Orcas and oil spills are a catastrophic mix

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The remaining southern resident orcas are exceptionally vulnerable to extinction by a large spill.

By Fred Felleman

Gov. Jay Inslee’s supplemental budget includes funds needed to recover our endangered orcas and to prevent their extinction from a catastrophic oil spill. A recent series of underreported oil spills and maritime mishaps makes the timing even more urgent.

Protection of the environment is key to the state’s economy. An estimated 1,000 visitors a week come to glimpse the Salish Sea’s natural beauty. But that beauty veils ugly environmental realities. The dramatic decline of our once ubiquitous orcas from at least 100 to just 76 individuals shows that the Salish Sea is unraveling, putting into question the whales’ residence, along with our region’s economic and cultural heritage.

While many factors have contributed to the whales’ decline, living in tight family groups, or pods, makes the remaining resident whales exceptionally vulnerable to extinction by a large spill.

The ongoing commitment of many sectors of our maritime community to shipping safety has resulted in an admirable oil-spill record. Rather than waiting for the next spill, the Legislature has taken proactive measures, such as the Neah Bay emergency response tug, which has responded to 57 ships in distress, preventing a potential 18,677,954 gallons of oil from spilling in the Salish Sea since 1999, according to the Department of Ecology.

However, our oil spill record is in jeopardy. While many shipping-safety measures have focused on preventing catastrophic oil spills from large tankers, a recent series of significant incidents involving under-regulated oil barges and articulated tug barges, which move millions of gallons of oil through the Salish Sea, have demonstrated the need for immediate legislative attention to such vessels.

Unlike tugs that tow oil barges, articulated tug barges connect to even larger barges and are pushed from behind. A 2014 Congressional Research Service report explains articulated barges are considered “rule breakers” within the maritime industry because they operate with smaller crews. These tug barges are also not required to take pilots. Some employ captains with local knowledge, but that doesn’t add more eyes at the helm.

The economic advantages of smaller crew sizes and the lack of pilotage account for the rapid adoption of articulated barges and the lag in regulatory oversight. But the environment bears the costs. Improving shipping safety on the Salish Sea would not only protect the environment but support jobs that allow us to responsibly reap the economic benefits of trade.

Oct. 13 was the anniversary of the Nathan E. Stewart, an articulated tug barge that sank near Bella Bella, B.C. Fortunately, it didn’t have oil cargo, but its 29,000 gallons of fuel and lube oil that spilled significantly impacted the Heiltsuk First Nation’s subsistence harvest. It was later determined that the second mate had fallen asleep.

And on Nov. 26 this year, the articulated barge Jake Shearer, which had replaced the sunken barge Nathan Stewart, lost power and almost grounded close to the same location. In addition to 125,000 gallons of fuel, that tug barge held more than 790,000 gallons of oily cargo. Once again the Heiltsuk Tribal Council was among the first on scene and with the help of another tug, kept it from grounding.

Both U.S. articulated barges were transiting between Washington refineries and Alaska through Canadian waters with exemptions from Canadian pilotage laws. Barges and articulated tug barges ship tons of oil to fuel ships as well as diluted heavy Alberta bitumen to Salish Sea refineries. Concerns around the bitumen propensity to sink have been heightened with the sevenfold increase in tankers expected to result from the recently approved Kinder Morgan Pipeline expansion.

There have also been a troubling amount of barge incidents in our endangered orcas’ local critical habitat. Between 2011 and 2013, there were seven serious incidents involving towed barges in Rosario Strait as well as numerous others on the Canadian side of our shared waters in the past two years.

The track record and frequent use of articulated tug barges and barges deserve immediate regulatory attention. The state DOE reports that in 2016 articulated tug barges and barges made 1,169 and 4,349 calls in the Salish Sea, respectively. They clearly create more risk exposure as compared to tankers that made only 574 calls.

Legislators must recognize the risks posed by oil barges and articulated tug barges and not let the region’s lack of catastrophic oil spills lead to complacency. California already requires articulated tug barges and barges to have tug escorts, whereas even some refined-product tankers aren’t required to in Washington state.

The governor’s supplemental budget provides urgency for broad collaboration to assure appropriate legislation passes during this short session, building on the bill introduced last year.

We must continue to mend the ecological fabric of the Salish Sea if we wish our orcas to return to their former residence. In the meantime, just one major spill could render all our recovery efforts moot and relegate our totems to museums. I hope this will be among the top priorities of the new Legislature.

Fred Felleman is the Northwest consultant for Friends of the Earth. He came to the Northwest in 1980 to study resident orcas and was elected to the Port of Seattle Commission in 2015. You can contact Fred at felleman@comcast.net
**Articulated Tug Barges (ATBs) = Under-regulated Oil Tankers**

**What is an ATB?**
Unlike traditional oil barges that are towed by a wire or pushed from behind, ATBs are large barges with a notch and pins that enable a tug to connect to the barge. ATBs compete with coastal product tankers that can hold between 20-45,000 deadweight tons of oil (5-14 million gallons) - that’s more than the 1989 Exxon Valdez oil tanker spill in Prince William Sound, Alaska.

**Why care?**
- ATBs require crews of 7-10 while oil tankers of the same size require 22-32 crew.
- ATBs can have just 1 engineer while oil tankers have up to 7 (crews can work 15 hr/day).
- ATBs are not required to take expert pilots on board like oil tankers must.
- ATBs are not required to obey one-way traffic rules in Rosario Strait that oil tankers must.
- ATBs are not required to have tug escorts that larger oil tankers must.

Since 1975 Friends of the Earth has maintained a presence in the Pacific Northwest, covering a broad range of environmental issues. Since 2001 Friends of the Earth’s Oceans & Vessels program in the Northwest has applied our unique combination of expertise in marine ecology and maritime trade to protect the unique species that call the Salish Sea and West Coast waters home - from orcas to the herring and endangered salmon on which they depend by providing strong leadership and strategic actions to reduce ship generated pollution, including air and water emissions as well as oil spills.

For more info contact Verner Wilson vwilson@foe.org or Marcie Keever at mkeever@foe.org

**Average Freight Rate Assessment (AFRA) Scale - Fixed**

<table>
<thead>
<tr>
<th>Cargo Type</th>
<th>Vessel class, capacity (thousand deadweight metric tons)</th>
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<tbody>
<tr>
<td>Refined products</td>
<td>GP (General Purpose) 10-25 DWT</td>
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<td></td>
<td>MR (Medium Range) 24-45 DWT</td>
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<td></td>
<td>LR1 (Long Range 1) 45-80 DWT</td>
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<tr>
<td></td>
<td>LR2 (Long Range 2) 80-160 DWT</td>
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<tr>
<td></td>
<td>VLCC (Very Large Crude Carrier) 160-320 DWT</td>
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<tr>
<td></td>
<td>ULCC (Ultra-Large Crude Carrier) 320-550 DWT</td>
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**ATBs = Size of Top 2 Oil Tankers**

**Where do they operate?**
ATBs ship oil throughout the Salish Sea spending most time near the State’s 4 largest refineries in Anacortes and Cherry Point - shuttling oil to ships at the Ports of Seattle and Tacoma as well as to the US Oil Refinery and Targa Sound Terminal in Tacoma. ATBs ship oil along the coast to Oregon and California as well as British Columbia. Rosario Strait/Guemes Channel is amongst the highest-risk passageway ATBs travel. Unlike Neah Bay, there is not an emergency response tug in Rosario Strait.

2015 ATB MOVEMENTS IN THE SALISH SEA
Vessel Traffic Risk Assessment (VTRA 2015)
Rene Van Dorp and Jason Merrick
George Washington University/Virginia Commonwealth University