One reason to reject SB 1589 is that water sport tow boats and wake boats are being unfairly targeted and therefore this bill should be rejected. A 5,000-pound fishing boat can produce a similar wake to a water sport tow or wake boat. A 15,000 cabin cruiser produces a wake far greater than any wake surfing boat, yet are not targeted under this legislation.

Consider the science of physics regarding constructive wave interactions. Waves added together result in a higher wave. Boats less than 4000 pounds are capable of creating large waves. A small boat's wave combines with other boat waves or their own boat waves, resulting in large wave scenarios. How a boat is operated, speed, depth and the frequency in the same location has not been factored into this amendment. The bill is biased against tow or wake boats.

Secondly, there is no empirical evidence or peer-reviewed study linking the proposed restrictions to positively effect fish populations. Water wake sports are place summer activities, which occur outside of key migratory or spawning months. Studies show that wake boats waves, when operated at least 200 feet from shore, do not carry enough energy to have a significant impact on most shorelines.

A lack of empirical evidence that directly links the cause of erosion or damage by boats in general. Consider scientific research that shows a large impact on shoreline effects like wind, floods, currents, and vegetation. Addressing the natural dynamics of river systems must be considered. Rather than scapegoat and blame one entity, communities should look to mitigate the ever changing river shoreline by utilizing bank protection to reduce the effects of a multitude of factors. Residential development, not boat wakes, is the primary human-caused source of erosion. There is broad agreement that the lack of native vegetation and homeowner mismanagement of native trees has caused the majority of erosion. Furthermore, natural occurrences such as last winter's storm have a greater impact on river health than boating.

Third, there are already permits and zone requirements pertaining to how boats must operate regarding wake responsibility and best practices on the Willamette River. The proposed SB 1589 does not address how to better enforce recently introduced boating laws on the Newberg Pool. Rules already exist that prohibit wake sports near homes along the river. The safe operation of any size boat is the priority. Prioritize safety and address management.

In summary, do not restrict wake boats from operating in the Newberg Pool. Do not ignore the fact that one type of boat has been targeted in this bill. Do not omit environmental factors like wind or water currents, floods or vegetation have oa significant impact on shorelines. Do not forget the recent regulations and The Towed Water Sports Education Program which provide respectful and responsible solutions for boaters. I oppose SB 1589 as it is flawed and should not be passed.

-Sincerely Margaret A. Littman Portland, Oregon

#### Citations:

Oregon State Marine Board. Boater Info. Wakes

https://www.oregon.gov/osmb/boater-info/Pages/Wake.aspx

"All boats create a wake and all boaters are responsible for their wake. You can be proactive and reduce your wake simply by changing how you operate your boat to having a lower impact on those around you.",

"Many factors influence the size of a wake. These include the speed, size, design, and operation of the boat, as well as factors like water depth, speed, and temperature."

## Oregon State Marine Board. Newborn Pool Study Guide.

https://www.oregon.gov/osmb/forms-library/Documents/Education/2020\_Jan\_TWSStudyGuide\_a.pdf Chapter 3: Wake Management

## **BoatUS Foundation**

## https://www.boatus.org

"Extra displacement also can occur with the weight and shape of the pulled tube.", "Do not power turn unless absolutely necessary—this displaces extra water and can be dangerous.", "The power turn creates roller wakes that can stack with other waves and potentially impact other boaters." and "Driving your boat repetitively past one section of river all day concentrates your wakes"

# Investigation of motorboat-induced streambank erosion on the Lower Deschutes River <a href="https://ir.librarv.oregonstate.edu/concern/defaults/2b88gh38b">https://ir.librarv.oregonstate.edu/concern/defaults/2b88gh38b</a>

"Furthermore, bank erosion occurs in many places where motorboats are not the cause for erosion. Hence, motorboats should not be generally blamed for erosion problems.", "Investigation of motorboat-induced streambank erosion on the Lower Deschutes River. The greatest cause of bank erosion is natural erosion by strong currents and eddies during floods, at flow constrictions, and where flows are deflected toward the banks. Bank erosion occurs in river reaches where motorboats are excluded. Hence, prohibiting the use of motorboats will not halt bank erosion."

#### Time Magazine's Time-lapse project

https://world.time.com/timelapse2/ and https://www.vox.com/2015/2/5/7986829/river-meander

A river's path changes over time. Factors that affect these changes include speed of the water, the landscape itself, and sediment. To quote Vox, "we think of rivers as stable features of the landscape: something we can build towns and cities next to, and expect to stay in the same spot permanently. But in reality, they're constantly moving"