March 20, 2019

To: Senate Committee on Veterans and Emergency Preparedness

From: Tom Potiowsky

Northwest Economic Research Center, Portland State University

RE: SB 678: Repair, Upgrade, Return to Operations for the Salvage Chief

Good Morning Chair Olsen and members of the Committee. For the record, my name is Tom Potiowsky, former Director of the Northwest Economic Research Center (NERC) at Portland State University. I am here today on a volunteer basis and no funds were paid to NERC or to myself.

From a Homeland Security presentation slide dated June 13, 2018, they provide the following description of "Resilience":

- What is "Resilence"? The ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions.
- Includes the ability to withstand and recover from deliberate attacks, accidents, or naturally occurring threats or incidents.
- Key considerations: The "connectedness" of infrastructure; crucial dependencies and linkages of critical systems.

Cascading impacts from disasters.

Knowledge, planning, and coordination among critical infrastructure partners.

The Columbia River exemplifies the interconnectedness of industries and geography. You have the direct connection all the way from Lewiston, Idaho to the mouth of the Columbia. Then there is railway and trucking from parts of Washington, Idaho, and the Plains states that bring more commerce to the river. Here are a few descriptions of the economic value of what flows thru the Columbia River Basin and overseas¹:

- The Northwest is ranked as the nation's #1 U.S. export gateway for wheat and barley and #1 on the West Coast for wood exports and #2 on the West Coast for automobile imports.
- Every year, over 42 million tons of commercial cargo is sent overseas from the ports on the Lower Columbia River
- Cruise ships carry 15,000 passengers a year on five to seven-day tours on the river, bringing an estimated \$15 million to \$20 million in revenue to local economies.
- \$23 billion in waterborne cargo annually pass through the Columbia River Corridor.
- Columbia River ports identified 40,000 port-related Northwest jobs. Firms that ship cargo via the Columbia River employ an additional 59,000 workers annually

Project managers are concerned with process flows and make sure they identify "bottlenecks". A Cascadia Subduction Zone earthquake may likely block all the Columbia River commercial traffic making

¹ Sourced from various studies: Northwest River Partners (2014), Pacific Northwest Waterways Association (2016), Port of Astoria: Economic Impact Study (2009)

its way thru Astoria. Suspected debris following the earthquake could be the Astoria and Longview bridges. From the report, *Cascadia Subduction Zone Earthquakes: A Magnitude 9.0 Earthquake Scenario (2013)*, points out the problems of both moving out over the Columbia bar and moving back in toward Astoria:

"Shipping channels may also be disrupted by a Cascadia earthquake. Sections of the Columbia and lower Willamette rivers, for instance, are likely to be closed to shipping due to underwater landslides and the presence of debris where ground failures have caused parts of structures, such as bridges and electrical transmission towers and lines, to topple into the river." P.11

"Because of damage to shipping channels, it may not be possible to transport petroleum by boat from the refineries in Puget Sound to Portland and other points along the Columbia and Snake rivers. Without the ability to store and distribute liquid fuels locally, shortages are likely, affecting not only the use of vehicles and aircraft, but also critical facilities and key industries." P 12

The Salvage Chief is at the Tongue Point Job Corps Center, a maritime training program near the mouth of the Columbia River. With programs related to Clatsop Community College, Maritime Seamanship Student Training, and US military expenditures of \$650K since 2015, the Salvage Chief is already contributing to the Astoria economy.

While a more in depth study would reveal more numbers on jobs, output value, tax revenues, and the like associated with the economic impact that percolates thru the economy, one can say that keeping the lower Columbia River operational is vital to the economic health of the region. The Salvage Chief presents itself today as the most viable option for removing any obstacles that could block the river due to a devastating act of Nature. And as the ships history demonstrates, it can be used in the meantime for any necessary salvage work and further training.