

Community Discussion About Wake Damage & Possible Action(s) to Take

Some slides in this presentation
assume some form of action will be
taken by / for the community to reduce /
eliminate damage or possible personal
injury from large, artificially created
wake

The ultimate solution path decision lies
in the hands of the community

Contrary to Someone's Thought ...

- From an email received by the SLA: ““The Association” will manipulate whatever it takes to get what they want.”
- My hope: You do not concur with this statement
 - By the time this presentation is done, at least wrt wake issues
- 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

Topics

The Problem

- SLA President's Introductory Slides
- Background
- Purpose
- Getting on the Same Page - The Law
- Summary of SLA Findings to Date
- Open Discussion of Damage to Property
- Open Discussion of Lake Use
- What Can You Do Now
- Comments by Deputy Kevin Olsen

Solution Space Discussion

- Discussion of Possible Courses of Action and the Impact of those Actions
- Discussion of Prioritization of Course of Actions
- Open Discussion of Timeline of Course of Actions
- Formation of Committee(s) to Move Actions Forward
- Support to Move Actions Forward
- Show of Hands
- Final Open Discussion
- Wrap Up

Why is the SLA Involved?

- SLA By-laws:
 - SLA is a benevolent, non-profit business registered with the WA Secretary of State
 - We are required to follow our By-laws
- Our By-laws Mission Statement:
 - ***The purpose of the Sacheen Lake Association is to advocate for the conservation as well as safe and environmentally sustainable use of Sacheen Lake and surrounding ecosystems, while promoting a strong sense of rural community.***
- Conservation, environmentally sustainable use:
 - Shorelines are being damaged by large wakes
 - Studies show that bottom sediment is disturbed by downward pointed props causing harmful release of phosphorus which causes algae growth which cuts off oxygen and sun
- Safe use of Sacheen:
 - Large wakes create an unsafe environment to property and people as is demonstrated by community responses to our survey and damage photos received this year
- Strong sense of rural community:
 - Our rural community is suffering the financial, time, and effort impacts of repairing damage caused by artificially created large wake rather than enjoying Sacheen Lake

How Does the SLA Address Problems?

- Problems can be identified by anybody in the community & communicated to the SLA Board
- SLA Board (President) includes the problem topic for a Board meeting
- Board discusses the problem
 - Does it fit within our Mission Statement and/or Goals?
 - If yes, then we have an obligation to seek a solution
 - Solution options may be presented or created via open discussion
- Board decides by vote whether to move forward or not
 - If no action desired / required, the topic is dropped
 - If action is desired / required, the next bullets indicate possible future actions
- A Committee may be formed or an individual assigned an Action Item for more study
- Study results are discussed at a future SLA Board meeting
- Another discussion on solution options and the path forward occurs
- Actions are taken to address the problem
- SLA Board typically emails the community to keep them informed
- Our preferred and usually our first action to solving a problem is to educate the community

The SLA Board is a collection of volunteers from the community, i.e., we represent a spectrum of your interests

SLA President's Interjections

- These slides were created with an assumption of moving forward to reduce and/or resolve the wake damage problem
- Based on observations from the community, wake boats appear to be the source of our current wave damage problems
 - Yes, recreational boats that do not make artificially large wake impact our property and shoreline, but not to the extent that artificially created large wakes do
 - Existing WA State law is designed to reduce their impact
 - Yes, people violate the 100' law, which increases the impact of a normal recreational boat
- WA laws were created before the impact of wake boats was known
 - Chapter 79A.60 RCW REGULATION OF RECREATIONAL VESSELS intent created in 1993
 - First wake boat built by Centurion Boats in 1995 (wakeboarding concept started earlier)
 - Earliest reference addressing wake research in "A Literature Review of Wake Boat Effects on Aquatic Habitat" is dated 2014 (See Table 1, therein)
- This problem is not unique to Sacheen, Pend Oreille County, or even WA State
- Ultimate approach to a solution to reduce / eliminate large, artificial wake is a community problem to tackle
 - The SLA Board will not attempt to solve this problem by itself

How The Meeting Will be Run

- ***During the meeting, we want everyone to have their input heard***
 - ***Since this topic affects the pocketbook and how people recreate, it will likely involve strong emotions***
 - ***Please temper your emotions with respect for others***
- ***Fire Station use policy REQUIRES a civil discussion***
 - Absence of civility will invoke Robert's Rules of Order: i.e., you may only speak when you are selected by the Chair as the next talker
- When you do speak, please introduce yourself prior to speaking
 - Your first name will suffice
- Any questions regarding how the meeting will be executed?

Please Respect Your Neighbors' Opinion

Since we need community input, we graciously ask that any opinions expressed herein not be taken as a judgment against your neighbor

Humor (attempt): We CAN talk about politics, religion, and wake boats with civility, if we put our minds to it!!!

Background

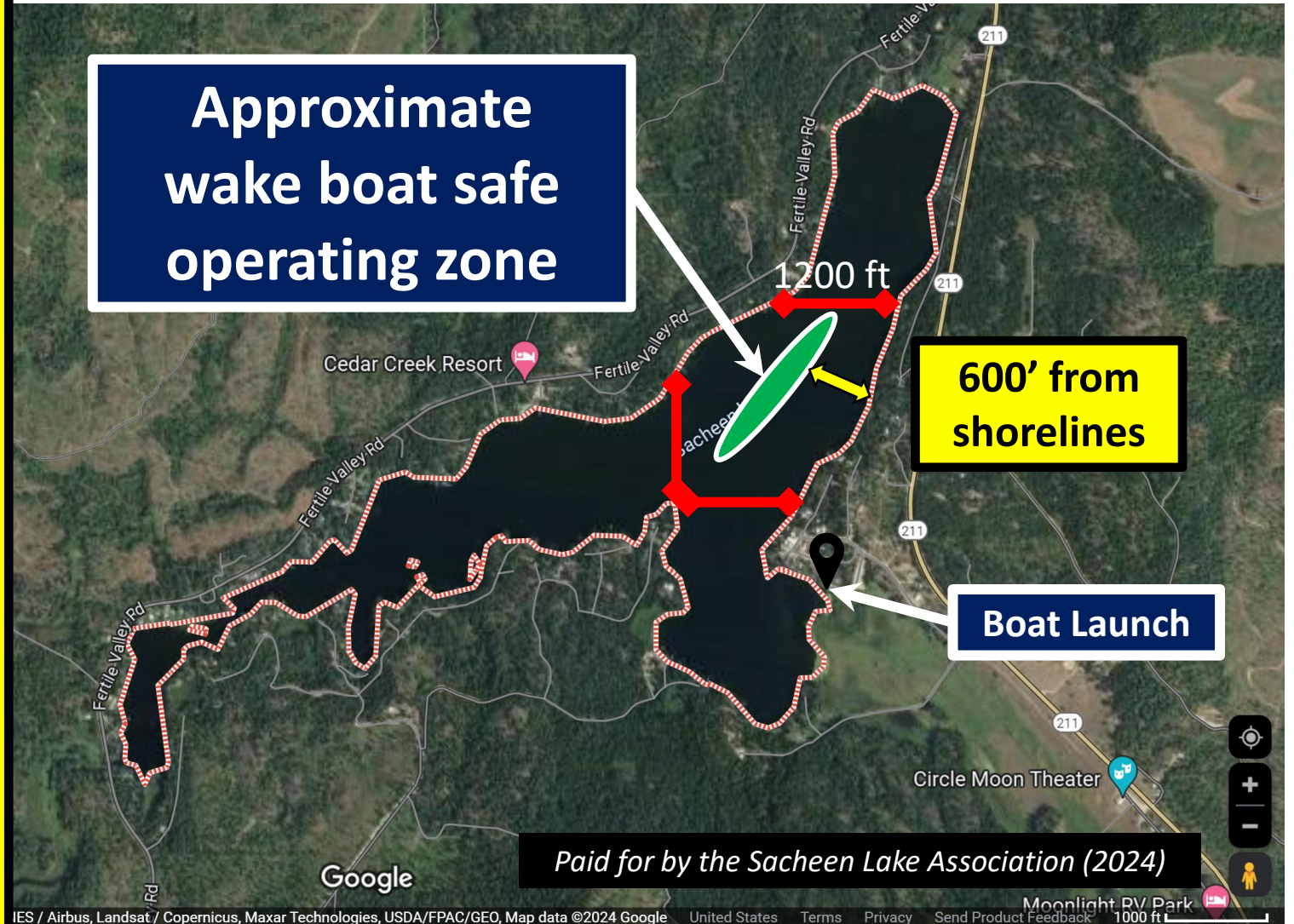
- The SLA has been monitoring damage caused by wake via:
 - Emails received and verbal complaints by residents
 - Our own observations of wake impacts to us and the source of the wake
- Due to community complaints, in fall 2022 the SLA researched the impact of wake boats
 - Technical study by U. of Minnesota College of Science & Engineering
 - End result is the sign we installed at the boat launch with approval from WDFW
 - Supported by \$200 donation from a local resident
- 2023 SLA survey on wave damage to property and personal injury
 - Prompted by complaints
 - Results provided herein
- 2024 SLA requested photos of this year's damage due to more complaints
 - Photos provided herein
- Bottom line: Sacheen Lake is too small in a vast majority of the lake to allow mitigation of the impact of large, artificial, powerful waves from wake boats
 - Damage caused by large wake has been extensive and costly
 - Fortunately, no personal injury has yet occurred

Sacheen Lake Recommended Wake Boat Operating Zone

Attention Wake Boat Operators

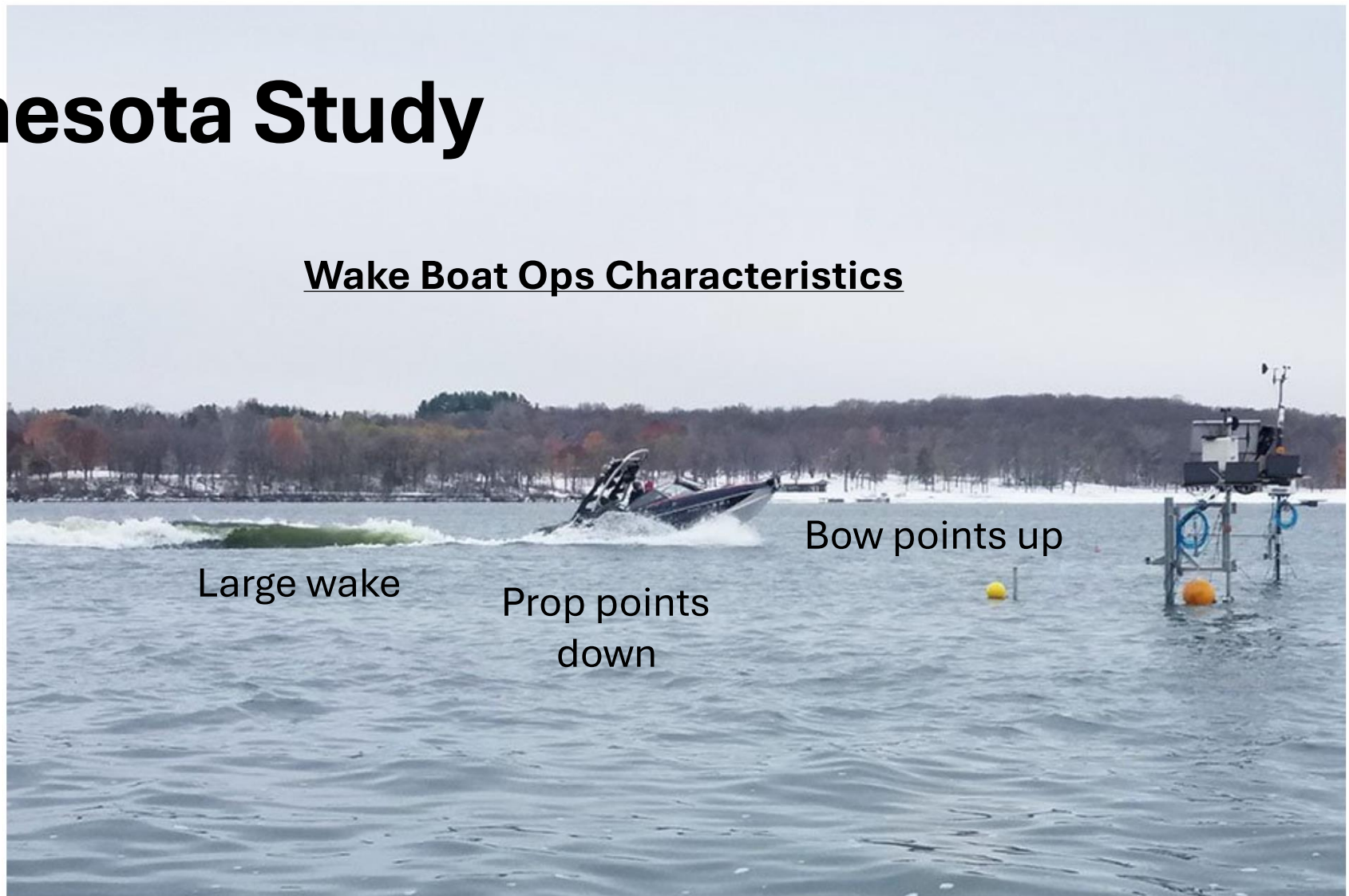
WA State law requires a 100' no wake zone from shorelines, docks, etc. Wake boat wakes are extremely large and more powerful in force as compared to wakes from other recreational boats. This additional size and power can cause severe damage to property, the shoreline and people. Please be considerate of our lake's property owners and users and keep wake boating confined to the largest area of the lake. An example area is illustrated to the right based on a wake boat impact study by the U. of Minnesota conducted in fall of 2020.

<https://cse.umn.edu/college/news/umn-researchers-study-waves-created-recreational-boats>



U. of Minnesota Study

- Photo illustrates measurement equipment of the study
- Caption discusses what they did
- <https://cse.umn.edu/college/news/umn-researchers-study-waves-created-recreational-boats>



Researchers from the University of Minnesota St. Anthony Falls Laboratory carefully measured the maximum height, total energy, and maximum power of the waves from wakes produced by four recreational boats—two wakesurf boats and two more typical recreational boats. They also measured how the wake waves changed as they moved away from the boats and toward shore. Photo credit: Healthy Waters Initiative, University of Minnesota

Turbulent Kinetic Energy (TKE) Data

- “Figure 5 shows the results of TKE according to the distance between the passage of the vessel and the shore (100m, 150m, 200m) and the type of transition, or TKE measures for all types of combined passage (Figure 5a), those for the wake surf (10 miles/h, Figure 5b), those for the wakeboard (20 miles/h; Figure 5c) and those for the boat trip (30miles/h; Figure 5d).
- Our results show that for each type of ship passage, regardless of the distance, there was still a significant increase in the amount of energy present in the train of a wake boat wave (Figure 5) which reached the shore (pale gray), compared to the normal conditions (dark gray).”
- “The turbulent kinetic energy (TKE "turbulent kinetic energy") contained in a wave (created by a boat or otherwise) can be calculated by knowing the speed dimension as it passes, according to the equation:

$$TKE = \frac{1}{2}(\overline{x^2} + \overline{y^2} + \overline{z^2}),$$

where x, y and z are the speeds of the micro-turbulence measured in three dimensions (Wist 2004).”

- **Reference:** Project Evaluation of the Impact of Waves Created by Wake Boats on the Shores of the Lakes Memphremagog and Lovering, by Sara Mercier-Blais and Yves Prairie June 2014

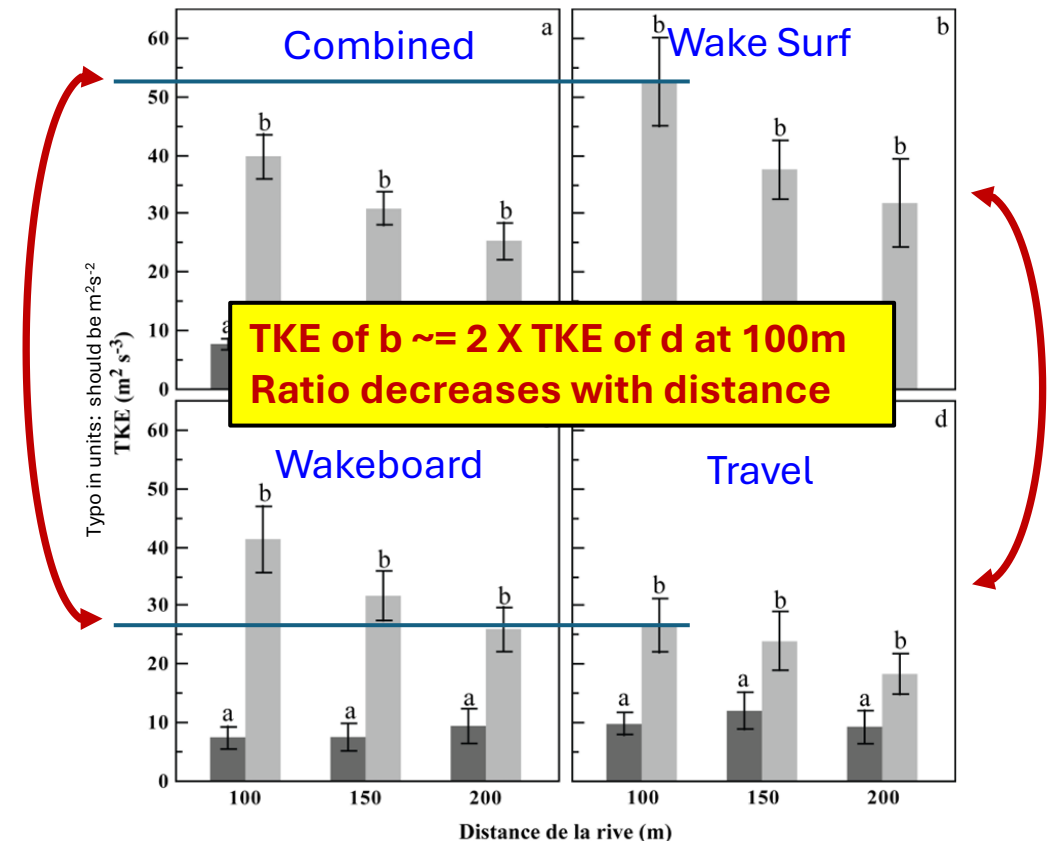


Figure 5. Energy (TKE) present in normal waves (dark gray) and that present in the waves following the passage of a wake boat 100, 150 and 200m from the shore, and the type of transition from boat (a: for all types of passage; b: 10 miles/h; c: 20 miles/h; d: 30miles/h).

- a. Normal Conditions: No passing boat (dark bars)
- b. Wake Surf: Ballast on one side only filled
- c. Wakeboard: Both ballast tanks filled
- d. Travel: Empty ballast tanks

Shoreline Slope Impact of Wave Energy

- Two shoreline slope values tested
- Slope did not have a significant impact on TKE of wake boat wake
 - Steeper slope wave had larger TKE
- “When increased energy from the wave that reaches the bank (with the passage of a wake boat), the acute slopes receive a significantly higher energy (Figure 11b). Indeed, when the slope of the coast is acute, the wave meets the bottom coastal area slower and so the wave energy dissipates more slowly. The energy that reaches the shore is then much higher, leading to a greater impact on the resuspension of sediments and possibly on the bank erosion.”
- Ref: same as prior slide

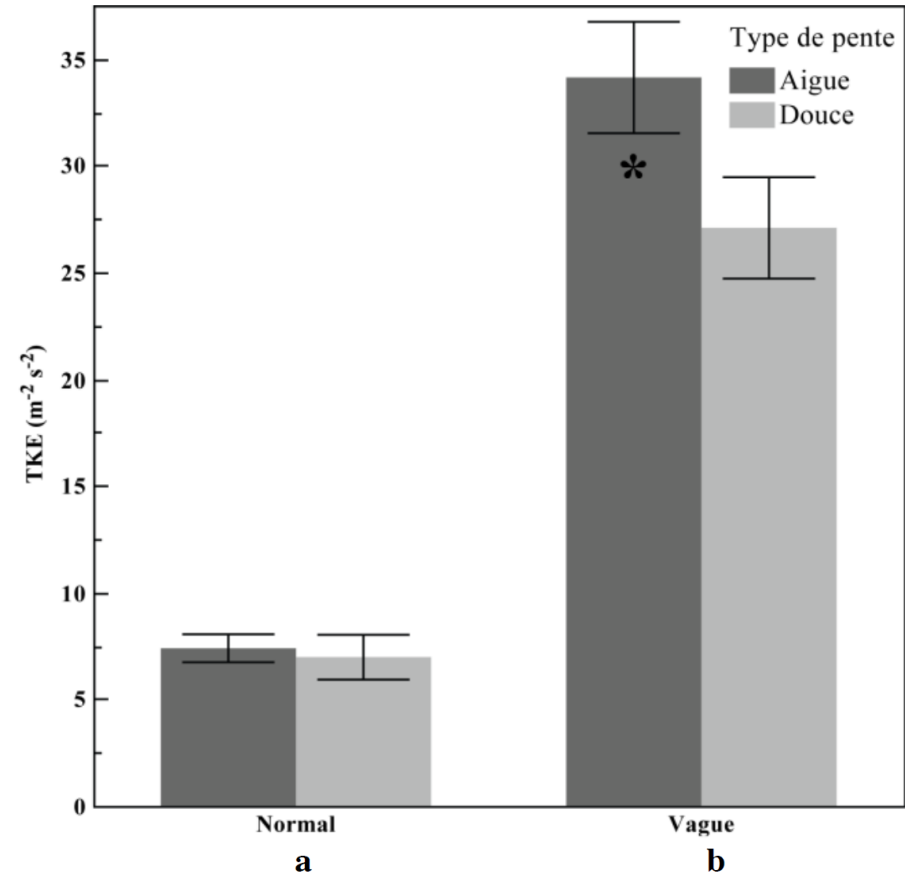


Figure 11. Energy (TKE) that reached the shore between sites with sloping coastline of acute (dark gray), coastal slope (pale gray), for normal waves (a) and that from a wake boat (b).

Note: The asterisk (*) represents a significant increase (p < 0.05).

Purpose of Meeting

- Collect ideas from residents about what can be done to stop wake damage to our property and possible injury to people
- Prioritize the list of proposed actions to take
- Propose course(s) of action based on the impact of ideas discussed
 - Timelines of the change to reduce / eliminate damage
 - Amount of overall reduction of the impact
 - Least amount of impact to being able to enjoy Sacheen Lake
- Discuss what group can take the actions
- Future effort will be required to have an impact!!!

The Law – WA Safe Boating Summary

- Sacheen Lake has a 35 mph max speed
- Vessels cannot create wake within 100' of shoreline, docks, swimmers, stationary vessels, etc.
- Negligent operation includes consideration of more than just not running into something or someone
 - Size of the lake or body of water
 - Effects of vessel wake
 - May not unduly or unreasonably endanger life, limb, property
- Water skiing* operation may NOT endanger a person or property
- Boaters are responsible for damage caused to persons or property
- Boaters must have a Boater Education Card (exceptions apply)
- If you rent, charter, or lease a boat, you must first review with the person to operate the vessel, all the information contained in the motor vessel safety operating and equipment checklist

* How literal is “water skiing” interpreted in the law? Unknown. Laws written before wake boats invented.

Sacheen Lake Safe Boating Laws

Safety Highlights from Pend Oreille County Boating Ordinance
ALL OPERATORS BORN AFTER JAN. 1, 1955 MUST BE STATE CERTIFIED

SACHEEN SPEED LIMIT 35 MPH OR 30 KNOTS

- **35 MPH** 1/2 hour before sunrise until 1/2 hour after sunset
- **NO WAKE SPEED** (5 MPH) from 1/2 hour after sunset until 1/2 hour before sunrise
- Poor weather conditions & boating congestion require lower speeds

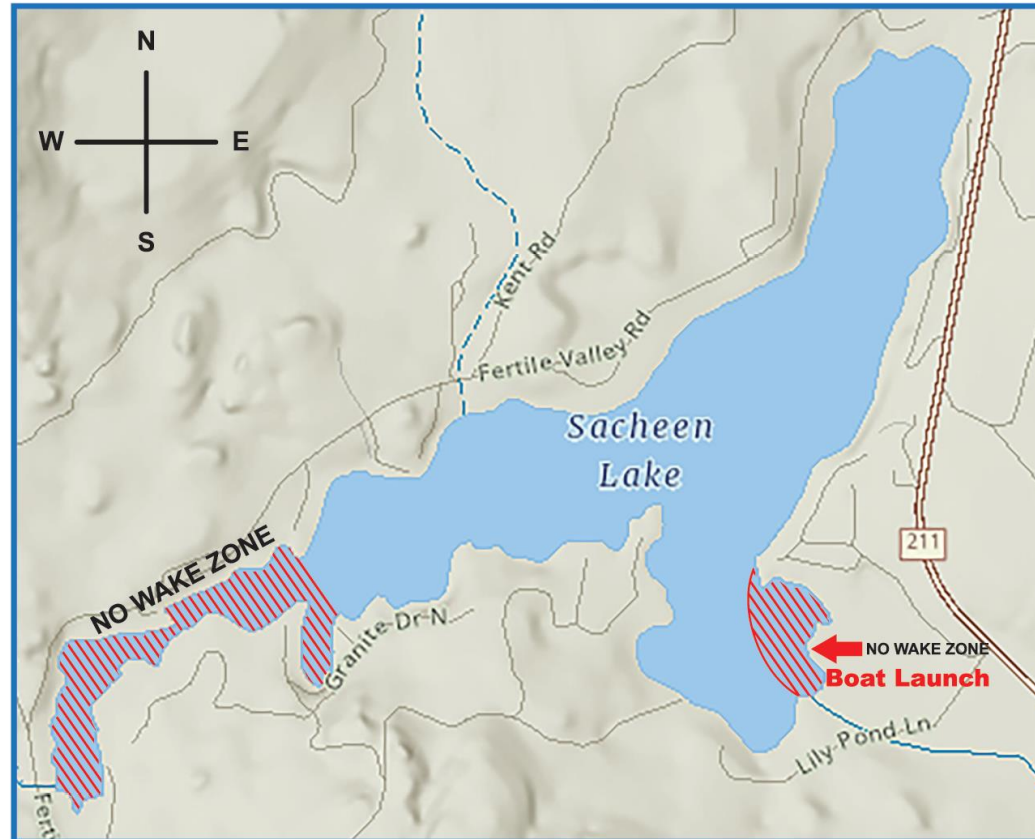
NO WAKE ZONES

- Within 100 Feet of docks, shoreline, other boats
- Within 100 Feet of any swimmers (or swimming areas)
- Restricted/posted speed zones (shaded area on map & boat launch)

WATERSPORTS ACTIVITIES

- Must travel in a counter-clockwise direction
- Allowed 1/2 hour before sunrise until 1/2 hour after sunset
- **COMPETENT** observer/spotter and orange flag required when towing
- **PFD** required on all persons being towed

Sign courtesy of Sacheen Lake Association
www.sacheenlake.com



Fines up to \$1000

Both boat operators & boat owner can be fined

SAFETY EQUIPMENT

- Personal Flotation Device (PFD) required on board for each person.
- **PFD** must be worn by anyone 12 and under
- Running lights required from sunset to sunrise
- All other WAC/RCW required equipment

PERSONAL WATERCRAFT

- Operator **MUST** be at least 14 years of age
- **PFD** required for operator/passenger/spotter
- **Competent** observer/spotter and orange flag required when towing
- Vessel shall be capable of safely transporting 3 people when towing
- Operator must abide by all boating regulations
- **MAY ONLY OPERATE BETWEEN SUNRISE AND SUNSET**

Sheriff - Emergency 911

Non-emergency 509-447-3151

WA State 100' No Wake Zone

- What does 100' look like?
- Analogy: If a car is 15' long, 100' distance implies you must stay about 7 car lengths away
 - A lot of drivers are within 20' to 60' of your rear bumper
 - Tailgaters may be 15' or less



14" of ground-spike showing



.290 Speed Restrictions:

(01) No person shall operate a vessel, except for vessels exempted by watercraft testing or racing permit, at a speed greater than:

(a) 55 MPH on the Pend Oreille River

1. Whenever the elevation, at the Cusick gaging station, is at or exceeds 2041 there shall be in effect a No Wake Speed Limit.

(b) 45 MPH on any lake over 200 water acres in P.O. County, unless otherwise posted at a lesser speed.

(c) 35 MPH on Sacheen Lake, unless otherwise posted at a greater/lesser speed.

(d) NO WAKE on any lake of 200 acres or less

(e) Under certain conditions the above-posted speed limits may not be safe/ practical and may be considered unsafe/negligent.

(02) A vessel shall not exceed "wake speed" as defined in .101 (03) when within 100 feet of any, dock, ski dock, pier, stationary vessel, trolling vessel, shoreline, swimmer, float, piling or scuba dive flag.

The Law – POC Ordinance O-2001-01-Boating-Safety

You may ski away from a dock to start, but not be dropped off at the dock. When you leave a dock, the 75' ski rope, boat length, and planing transition put you 100' away from shore ASSUMING your travel is perpendicular to shore. When a person is dropped off at a dock, they violate the 100' WA law and POC ordinance.

The Law – Negligent Operation

- [RCW 79A.60.030](#)
- **Operation of vessel in a negligent manner—Penalty.**
 - A person shall not operate a vessel in a negligent manner. For the purposes of this section, to "operate in a negligent manner" means operating a vessel in disregard of careful and prudent operation, or in disregard of careful and prudent rates of speed that are no greater than is reasonable and proper under the conditions existing at the point of operation, taking into account the amount and character of traffic, size of the lake or body of water, freedom from obstruction to view ahead, effects of vessel wake, and so as not to unduly or unreasonably endanger life, limb, property or other rights of any person entitled to the use of such waters. Except as provided in [RCW 79A.60.020](#), a violation of this section is an infraction under chapter [7.84](#) RCW.
- [[2000 c 11 s 93](#); [1993 c 244 s 7](#); [1933 c 72 s 2](#); RRS s 9851-2. Formerly [RCW 88.12.020](#).]
- **NOTES:**
 - **Intent—1993 c 244:** See note following [RCW 79A.60.010](#).

The Law – Endangering While Water Skiing

- [RCW 79A.60.170](#)
- **Water skiing safety—Requirements.**
 - (1) The purpose of this section is to promote safety in water skiing on the waters of Washington state, provide a means of ensuring safe water skiing and promote the enjoyment of water skiing.
 - ...
 - (6) No person engaged in water skiing either as operator, observer, or skier, shall conduct himself or herself in a reckless manner that willfully or wantonly endangers, or is likely to endanger, any person or property. A violation of this subsection is a misdemeanor as provided under [RCW 9.92.030](#).
- [[2000 c 11 s 99](#); [1993 c 244 s 15](#); [1990 c 231 s 1](#); [1989 c 241 s 1](#). Formerly RCW [88.12.125](#), [88.12.080](#), and [88.12.070](#).]
- **NOTES:**
 - **Intent—1993 c 244:** See note following RCW [79A.60.010](#).
 - **Effective date—1990 c 231:** "This act shall take effect July 1, 1990." [[1990 c 231 s 4](#).]
 - **Severability—1990 c 231:** "If any provision of this act or its application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to other persons or circumstances is not affected." [[1990 c 231 s 5](#).]

The Law – Damage Liability

- RCW [79A.60.280](#)
- **Liability for excessive or negligent use.**
 - In case the taker-up shall use the vessel, more than is necessary to put it into a place of safety, he or she shall be liable to the owner for such use, and for all damage; and in case it shall suffer injury from his or her neglect to take suitable care of it, he or she shall be liable to the owner for all damage.
- [[1993 c 244 s 24](#); Code 1881 s 3247, part; [1854 p 387 s 6](#); RRS s 9896, part. FORMER PART OF SECTION: Code 1881 s 3247, part. Now codified as RCW [88.20.070](#). Formerly RCW [88.12.222](#), [88.12.210](#), and [88.20.060](#).]
- **NOTES:**
 - **Intent—1993 c 244:** See note following RCW [79A.60.010](#).

The Law – Boater Education ID

- [RCW 79A.60.640](#)
- **Requirements to operate motor-driven boats/vessels—Exemptions—Penalty.**
 - ...
 - (4) Except as provided in subsection (3)(a) through (i) of this section, a boater must carry a boater education card while operating a vessel and is required to present the boater education card, or alternative license as provided in subsection (3)(a) and (b) of this section, to a law enforcement officer upon request.
 - (5) Failure to possess a boater education card required by this section is an infraction under chapter [7.84](#) RCW. The penalty shall be waived if the boater provides proof to the court within sixty days that he or she has received a boater education card.
 - (6) No person shall permit the rental, charter, or lease of a motor-driven boat or vessel with an engine power of fifteen horsepower or greater to a person without first reviewing with that person, and all other persons who may be permitted by the person to operate the vessel, all the information contained in the motor vessel safety operating and equipment checklist.
- [[2005 c 392 s 4.](#)]
- **NOTES:**
 - **Intent—2005 c 392:** See note following RCW [79A.60.630](#).

Summary of SLA Findings To Date

- Activities taken by the SLA to date – details in following slides
 - SLA Research on wake boat wake impact. See prior boat launch sign slide
 - See links at the end of the presentation
 - Unfortunately, most of the links do not address the impact to docks and property but the data is there: **“Wake boats can produce waves with 1.7–17 times the energy of other comparable-sized powerboats ...”***
 - SLA Spring 2023 community survey – bottom line: damage to property and accidents to people was a result of wake boats
 - Slides from 2023 Annual Meeting follow
 - SLA research on current / proposed legislation
 - Summary of a model for creating an ordinance provided herein
 - SLA query to community for photos of 2024 damage
 - Dock damage continues

* Michigan DNR survey “A Literature Review of Wake Boat Effects on Aquatic Habitat”, July 2023

2023 Annual Meeting - Shoreline Erosion Survey

- SLA Board sent seven (7) questions to the community to determine the extent of property damage and personal injury due to waves
 - 1. What property damage or personal injury have you experienced due to excessive wave action?
 - 2. To what direction does your property on the lake face? Please answer with one (or more) of the following: N, NE, E, SE, S, SW, W, NW.
 - 3. In what general area do you live? You may respond with a development area (e.g., Eastshore, West End) or a range of addresses (e.g., between 7500 and 8000 on FVR).
 - 4. To what do you attribute the source of the excessive wave action? Do you have any proof and if so, please describe it.
 - 5. If damage, what have you done, if anything, to mitigate the damage? If injured, did you require medical care and to what extent?
 - 6. How much did it cost you to mitigate the damage / injury?
 - 7. Have you taken any preemptive steps to protect your property against further wave action damage? If so, what did you do and how much did it cost?
 - 8. Please indicate: (a) if we may use your name, and (b) if we may use specific information provided to answer questions 1 to 7 above.

2023 Annual Meeting - Shoreline Erosion Survey Response

- As of 5/29/23, 19 community members responded to the survey, one member responded to the presence of the survey
- Of the 19 responses
 - 10 responded with damage to their property (one or more of): dock, pilings, anchor chains, broken ropes, landings, dock sections came apart, tie downs ripped from the dock, retaining /sea walls, broken items on the dock, reduced/eliminated ability to moor boat to dock, lost trees on shoreline
 - One person replied a cost of \$26,000 for dock and anchor replacement and a rock breakwater
 - Many did repairs on their own
 - Some have repairs to do still with costs expected to be \$20,000 or more
 - 11 responded with shoreline erosion. One noted trees lost due to erosion
 - One person reported 6' of loss and a cost of \$18,000 to stabilize the shoreline (a neighbor paid the same for repairs)

2023 Annual Meeting - Shoreline Erosion Survey Response

- As of 5/29/23, 19 community members responded to the survey, one member responded to the presence of the survey
- Of the 19 responses (cont)
 - 2 responded with people being knocked off their feet on their dock (multiple times), being thrown into the water. No injuries reported!
 - Almost falling (1)
 - 4 responded with no damage or injury
 - 1 of these indicated they do not tie their boats to the dock anymore when wake boats are running for fear of damage
 - Multiple people commented that water activities are curtailed by wake boat activity due to safety concerns (e.g., kids swimming/floating next to a dock)
 - Fear of injury to their kids/grandkids, or kids afraid to be on the dock when wake boats are present

“Our desire is for the lake to be enjoyed by all, including tubing, skiing, wakeboarding, etc. As we have not collected data on the exact cause of the waves (other than boats) we are not in a position to identify a particular size or type of boat creating the issue. However, we do believe we do have a legitimate concern about safety related to the height and overall force of waves at certain times coming into our swim area. ”

2023 Annual Meeting - Shoreline Erosion Survey Response

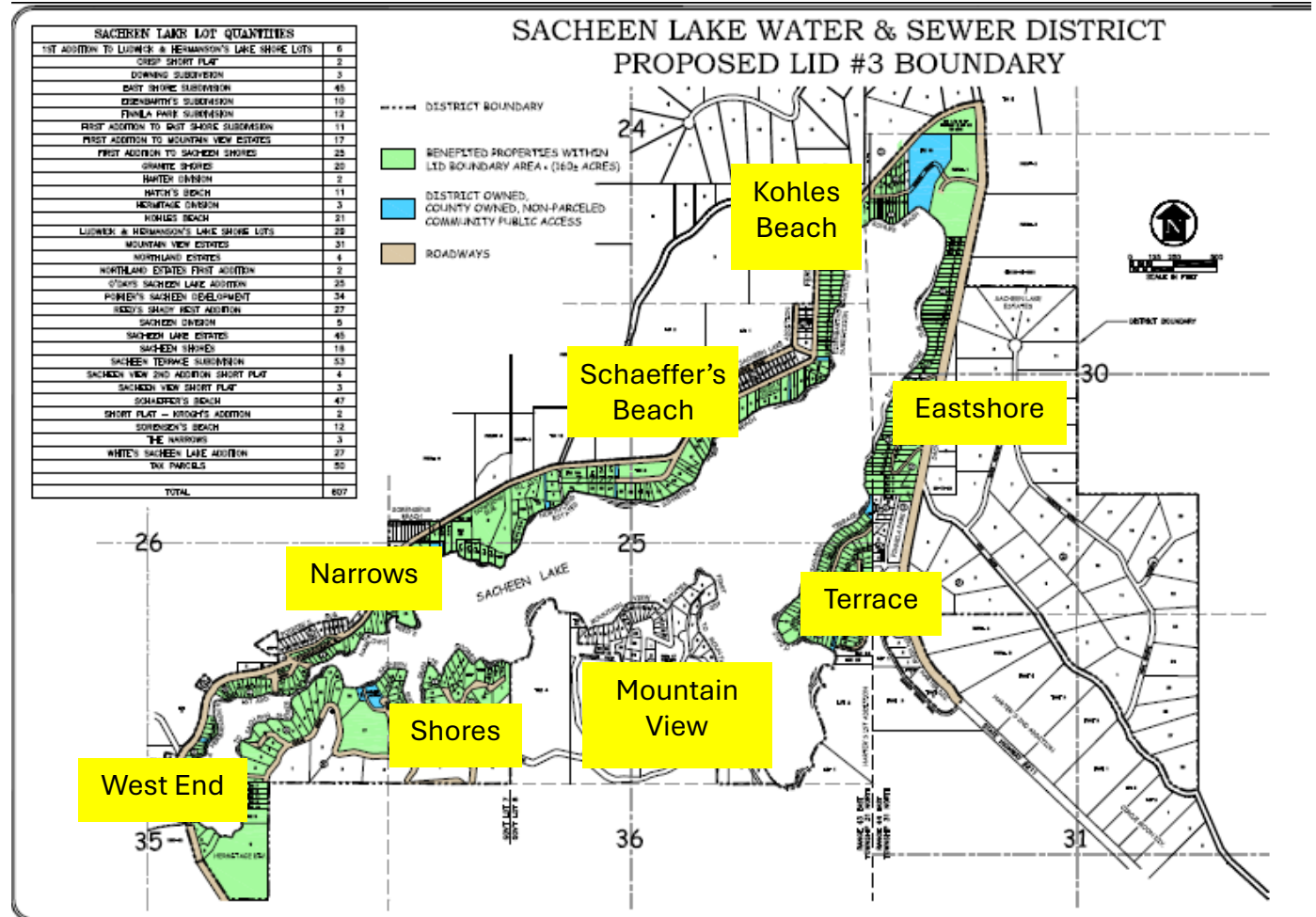
- Of the 19 responses, areas affected included

- Sacheen Terrace, Eastshore, Schaeffer's Beach, Cedar Creek, Shady Rest, Narrows, Mt View Estates

- Eastshore and Schaeffer's Beach are predominant

- Except for the Narrows, these are areas where 35 mph is allowed on the lake

- Speed on Sacheen Lake was set by the County
- No wake zones are set by the State and County Sheriff's office



2023 Annual Meeting - Shoreline Erosion Survey Results

- Survey results:
 - 1. Property damage or personal injury: See prior slide
 - 2. Property direction: Damage occurred in all shoreline facing directions and throughout most of the lake. Implies that damage is not caused by natural prevailing winds
 - 3. Area: Damage is greatest on the 35 mph sections of the lake. One reported damage in the Narrows (no wake zone)
 - 4. Cause: wake/surf boat wake is cited as the primary cause (14 of 19 inputs)
 - 5. Repairs: Dock repairs/replaced, replaced anchor chain/rope, breakwater built, beefed up dock landing, replaced dock to landing attachment, repositioned dock anchor, replaced anchor chain. Still need to repair: 3
 - 6. Cost ranges from hundreds to multiple 10's of thousands of dollars. One cited \$450 for POC permit. Total costs of all repairs reported & projected repairs is about \$83K and does not include 2 locations that have not yet done repair work
 - 7. Preemptive steps: don't use their dock or don't use it or the shoreline when large waves present, placed or already have rocks or logs as shoreline breaks. About 1/2 took no action; at least 2 investigating installing retaining walls

Wake Laws – Google AI Search Result Quotes

- “Vermont: Has some of the strictest wake boat rules in the country, limiting wake sports to designated areas. These areas are at least 500 feet from shore, 200 feet wide, and more than 20 feet deep. Vermont also requires boats to be decontaminated when moving between waters to prevent the spread of invasive species.”
- “South Carolina: Requires wake sports to be at least 200 feet away from docks, swimmers, and other anchored craft.”
- “Oregon: Banned wake surfing in some sections of the Willamette River.”
- “Michigan: Has introduced legislation that would prohibit wake boats from being used in waters less than 20 feet deep or within 500 feet of shore.”
- “Wisconsin: Requires motorized boats to stay at least 100 feet from shore when creating a wake.” See next slide regarding Wisconsin

Activities by “Lakes at Stake Wisconsin”

- SLA communicated with Lakes at Stake Wisconsin regarding their activities to create laws restricting wake boat operations
- Quote from their email to the SLA
 - “On a Statewide level we are working for a requirement that enhanced wake activities be at least 700 feet from shore and in water depths of at least 30 feet. On the water depth, we are going to adjust that number accordingly, once the "Minnesota Phase II" study comes out. That study will be published any day now, and was designed to understand how deep wake surf prop wash will impact a lake bottom.
 - In Wisconsin we have the ability for local towns to actually prohibit enhanced wake sports via local ordinance. Many are now doing so. They are passing an ordinance like the one attached. Where we think this template works well is that it prohibits use of ballast, prohibits bow up specifically for the purpose of making a large wake, and finally, states that this ordinance does not apply to traditional water sports. Our DNR has approved this template.”

SLA Review of Lakes at Stake Wisconsin Template

- Written in the form of applying to a Town wherein the Town has the authority to enact ordinances covering waters in its jurisdiction
- Whereas section
 - Identifies jurisdictional precedent
 - Describes possible damage from artificially enhanced wakes
 - Identified species introduction and spread from ballast systems
 - States possible damage to shoreline, lake bottom, moored boats, and shoreline structures such as docks
 - States possible endangerment to swimmers, anglers, and other watercraft
 - Identifies reduced operator visibility due to raised bow by ballast and wake enhancing fins
 - Addresses DNR and public comment review periods

SLA Review of Lakes at Stake Wisconsin Template

- Section 1: Applicability and Enforcement
 - Describes the scope of waters to which the ordinance applies, and who enforces the ordinance
- Section 2: Certain Artificial Wake Enhancement Prohibited
 - (1) Prohibited Equipment: ballast tanks, ballast bags, fins
 - (2) Prohibited Operations: no artificial bow-high manner operations, including continued planing transition speed operations
 - (3) Certain Operations Excluded: Operations that do not include above prohibited equipment and operations such as water skiing, tubing, wake boarding with a tow rope, transition operations to empty bilge water, transition operations during acceleration into planing operations

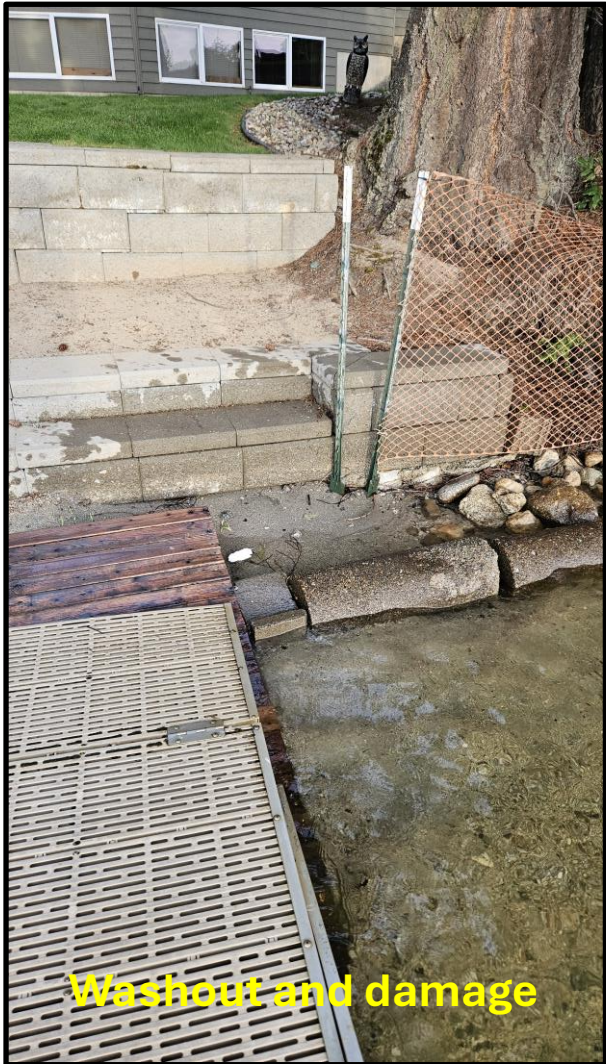
SLA Review of Lakes at Stake Wisconsin Template

- Section 3: Penalty
 - Has reference to existing Wisconsin boating penalties
 - \$500 for first offense, \$1000 for 2nd and subsequent within one year
 - Addresses other Wisconsin Circuit Court fees, forfeiture, etc.
- Section 4: Severability
 - Standard text that the remainder of the ordinance is not affected if other portions deemed invalid
- Section 5: Effective date
- Signature section

2024 Damage Reports

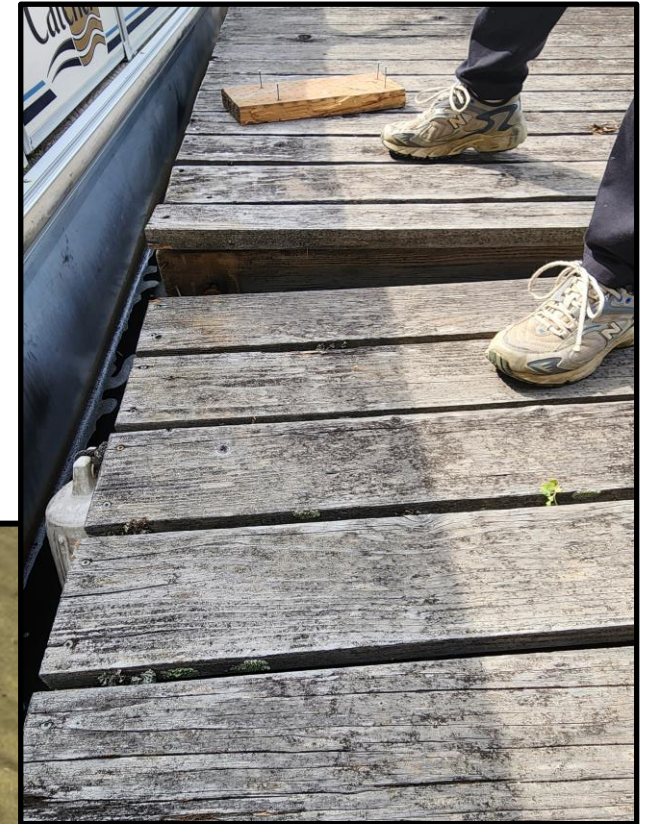
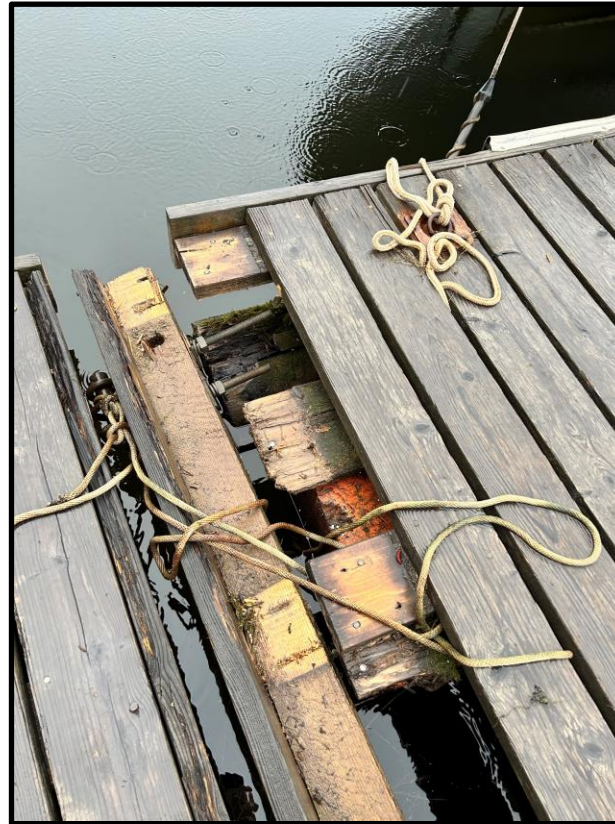
- Residents have independently been sending emails of damage
 - Broken docks
 - Moved docks
- SLA asked for photos of damage – see next slides

Shoreline Damage – Retaining wall, Dock landing, actual shoreline



Dock Damage

- Wave action has been pushing on docks and breaking anchor chains, moving docks, and breaking dock pieces apart.
- Damage: “We had to disconnect our floating dock sections and upgrade the hardware pinning them together. Cost was \$1,012. We did this work ourselves, otherwise it would have been more.”
- Dock movement e.g.: I tied a corner of my dock to a tree so the ramp would not fall off the landing and get bent.



Dock Damage

July 2024 damage



Non-attributed Recent Email Quotes on Large Wakes

- 8/8/24: “What is done about the large waves that are created by the wake boats, and people not allowed to enjoy their own dock and the concern of children swimming when the waves come in. It is powerful enough to throw you against the dock or knock children down or off their floating devices, even when they are in the bigger part of the lake ...”
- 8/12/24: Based on a photo of a crumpled ramp - “... their approach really took a beating. My approach broke a month ago and yesterday a ski boat was washed off its boat lift and ended up on a rocky beach”
- 8/26/24: “We live on Eastshore, directly across from what people say is the biggest part of the lake. The wake boats go back and forth, and back and forth, sometimes with a jet ski jumping the waves it's making. Pretty soon the waves breaking on our shoreline are huge. As a result, we can't let our toddler grandson play on our beach when the wake boats are out because the waves will knock him down. Besides it being dangerous, it's sadly made him afraid to play there. We completely disagree with those who have said that as long as they stay in the middle of the biggest part of the lake they won't affect the shoreline. Our lake is too small for wake boats. Period.”
- 9/3/24: “What a frustrating weekend at the lake due to HUGE waves created by the "Wake Setter" black surf boat and other surf boats. Our shoreline and dock were beat to hell with no reprieve all weekend. We had ropes snap and had to move our dock 10' over to the east to get it to the original position.”

Recent Emails Supporting Wake Boats

- “If the intent is to try and make the lake “No Wake” I am 100 percent against it. If it’s just the wake boats and jet skies you’re after I’m against that also. I am also against expanding the no wake zones. Just leave things as they are, seems to be working out fine in the XX years we’ve been here.”
 - XX is multiple decades
 - Actual number of years was removed to protect the ID of the sender
- Another person supported them
 - They don’t believe wake boats are the cause, but many other type of boaters are: “drunken booze cruise pontoons”, “tuber boats”, “Drunks in fishing boats cruising 10mph 50 ft off the dock is when I've seen waves come over the dock.”

Intro to Next Two Slides

- During the next two slides, I ask for community input
- Please talk to me directly, rather than your neighbor in the meeting
- Purpose of this approach:
 - Keep the focus of the meeting on understanding the problem and its impacts to our property and approach to lake living
 - Avoid shouting matches if emotions run hot

Open Discussion of Damage to Property

- Docks, chains, etc.
- Landings, retaining walls
- Shorelines

Purpose of this slide is to communicate to your neighbors your experience so they understand your position

Please temper your emotions

Open Discussion on Lake Use

- Enjoying swimming, fishing, kayak, standup paddleboard, etc.
- Enjoying recreational boating, water sports (non-wake boat)
- Enjoying your wake boat
- Enjoying your shoreline
- Enjoying your dock

Purpose of this slide is to communicate to your neighbors your experience so they understand your position

Please temper your emotions

What Can You Do Now

- Sheriff Office (Sergeant Questin Youk) feedback to SLA
 - “I encourage you to let everyone know if they can capture any video/picture footage of any violations of the 100’ rule, the Sheriff’s Office can act upon this evidence. The best-case scenario would be video footage that shows the boat registration, who is operating the vessel, and the actual violation as it occurs. We can use this evidence to potentially issue negligent boating infractions, even though it did not occur in our presence. This would also be helpful for anyone who has experienced any damage to their docks and is wanting to seek some type of restitution in civil court.”
- SLA asked the following as follow-up
 - 1) an email address for everyone to send pictures/videos to
 - 2) an understanding of what the Sheriff's office will do.
 - Will the picture be provided to the offender? If so, some people may be hesitant because the offender could identify where the picture was taken and know who reported them.
 - Will the Sheriff contact the offender, send a notice of violation, what?

Comments by Deputy Kevin Olsen

Discussion of Possible Courses of Action

- List of options
 - Do nothing
 - Request anchored boats enjoying the day avoid anchoring in boat-traffic areas
 - E.g., anchor just inside the No-Wake zone on the east end of the lake
 - Anchor as close to the shoreline as is reasonably possible, while respecting the owners' privacy
 - Education
 - Wake boat sign at boat launch – installed and posted on sacheenlake.com
 - Renter safe boating requirement (County ordinance) – SLA is currently investigating
 - Ads in local papers
 - TV news article
 - Include more lake associations
 - SLA has already reached out to: Friends of Diamond Lake WA Foundation (FDLWF) and Washington State Lake Protection Association (WALPA) – no responses to date
 - More Sheriff involvement
 - Sheriff response to SLA query: they fundamentally don't have the resources
 - More damage liability action
 - Feasibility of it occurring? Can lake residents collect the right evidence?
 - From a “collective” of individuals to sue a single person?
 - Funding source for legal fees?
 - Will the judgment be worth the cost of the effort?

Discussion of Possible Courses of Action

- List of options - continued
 - Legislative action: local and/or state and why which option
 - No wake boats
 - No artificial, large-wake making allowed
 - More restrictive wake boat movement
 - Larger no wake zone from shoreline and docks
 - Larger wake boat operations distance from shore, keep existing 100' for other recreational boats
 - Taxation of wake boat owners for repairs (how could this be administered?)
 - Wait for another group to take legislative action
 - Research other activities and reach out to be a part of others' action
 - Do nothing and wait

Possible Courses of Corrective Action Impact

- Education and its impact
 - Is the lake large enough to have multiple wake boats operating simultaneously, even if boat operators have the best intentions to stay in the largest portion of the lake?
 - See prior slide on best operating area within the lake
 - Lake residents
 - Some may and some may not follow any “guidelines”
 - One resident who indicated they try to, but due to lake traffic they sometimes have to go closer to another boat, a dock, a shoreline, etc., while maintaining current WA law
 - Non-residents
 - They may / may not read the sign at the boat launch
 - Probability of following “guidelines” is significantly lower than for a resident
 - They may put their fun above our property damage concerns
 - Communications outreach is likely not a successful education approach
 - How do we reach out? (Ads or TV news previously suggested)
 - How do we know we reach our target audience?
 - And as always, is education effective enough?
 - Human nature
 - Will property damage and risk of injury continue even if wake boat operation is restricted to only the largest portion of the lake?

Possible Courses of Corrective Action Impact

- Legislation
 - County impact – It is possible that POC may restrict all wake at Sacheen Lake, which is detrimental to our community
 - Would the Community prefer not to take legislative action if this were the case?
 - Can we take the pulse of the County Commissioners without concern of unwarranted retribution?
 - State impact – possible long delay in activating a law
 - Would the State just push out the ordinance creating requirement to the counties?
 - Timeline
 - County Ordinance: Likely faster than a change in WA State law
 - Effort
 - Likely more effort at the State level
 - Our community can show up in mass at the County level
 - Cost
 - May / may not be able to find free legal advice
 - Enforcement
 - POC Sheriff's Marine Department is already stretched thin
 - With a law in place, fewer people will take the risk of fines and/or forfeiture of their boat
- Waiting for another group to take action – Continued damage, possible injury
 - How do we find out if another group is taking action?
 - Joining other organizations' activities would likely put more power behind the statement that change is needed
 - How long we would have to wait is unknown

Discussion of Prioritization of Course of Actions

- Education
 - This is already in process
 - Community outreach may be a next goal
 - Ad(s) in the Miner and Spokane paper
 - TV news article?
 - Other lake organizations
- Legislative – what order makes the most sense and why?
 - Coordination with other organizations
 - Education of / presentation to law makers
 - Drafting of law / ordinance, then legal review
 - Letters to representatives
 - Presentation of proposed law to legislative representative(s) / body?

Open Discussion of Timeline of Course of Actions

- Education
- Legislation

Committee(s) to Move Actions Forward

- ***Note: Slide assumes legislative action***
- What organization should tackle the actions?
 - SLA – we believe this needs a larger group than just us
 - Sacheen Lake Community
 - Small Pend Oreille County Lakes – how is this group formed?
 - Washington State Lake Protection Association (WALPA)
 - They have not responded to recent email queries
 - Other???

Support to Move Actions Forward

- ***Note: Slide assumes legislative action***
- Do we raise funds and how (e.g., Go Fund Me)?
 - Funding can support both Educational and Legislative approaches
 - Amount of funds needed differs based on the approach to move forward
- If needed, how can the committee obtain legal counsel?
 - Lakes at Stake Wisconsin template has references to existing laws
 - SLA review of their template: drafted template wording looks good
 - Equivalent or other County Ordinance or WA laws may need to be researched, referenced, etc., in any ordinance created

With Regards to the Next “Show of Hands” Slide

Since we need community input, we graciously ask that any opinions expressed herein not be taken as a judgment against your neighbor

Humor (attempt): We CAN talk about politics, religion, and wake boats with civility, if we put our minds to it!!!

Show of Hands

- How many want to do nothing?
- How many want to wait for some other group to do something?
- How many want to execute only education?
- How many want to see County legal / ordinance changes?
- How many want to see State law changes?
- How many want to be personally involved?

Final Open Discussion

- Anything else need to be expressed?
- Thoughts for “next steps”?

Links to Articles

- University of Minnesota College of Science & Engineering study
 - <https://cse.umn.edu/college/news/umn-researchers-study-waves-created-recreational-boats>
- Project Evaluation of the Impact of Waves Created by Wake Boats on the Shores of the Lakes Memphremagog and Lovering
 - <https://lmcd.org/wp-content/uploads/2022/06/Impact-of-Waves-Created-by-Wake-Boats-Canada.pdf#:~:text=The%20objective%20of%20this%20project%20was%20to,measurements%20taken%20at%20lakes%20Lovering%20and%20Memphremagog.&text=The%20energy%20present%20in%20the%20train%20of,of%20sediments%20and%20probably%20accelerates%20bank%20erosion.>
- Crew boaters in Portland protest wake boats
 - <https://www.wweek.com/news/county/2024/08/01/dragon-boaters-pack-multnomah-county-meeting-to-protest-wake-boats/>
- Minnesota Sierra Club
 - <https://www.sierraclub.org/minnesota/blog/2023/03/wake-boats-land-10000-lakes>
- Bart's Watersports – Recommended wake boat use
 - <https://www.barts.com/blogs/news/wake-surf-boating-what-depth-distance-is-best#:~:text=Check%20Local%20%26%20State%20Regulations&text=South%20Carolina%20passed%20a%20law,receive%20a%20boater%20education%20card.>
- Michigan DNR study on wake boat impacts to lakes
 - <https://mymlsa.org/wp-content/uploads/2023/07/Fisheries-Report-37-Wake-Boat-Study-Official-Version-Released-on-7.28.2023.pdf>

Wrap Up

- Thank you for coming to discuss this issue
- These issues are not fun to address – money is involved, lifestyles are involved, property is involved, and our neighbors are affected by action and lack of action
- Thank you for your civility