



Board of Pilotage Commissioners – Tug Escort Rulemaking

Workshop #2: Escort Tug Capabilities



Workshop Topics

1. Rulemaking overview and scope.
2. Escort Tug Capabilities.
3. Next workshop: Ideas for escort options.



Why are we doing this rulemaking?

ESHB 1578 required the following:

- Escorts in Rosario Strait and waters east for small oil tankers, Articulated Tug Barges (ATBs), and towed barges (codified in RCW 88.16).
- By December 31, 2025, BPC, in consultation with Ecology, adopt tug escorts rules for small oil tankers, ATBs, and towed barges in Puget Sound.
 - This rule making must address the tug escort requirements in Rosario Strait and connected waters east and may adjust or suspend those requirements.
- By October 1, 2028, and no less often than every ten years 10 thereafter, the BPC and Ecology consider the effects of these rules and determine whether an update is needed.



Rule Overview

What might this rulemaking do?

- The adopted rules could establish new escort requirements in Puget Sound and/or could adjust or suspend the existing escort requirements for Rosario and waters east.
- Provide preventative measures to reduce the risk of a major oil spill.

Why tug escorts?

- Tug escorts for tank ships have been part of the marine safety system in Washington since 1975.
- Tug escorts can quickly assist vessels in distress and reduce the risk of a major oil spill. Small oil tankers, tank barges, and ATBs were not part of the escort requirements, leaving a gap in the safety regime.
- Oil spill prevention protects Southern Resident Killer Whale and other species, fishing, and public health.



Workshops and Outreach

Dates	Activity
February 2023	CR-101, rule announcement
March 2023	SEPA Scoping meeting
May 2023 – Dec 2024	Workshops with tribes, stakeholders, and interested parties
July 2025	CR-102, propose rule
December 2025	CR-103, adopt rule
January 2026	Rule effective

Dates	Activity
May 17, 2023	Stakeholder Workshop #1
May 24, 2023	Tribal Meeting #1
June 21, 2023	OTSC
June 29, 2023	Stakeholder Workshop #2
July 13, 2023	Tribal Meeting #2
September 14, 2023	OTSC
September 27, 2023	Stakeholder Workshop #3
October 3, 2023	Tribal Meeting #3
October 31, 2023	Public Information session #1



Scope - The rulemaking will amend WAC 363-116-500.

The rulemaking will:

- Describe tug escort requirements for the following vessels operating in the waters east of the line extending from Discovery Island light south to New Dungeness light and all points in the Puget Sound area:
 - Oil tankers of between five thousand and forty thousand deadweight tons.
 - Articulated tug barges (ATB) and towed waterborne vessels or barges greater than five thousand deadweight tons that are designed to transport oil in bulk internal to the hull.
- Specify operational requirements for tug escorts, where they are required.
- Specify functionality requirements for tug escorts, where they are required.



Scope continued

- Consider the existing tug escort requirements applicable to Rosario Strait and connected waterways to the east, established in RCW 88.16.190(2)(a)(ii), including adjusting or suspending those requirements, as needed.
- Describe exemptions to tug escort requirements, including whether certain vessel types or geographic zones should be precluded from the escort requirements.
- Make other changes to clarify language and make any corrections needed.

Today's Discussion Topic:

Operations and capability requirements for escort tugs



Existing tug capability requirement

- RCW 88.16.190 existing requirement is for tugs providing escorts to tankers over 40,000 DWT to have an aggregate shaft horsepower equivalent to at least five percent of the deadweight tons of the escorted oil tanker.
- This rulemaking will not edit this RCW 88.16.190 requirement.

Capability ideas for consideration are:

- Horsepower
- Escort Equipment
- Ancillary Equipment
- Bollard Pull
- Screws / Drive
- Certifications



Horsepower Ideas

Horsepower used by local escort providers is 4,700 – 8,000.

- Aggregate shaft horsepower equivalent to at least 5% of the DWT the escorted tanker (6,250 for the 125,00 DWT tankers).
 - [RCW 88.16.190: Oil tankers—Restricted waters—Requirements.](#)
- Horsepower at least 4,000.
 - [314 CMR 19.00: Oil Spill Prevention and Response | Mass.gov](#)
- Horsepower at least 10,000.
 - [Regulatory Assessment: Use of Tugs to Protect Against Oil Spills in the Puget Sound Area, prepared for United States Coast Guard \(1999\)](#)

“... the true measure of an escort tug is not solely dependent on horsepower, but on design and propulsion type.” [Study of Tug Escorts in Puget Sound, prepared for WA Dept of Ecology \(2004\)](#)



Equipment Ideas

- Primary and secondary VHF radios, appropriate fending, power line handling equipment fore and aft.
 - [Cal Code 14 851.23](#)
- 300-foot towline.
 - [Cal Code 14 851.23](#)
- Render-recovery towing winch systems.
 - [Tanker Escort System \(pwsrccac.org\)](#) (sentinel tug at Hinchinbrook)
- Main towing gear with components rated with a design load of at least 3 x Bollard Pull.
 - [Tanker Escort System \(pwsrccac.org\)](#) (sentinel tug at Hinchinbrook)



Ancillary Equipment Ideas

- Firefighting equipment.
 - [314 CMR 19.00: Oil Spill Prevention and Response | Mass.gov](#)
- Containment boom, oil skimmers, work boat, storage for recovered oil, and a trained response crew (on 1 of the 2 escorts).
 - [Tanker Escort System \(pwsrccac.org\)](#) (sentinel tug at Hinchinbrook)



Bollard Pull Ideas

Bollard pull of local escort providers is 46 – 91.

- 50 ton bollard pull.
 - [314 CMR 19.00: Oil Spill Prevention and Response | Mass.gov](#)
- 100 - 110 ton bollard pull.
 - [Regulatory Assessment: Use of Tugs to Protect Against Oil Spills in the Puget Sound Area, prepared for United States Coast Guard \(1999\)](#)
- 185 ton bollard pull.
 - [Tanker Escort System \(pwsrcac.org\)](#) (sentinel tug at Hinchinbrook)
- Bollard Pull Certificate issued in accordance with International Association of Class Societies (IACS) standards.
 - [HSC Puget Sound Towing Vessels - Bollard Pull Testing - Standard of Care](#)



Screw / Drive Ideas

Local escort providers have voith, Z-drive, or ASD propulsion.

- Tractor tug or twin screws with separate power to each screw.
 - [314 CMR 19.00: Oil Spill Prevention and Response | Mass.gov](#)
- Twin screws.
 - [Study of Tug Escorts in Puget Sound, prepared for WA Dept of Ecology \(2004\)](#)
- Twin screw, with lateral thruster or ASD propulsion.
 - [Tanker Escort System \(pwsrccac.org\)](#) (sentinel tug at Hinchinbrook)
- VSP or Z-Drive tractor configuration.
 - [Regulatory Assessment: Use of Tugs to Protect Against Oil Spills in the Puget Sound Area, prepared for United States Coast Guard \(1999\)](#)
- Tractor.
 - [Study of Tug Escorts in Puget Sound, prepared for WA Dept of Ecology \(2004\)](#)



Certification Ideas

- American Society of Testing and Materials (ASTM) Standard Guide for Escort Vessel Evaluation and Selection.
 - [Study of Tug Escorts in Puget Sound, prepared for WA Dept of Ecology \(2004\)](#)
- EPN (escort performance numeral) Notation by Class.
 - Escort Notation by: Brendan Smoker, P.Eng [RAindrops Issue 2 \(ral.ca\)](#)
- American Bureau of Shipping (ABS) classifications: Fire Fighting Vessel Class 1 and Maltese Cross A1 (Towing Vessel).
 - [314 CMR 19.00: Oil Spill Prevention and Response | Mass.gov](#)
- Meet Class Society salvage and firefighting standards.
 - [Tanker Escort System \(pwsrccac.org\)](#) (sentinel tug at Hinchinbrook)



Tethering Considerations

- Small (less than 40,000 SDWT) tankers, unlike larger tankers, are generally not designed to have tethered escort tugs and there have been instances of hard point failure (ships, hardware, such as bitts, being pulled out) due to the force of a tethered tug pulling on the lines. [\(Badger, 2014\)](#)
- Tethered tug may be delayed in assisting with another vessel incident in the area. [\(Badger, 2014\)](#)
- Passing the tether requires close quarters maneuvering which can increase risk to crew and vessels.
- Operating in tethered mode increases risk to the escorting vessel.
- A tethered tug needs less time to connect and control a disabled vessel.



Other Ideas?

- Other operational and functional requirements?
- Current capabilities of local tugs in escort service?



Next Workshop: Ideas for Escort Options

- Remove Rosario and waters east requirement (Pre – 2020).
- Maintain Rosario and waters east requirement – no other change.
- Escorts for specific vessels in specific zones.
- Escorts for all vessel types in all zones.
- Escort service for all vessel types within 30 mins.





Thoughts?

Thank you!

