Dear Senators,

I am writing to you to Oppose Senate Bill 857. As an Independent voter in Oregon, I have been dismayed watching the legislative process play out since the River Bill(s) have been proposed, beginning in 2018. Many of the house bills similar to this senate bill did not pass through the House of Representatives. Other bills, that afforded the OSMB guidelines to help foster a balance on the river for ALL who recreate and enjoy the Willamette River, have passed. It is disappointing and in my opinion rather disingenuous (especially after this last year of politics) to watch how this bill has proceed, as two eerily similar bills (HB 2555 & HB 2725) were not passed in the House during this current session. The House Bills were debated and went through a thorough vetting process and did not move forward. It is also baffling that this legislation is continuing to be pushed after a devastating fire season in 2020 and a very impactful pandemic, that we are still in the midst of. I would rather be focused on those matters of importance during this time; however, legislation continues to be proposed that will be impactful for my family, and other Oregonians who boat on the Willamette, so I am again writing another email to ask for you to Oppose this legislation.

SB 857 will impact Oregon families and small businesses. The Newberg Pool is already one of the most regulated bodies of water in Oregon. I sat on a Rules Advisory Committee for the Oregon State Marine Board which brought forth rules that only allow wake surfing in two small zones (totaling 3 miles of river), and were specifically selected as these zones do not have any docks or structures. This new zone has only been in place for ONE season, when again, legislation was again proposed this session.

I will include below portions of my email to House Representatives that give some background on the proposed legislation and the reasons why I opposed HB 2555 and HB 2725 – and now SB 857.

Thank you for you time and consideration.

Sincerely, Elizabeth McCord Willamette River Homeowner

Oregon waterways are"all the navigable waters of [the] State, shall be common highways and forever free, as well as to the inhabitants of said State as to all other citizens of the United States..." as found in Section 2., Act of Congress Admitting Oregon into the Union, February 14, 1859. And within the Oregon Attorney General Opinion OP-8281, "Furthermore, as a condition of federal law, the state has a duty to keep those waterways open to the public for navigation, commerce, recreation, and fisheries......Federal and state courts have protected the public interests in state-owned waterways by voiding specific conveyances or legislation that substantially impaired or damaged fishing, navigation, recreation or commerce." https://www.doj.state.or.us/wp-content/uploads/2017/06/op8281.pdf

January 2018: I initially wrote to the House Committee on Transportation Policy regarding the Willamette River Newberg Pool "boating issue" (proposed HB 4138 & 4099 – Chief Sponsors Rep Kennemer, Rep Vial)

February 2019: I again wrote emails to the House Committee on Natural Resources regarding proposed HB 2351 & 2352

December 2019–January 2020: I was asked and participated in a Rules Advisory Committee for the OSMB regarding this laborious issue. The wording and the talking points around the current proposed bills are eerily familiar from the discussions held within the RAC meetings. It is disappointing yet again to see the reach of the legislative branch of government to circumvent the process and governing body in place through the Oregon State Marine Board. It continues to appear that if certain groups do not agree (or like?) all aspects of rules/regulations/restrictions in place, they seek out representatives to propose legislation that would align with their position, rather than seek out an unbiased solution to the issues discussed. Discussed at length with the RAC meeting was boating size/weight – as some members of the RAC wanting restrictions similar to those on a privately held lake, Lake Oswego. The Willamette River is not a private waterway, but rather a public and forever free waterway. And if Lake Oswego is the bench mark for proposing legislation on the Willamette River, I would hope those Representatives Sponsoring and Co–Sponsoring proposed House Bills would amend and include regulations and restrictions to ALL water activities on the Willamette, as seen on Lake Oswego. Through this RAC session, there are now 2 established zones for wake–boarding and wake–surfing (that total only 3 miles of river) within the Newberg Pool area – these zones do not have any docks or structures. Both of these rules/regulations have been in place for ONE boating season.....and already, the legislature is ready to again legislate and demonstrate their inherent biased towards a water recreation activity and type of boat.

I continue to be amazed at the time, energy and resources that have been spent on legislating an activity/boat type that occurs 10-30% of the year (36 days to 120 days out of 365 days — about 16-18 weekends during the summer boating season – which would be 32-36 days) — and wonder how (and have yet to receive an answer) these laws/rules/regulations will impact the more causative factors on a continuous moving river, with various debris and rising & lowering water levels and velocity, the other 329 days of the year.

• Studies have been done on other waterways in Oregon. Such as the "Investigation of Motorboat-Induced Streambank Erosion on the Lower Deschutes River" study in 1990, which states: "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."

https://ir.library.oregonstate.edu/concern/defaults/2b88gh38b

I would hope, and I believe as elected officials it is necessary to ensure the proper due diligence has been conducted and an exhaustive understanding (beyond talking points to placate constituents questions) before proceeding with any new proposed law or amended law.

I always find it interesting as I enjoy a slow boat ride along the river:

- how many homes/properties are within the FEMA floodplain (and the ever changing water levels and flow and the natural changes that occur to continuous river waterways have water levels that rise well above the shore line and drop well below the shore line) and how many properties have altered their property vegetation/landscape, riparian areas, and changed the slope of the property hillsides to the riverbank (which can be impactful on sheet, rill, gully or valley erosion that can add to bank erosion)
 - FEMA Flood Plain information https://msc.fema.gov/portal/search#searchresultsanchor
 - put in Newberg, Wilsonville, West Linn Oregon and you can select different sections of the river to view.
 - In the Willamette River Basin Challenge of Change, on page 16 it states: "Rivers are dynamic and complex living systems. When waters rise or flood, they move gravel around, carve new banks, topple trees, and push sediment downstream. These processes form and reform habitat for aquatic creatures by carving new side channels, building sheltering alcoves, damming pools with large logs, and forming new gravel bars." https://ir.library.oregonstate.edu/downloads/s1784r73f
 - More information regarding flooding can also be found in the FEMA Flood Insurance Study Clackamas County,
 Oregon Effective: June 17, 2008:
 http://www.oregonriskmap.com/index.php?
 option=com docman&view=download&category slug=pdf&alias=37-clackamas-co-fis-vol1&Itemid=32
 - The Willamette River has also had historic flooding. The flooding of 1861 & 1894 wiped out some small towns that were built along the Willamette River floodplains, including Champoeg. The flooding in 1964 and 1996 also caused extensive damage. During the winter of 2016–2017, we had extensive snow and ice throughout the Willamette Valley. Damage to trees and other structures along the river could be seen. I recommend a quick read on the the FEMA Floodplains/Flood Inundations report: "Floods raise many concerns for communities living along major rivers such as the Willamette River......Development of urban and agricultural areas along the Willamette River has placed many homes, buildings, and other structures within the floodplain of the Willamette. Communities and landowners often protect these investments by hardening the banks and minimizing channel change, which leads to reduced channel dynamics and impaired ecological conditions." "During the recent floods of 1964 and 1996, the Willamette River fully occupied its historical floodplain in the lower, narrow river and occupied most of the historical floodplain in the middle section of the river."

 http://www.fsl.orst.edu/pnwerc/wrb/Atlas_web_compressed/3.Water_Resources/3e.flood&fema_web.pdf
 - On the US Army Corps of Engineers website: "The floods of winter 1964 (Dec. 19, 1964–Jan. 31, 1965) were some of the largest flood events ever recorded for many rivers in western Oregon. Heavy rain fell directly on high elevation snowpack, melting the snow and increasing the floodwaters to levels not seen since the historic floods of 1861. The excess water altered the landscape and substantially changed river channels throughout the region. Headwater streams in the mountains of the Cascades and Coast Range became choked with debris from landslides that were triggered across the steep terrain. Floodwaters scoured the previously stable sediment from the floodplain of valley–bottom streams, causing channels to widen and meander and new gravel bars to form. Today, nearly 50 years after the flood, the geomorphic impacts of this flood can still be seen throughout western Oregon. The sediment that was deposited along many rivers during the flooding became seeded with cottonwood, willow, and alder trees, creating distinctive, even–aged modern forests. Many of the channel

changes triggered by the 1964 floods have survived recent smaller floods, so that the habitats, ecosystems, and infrastructure still show the effects of the 1964 floods."

http://www.nwp.usace.army.mil/Missions/Water-Management/Flood-Ready/Were-We/Impact/

• The "Geomorphic and Vegetation Processes of the Willamette River Floodplain, Oregon—Current Understanding and Unanswered Questions" 2013 study is a report that "summarizes the current understanding of floodplain processes and landforms for the Willamette River and its major tributaries." Pages 14 – 25, and page 40 has information on riparian vegetation, flooding, bed-material sediment, and large wood affects on river channels. On page 19, the study states:

"Flooding shapes landforms, habitat, and vegetation patterns along river corridors in the Willamette River Basin (fig. 10). The capacity of floods to form and modify channels and flood- plains is dictated largely by interactions between flood magnitude and channel geometry, and resulting local hydraulics and patterns of sediment erosion and deposition. Stream velocity and sheer stress can be highly variable, but generally increase with channel slope and water depth. Complicating the relations between floods and geomorphic consequences is the nonlinear behavior of erosion and sediment transport in relation to stream velocity and sheer stress."

https://pubs.usgs.gov/of/2013/1246/pdf/ofr2013-1246.pdf

- the build-up of dead heads/branches of trees fallen (and some obviously cut and allowed to flow down river) that collect along the rivers edge and tangle within docks and other tree roots and can change the river flow/turbidity, and the impact of that along the river bank erosion and the impact of the lack of/decrease of dredging along this part of the Willamette River

- I did find an out-dated report, "Corps of Engineers Actions Affecting Riverbanks and Channels in Willamette River Basin, Oregon", from May 1974 that does discuss this portion of the Willamette. It is interesting to consider statements made in this report as to erosion along the river. Such as:
 - "Presumably, the proposed major reduction in Willamette River dredging will result in some increase in meandering and bank erosion by Willamette River."
 - "Lands along the river which were formerly left in brush and trees because of of the threat of erosion are sometimes plowed and planted up to the riverbank following revetment construction. This change in land use has been frequently observed over many years by Corps project engineers, but no information is available as to the amount of land involved or whether this is a significant impact of bank protection."
 - "Continue the past dredging practice......from the Willamette River between Portland and Corvallis, as well as snagging. While the channel has been maintained at only 14 percent of the authorized project, it has provided considerable benefits to commercial and recreational boaters and has served to reduce bank erosion and channel changes."

https://books.google.com/books?id=JhU0AQAAMAAJ

Regarding HB 2555 and 2725 and would also be applicable for SB 857:

These bills will cause more congestion on the river and make the stretches of our river less safe. It will be impactful and harmful to small businesses that depend on recreational boating. A recent article from Pamplin Media quoted the Oregon Department of Fish and Wildlife (ODFW) Deputy Fish Chief Bruce McIntosh responding to the question if "....wake sports really impact salmon and steelhead populations, and, if so, to what degree?" as stating, "Our perspective is they have little to no effect......(the Newberg Pool) is not a place they spend a lot of time making a living (during the summer). (We) look at that and say the impacts are low." An ODFW staffer said that "during peak time when wake sport activities are most popular, the summer months, those species already have completed migration and are more likely to be located in the portion of the Willamette River near the McKenzie and the Santiam tributaries."

Interesting to note that legislation continues to push for restrictions and rules/regulations for a certain water activity and style of boat; whereas ALL boats create a wake and their wake has wave energy. As noted in the "Review of Boat Wake Wave Impacts on Shoreline Erosion and Potential Solutions for the Chesapeake Bay" report: "Shoreline change may include shoreline erosion and resuspension in the foreshore environment, although sediment can be transported landward as well. The balance of transport (whether the shoreline erodes or accretes) depends on the size of the wake (Osborne and Boak 1999, Houser 2011). Most studies found the effects of boat wakes on the shoreline are dependent on many factors. Site-specific conditions such as water depth, bank profile, type, size and supply of sediment and bank resistance can control suspended-sediment concentrations (McConchie and Toleman 2003, Hughes et al. 2007)." and "Waves that travel in water that is deeper than 1/2 of their wavelength (the distance between two successive wave crests) are referred to as deep water waves. The motion of deep water waves do not penetrate the full depth of the water column, thus these waves have little impact on the bottom sediments (Sorenson 1997, Hill et al. 2002). As a deep water wave travels away from the sailing line, wave height will decrease with distance traveled as wave energy spreads out along the wave crest. Given a long enough transit in deep water, much of the wave energy will distribute over a wide area before reaching a shoreline. In deep water, the speed at which a wave moves away from its point of generation is largely a function of wavelength; waves with longer wavelengths travel faster than those with shorter wavelengths".

An OSU wave experts gave a presentation to the Marine Board in which they wrote, "The intensity of the erosion produced by boat wakes can be considered as very small."

They also stated that there are so many known contributors to erosion, including many natural causes and also agriculture, development and construction on the banks, dams, dredging, etc. A study to understand and know the impact boat wakes and other factors may have on erosion would need to be done. The OSU presenters wrote, "A long-term, monitoring program (minimum of 1 year) would provide information on the magnitude of the different agents affecting the morphological evolution of the river margins."

Through the OSMB, many regulations have been placed on boats that participate in certain water sport activities. Interestingly, the Oregon Legislature only sought to have the OSMB establish a Towed Watersports Education Program but did not require others who recreate on the Willamette additional education to understand/know the rules and responsibility of recreating on the Willamette. A noted bias that is seen when others boating on the Willamette (ski boats, boats pulling a tube, fishing boats, day cruising boats, kayaks, SUP, canoes, etc.) do not follow the RULES in place.

I am hopeful that you will find that boat wakes & the restriction of boats will NOT be the "Solution" to the erosion process along the Willamette River and will not be the solution to river safety (as there are already rules in place & enforced – and perhaps again a suggestion that ALL who recreate on the river – motorized AND non-motorized be required to take a test and understand the rules for their activity). Personal observation is subjective; and unfortunately, not always accurate. Studies and data rely upon science to draw conclusions, not just personal observation. Science, simply, is knowledge based on demonstrable and reproducible data. Science aims for measurable results through testing and analysis and is based on factual & accurate data, not opinion or preference. Personal opinion, perception, observation, and experience will inherently be prone to bias. The Willamette River is a continuous waterway that endures the force of natural and complex processes. Allow the Willamette River to be enjoyed by all Oregonians.