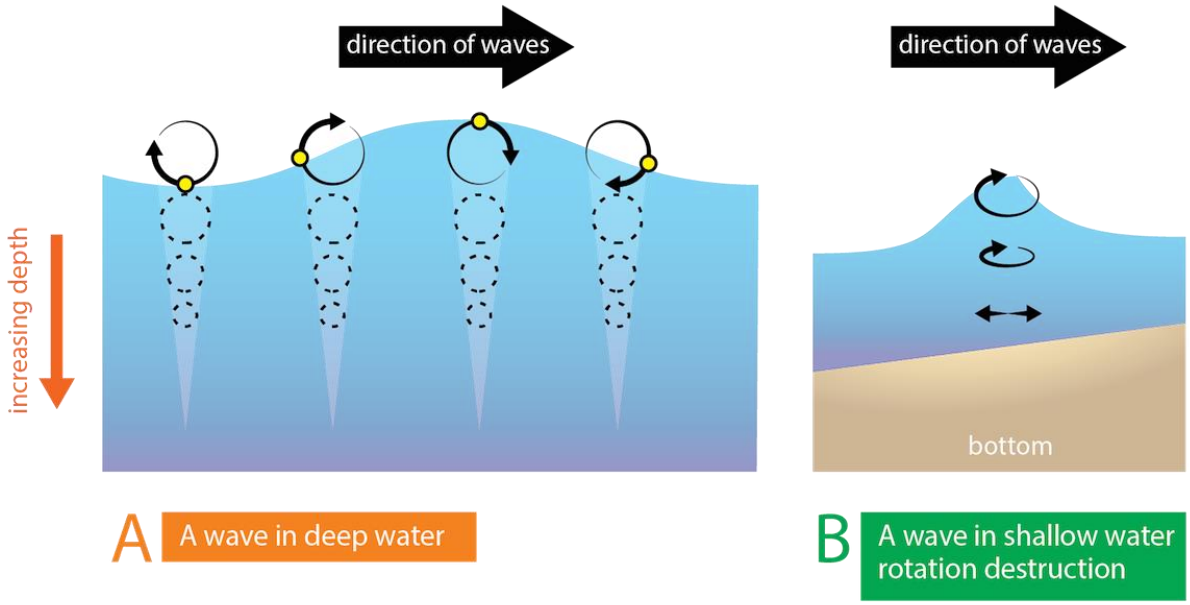
Addendum: Wave Propagation

At the meeting, there was a discussion of whether a particular study was relevant to Sacheen Lake or not. Grant replied that yes it was based on how waves propagate. If the water is deep enough for the size of the wave, the depth of the lake is essentially irrelevant; the wave will propagate without bottom interference. He indicated that waves (actually wave energy) propagate across the water in a sinusoidal nature (the surface height being an indicator of the energy in the waves) and that the motion under the water is circular. After the meeting, Grant researched his understanding and determined that his statement was factual in nature. Here are a few findings from that research for those interested in a better understanding of how waves work.

- The energy of the wave, not water particles, is what moves with a forward motion. "Waves are created by **energy passing through water**, causing it (the water particles) to move in a circular motion."
    - Reference: https://oceanservice.noaa.gov/facts/wavesinocean.html#:~:text=Waves%20are%20created%20by%20energy,move%20in%20a%20circular%20motion.&text=The%20ocean%20is%20never%20still,move%20in%20a%20circular%20motion.
- The particles of water affected by the wave energy move with a circular motion as the wave energy moves through the water. The closer the water particles are to the surface, the larger their circular motion is. The deeper water particles, but still less deep than the wave magnitude, travel in a smaller circular motion. The diagram below captures the idea and shows how the amount of water particle circular motion diminishes with depth.

- Reference: https://manoa.hawaii.edu/exploringourfluidearth/physical/waves/wave-energy-and-wave-changes-depth#:~:text=As%20the%20energy%20of%20a,equal%20to%20the%20wave%20height.
- Check out an animated illustration using this link: https://www.acs.psu.edu/drussell/demos/waves/wavemotion.html#:~:text=Water%20waves%20are%20an%20example,particles%20travel%20in%20clockwise%20circles. Look for the section titled: "Water Waves (Updated 2016)".

- "Energy (E) per square meter is proportional to the square of the height (H): $E \propto H^2$. In other words, if wave A is two times the height of wave B, then wave A has four times the energy per square meter of water surface as wave B."
  - Reference: This quote is also from the same link as the diagram below.



- There was discussion of wave dissipation with distance. The one study illustrated wave energy at distances of 100m, 200m, and 300m illustrating dissipation of turbulent kinetic energy. Waves dissipate mostly through surface interaction (wind) or bottom interaction (if the waves depth is similar to the lake depth). Therefore, on a calm day, large waves may travel for a long distance until the depth is ½ of the wave height (think of tsunamis from Japan reaching Washington's coast). That is, waves can easily travel across Sacheen Lake on a calm day. Other factors include other waves that either cancel or add to their energy as they propagate.
  - Reference: https://en.wikipedia.org/wiki/Wind-wave_dissipation#:~:text=In%20deep%20water%2C%20wave%20dissipation%20occurs%20by,wave%20breaking%20(see%20Types%20of%20wave%20breaking).
- The above figure also addresses part of the bottom turbulence discussed during the meeting. Grant indicated that the studies point out that bottom turbulence is caused by propellers pointed toward the bottom when bow-up-operations is sustained. As can also

be seen from Part B the above figure, ground turbulence occurs by the wave energy itself, especially as the wave approaches the shoreline. Considering the height of the waves in Sacheen, most of them appear to be between 0.25' to 1' (possibly larger). That implies that the wave energy moves "freely" through the water until it reaches an object (dock, person, boat, shoreline, etc.) or reaches shallow water (1/2 of the wave height).

Addendum: Turbulent Kinetic Energy (TKE) Comparisons

This addendum compares the distance required for the 1 bladder filled wake boat's TKE to dissipate to the exact same boat's TKE at 100m. The data from Figure 5 of the study was placed into an Excel worksheet and a linear projection of TKE used to estimate the required dissipation distance. The figure and its raw data are illustrated below.

	Turbulent Kinetic Energy		
Distance (m)	0 Bladder	1 Bladder	2 Bladder
100	26.5	52.5	41.5
150	24	38	32
200	18	31	26

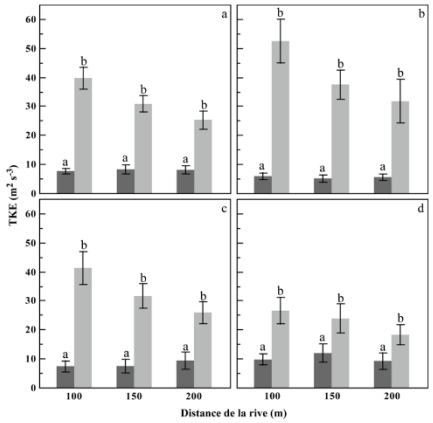
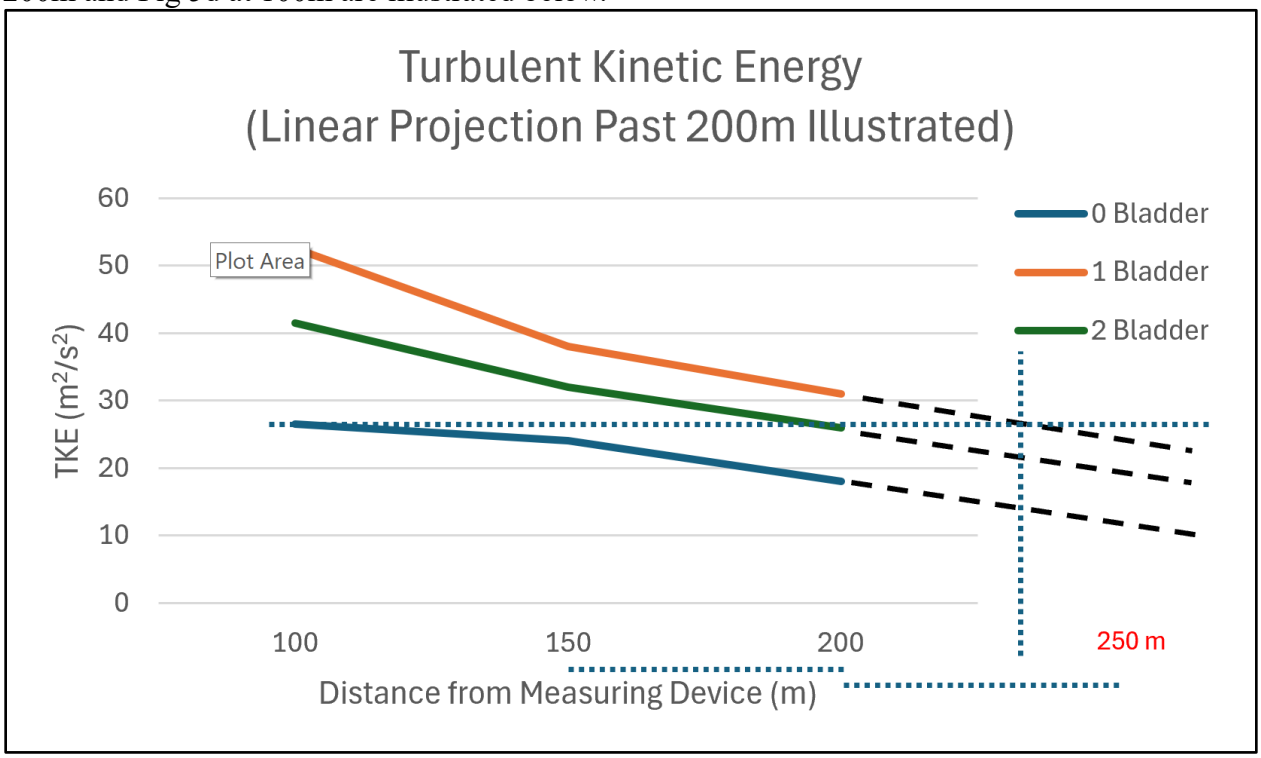


Figure 5. Energy (TKE) present in normal waves (dark gray) and that present in the waves following the passage of a wake boat 100, 150 and 200m from the shore, and the type of transition from boat (a: for all types of passage; b: 10 miles/h; c: 20 miles/h; d: 30miles/h).

The graph of the data with its linear extension and intersection point between Fig 5b at greater than 200m and Fig 5d at 100m are illustrated below.



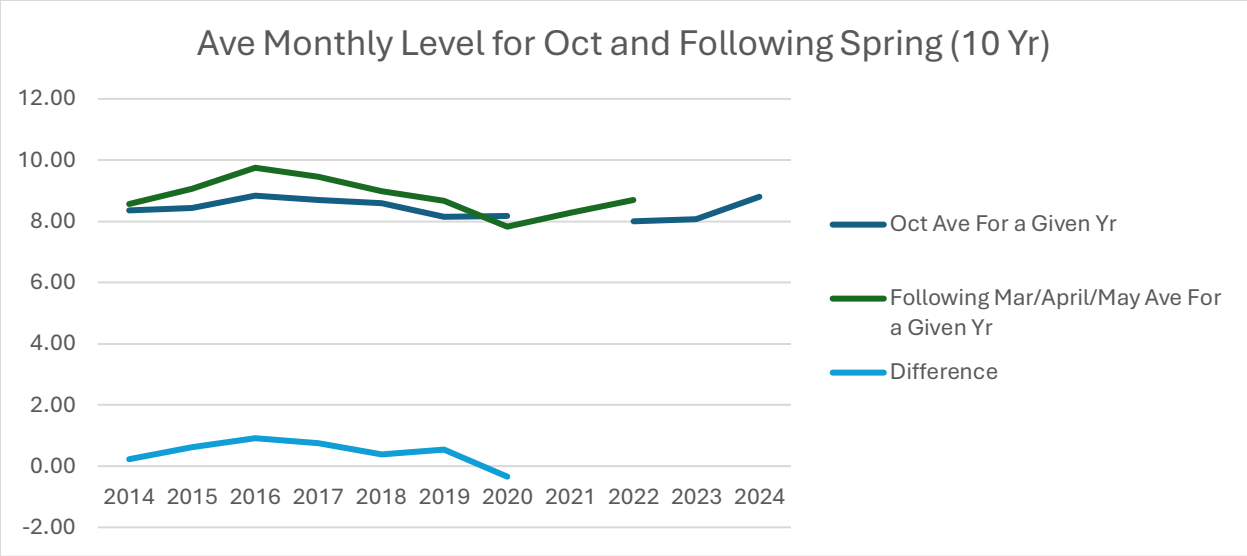
The projection illustrates that the 1 bladder boat TKE dissipates to the same TKE as the same boat with no bladder in use, measured at 100m, at a distance of approximately 230m. Using 1m = 3.281 ft, the additional distance of 130m = 426.5ft. This closely correlates to 500' the U of Minnesota study also referenced in the presentation.

Addendum: Lake Level Forecasting

At the wake damage meeting, there was also discussion of the current lake level and the possible implication for the spring 2025 level. Grant had previously emailed the community about the quick change of lake level in August and the impact of manpower issues on managing the lake level. Contrary to an audience member, these were and are facts, not excuses. It is noted that this year, the dams have been addressed on 22 August, 24 September, and 2 October so far. In addition, given that the beaver activity has been shown to rapidly undo what the volunteers do, the SLA asked the W&SD at the September W&SD monthly meeting to again attempt to obtain a beaver trapper. It was also noted by a W&SD representative, Rod Griggs, that they are working on getting beaver trapping done and that it was not done in 2023 due to a broken leg of their desired trapper.

A concern was expressed that given the current levels, that it will be particularly bad this year, i.e., the lake level will be high. Grant analyzed the correlation between average October height and average spring height of the following year. (Note: the lake level is not typically measured when it is frozen.) The analysis attempted to address if the October lake level is a good indicator of the spring level and in particular, does that correlation imply that the spring of 2025 will be a particularly bad year?

The following plot shows the average levels in October and Spring (Mar, Apr, or May, whichever data was available) over a 10-year period. It also illustrates the difference between the October and the spring measurements. This difference indicates that October seems to be a good indicator of April lake level and that difference is always less than 0.91 with an average difference of 0.47. The one data point that most resembles October 2024 is the Oct 2016 data point (to Spring 2017 comparison). Oct 2016 average lake level was 8.84 (the highest Oct average in the 10-year span analyzed). The Spring 2017 average level was 9.75. The Oct 2024 average level is 8.80. If weather has any predictability from year-to-year behavior (not very likely recently), our high October level could imply a bad spring. More likely, it implies busy beavers since there has been essentially no rain causing the higher level this fall.



Grant attempted to get a better understanding of how good of an indicator the 2016 to 2017 lake level behavior is for the 2024 to 2025 behavior possibility. And this assumes that beavers don't have an impact, which we already know is NOT the case. Grant found 10-year monthly rainfall data from NOAA. It is illustrated below for Newport (closest available data point to Sacheen Lake). Unfortunately, the "M" in the table appears to mean the data is "Missing". There is not enough historical data to reach any type of conclusion or even a projection of what might be statistically feasible.

- Reference: https://www.weatherworld.com/climate-averages/wa/sacheen+lake.html

NOWData - NOAA Online Weather Data Enlarge results Print

Monthly Total Precipitation for NEWPORT, WA

Click column heading to sort ascending, click again to sort descending.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2014	M	M	M	M	M	M	0.20	M	0.99	M	M	M	M
2015	M	M	M	M	M	1.50	1.51	0.45	M	M	M	M	M
2016	M	M	M	1.07	M	0.42	2.24	0.30	M	M	M	M	M
2017	M	M	M	M	M	M	0.08	0.03	1.21	2.41	M	M	M
2018	M	M	M	M	M	M	0.19	0.33	M	M	M	M	M
2019	M	M	M	M	M	M	M	0.16	1.34	M	M	M	M
2020	M	M	M	M	M	M	M	0.04	1.06	2.68	M	M	M
2021	M	1.25	M	0.17	0.59	M	M	M	M	M	M	M	M
2022	M	M	M	M	M	M	1.06	0.68	0.04	M	M	M	M
2023	M	M	M	3.13	M	M	0.06	M	1.51	0.19	M	M	M
2024	2.90	3.21	1.69	M	2.18	1.82	0.05	M	M	M	M	M	M
Mean	2.90	2.23	1.69	1.46	1.39	1.25	0.67	0.28	1.02	1.76	M	M	M
Max	2.90 2024	3.21 2024	1.69 2024	3.13 2023	2.18 2024	1.82 2024	2.24 2016	0.68 2022	1.51 2023	2.68 2020	M -	M -	M M
Min	2.90 2024	1.25 2021	1.69 2024	0.17 2021	0.59 2021	0.42 2016	0.05 2024	0.03 2017	0.04 2022	0.19 2023	M -	M -	M M

The SLA is working with the W&SD and the lead for the lake level management volunteers to do what we can to get the lake level down prior to the 2024/2025 lake freeze. An email requesting action by the trappers soon was sent to the W&SD on 10/9/24 and the lake level manager will organize an outing for next week (week of 13 Oct). He has been given the contact information for the new volunteers from the meeting. Since the Access Agreement requires "trained" volunteers, the SLA is also creating a standard training package for the lake level lead to provide to volunteers.