



Board of Pilotage Commissioners – Tug Escort Rulemaking

Workshop #6



Agenda

1. Research to consider
2. Insights from research
 - Escort Benefits and Concerns
 - Zones
 - Vessel Types
3. Discussion:
 - Next workshop
 - Other research considerations?



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.

BPC and Ecology signed an Interagency Agreement (IAA) in 2020

- **BPC role**

- Outreach lead
- Government-to-government consultation
- Final decisions on tug escort requirements

- **Ecology role**

- Rulemaking process
- Technical expertise
- Regulatory analyses
 - Administrative Procedures Act (APA)
 - State Environmental Policy Act (SEPA)
 - Regulatory Fairness Act (RFA)

Research to Consider



Rulemaking References Examples

(Harbor Safety Committees, State & Federal Regulations)

1. [HSC Puget Sound Harbor Safety Plan](#)
2. [HSC San Francisco Harbor Safety Plan](#)
3. [HSC LA/LB C.3 History of Tug Escort Guidelines](#)
4. [California Code 14 851.23](#)
5. [Massachusetts Requirements for Tugboat Escorts fact sheet](#)
6. [33 CFR 168.50 \(b\)](#)
7. [Best Available Technology for Tanker Escorts \(pwsrcac.org\)](#)
8. [Tanker Escort System \(pwsrcac.org\)](#)
9. Oregon Treaty of 1846

Rulemaking References Examples

(U.S. Coast Guard and WA State reports)

10. Canada and US Agreement on Vessel Traffic Management for the Juan De Fuca Region
11. [USCG Puget Sound PAWSA \(2017\)](#)
12. [Regulatory Assessment: Use of Tugs to Protect Against Oil Spills in the Puget Sound Area, prepared for United States Coast Guard \(1999\)](#)
13. [Washington SRKW Task Force \(2018\)](#)
14. [Ecology Report of Vessel Traffic and Vessel Traffic Safety: Strait of Juan de Fuca and Puget Sound Area \(2019\)](#)
15. [Study of Tug Escorts in Puget Sound, prepared for WA Dept of Ecology \(2004\)](#)
16. [Ecology Tug Escort Analysis Report](#)
17. [Ecology ERTV Analysis Report](#)
18. [Ecology Vessel Activity Synopsis](#)

Rulemaking references examples

(Pilotage groups- BPC, PSP, PPA)

19. [BPC Geographic Zones](#)
20. [BPC Synopsis of Changing Vessel Traffic Trends](#)
21. [PPA Notice to Industry: Escort tug rules for ships carrying liquids in bulk](#)
22. [Pacific Pilotage Authority General Information For Agents Booklet Sep 2018](#)
23. [Report on the findings of the Pilotage Risk Management Methodology PRMM to assess the Use of Escort Tugs in Haro St and Boundary Pass for Liquid Bulk Vessels, In Product, less than 40,000 SDWT](#)
24. Puget Sound Pilots and Pacific Pilotage Authority MOU
25. Coast Pilot 10 [CPB10 WEB.pdf \(noaa.gov\)](#)



Rulemaking References Examples

(Academic, Research, Industry Publications)

26. [Standard Guide for Escort Vessel Evaluation and Selection \(astm.org\)](#)
27. [Allan and Molyneux 2004 EscortTugDesignAndAlternatives](#)
28. [Allan and Phillips 2013 An Evaluation of Local Escort and Rescue Tug Capabilities in Juan de Fuca Strait](#)
29. [Allan and Phillips 2016 Summary of BAT requirements](#)
30. [Marine Oil Spill Prevention, Preparedness, Response, and Recovery: World-Leading Examples \(2015, Nuka Research\)](#)
31. [Merrick. 2002, Evaluation of Tug Escort Schemes Using Simulation Drifting Tankers](#)
32. Gray2001. WorkBoat. Development of Tanker Escort Regulations in the US
33. Brooks and Slough, The Utilization of Escort Tugs in Restricted Waters
34. [VTRA 2015 FINAL REPORT, UPDATING THE VTRA 2010](#)
35. [TRANSMOUNTAIN Marine Safety Enhancements](#)



Research Insights on Escort Benefits and Concerns



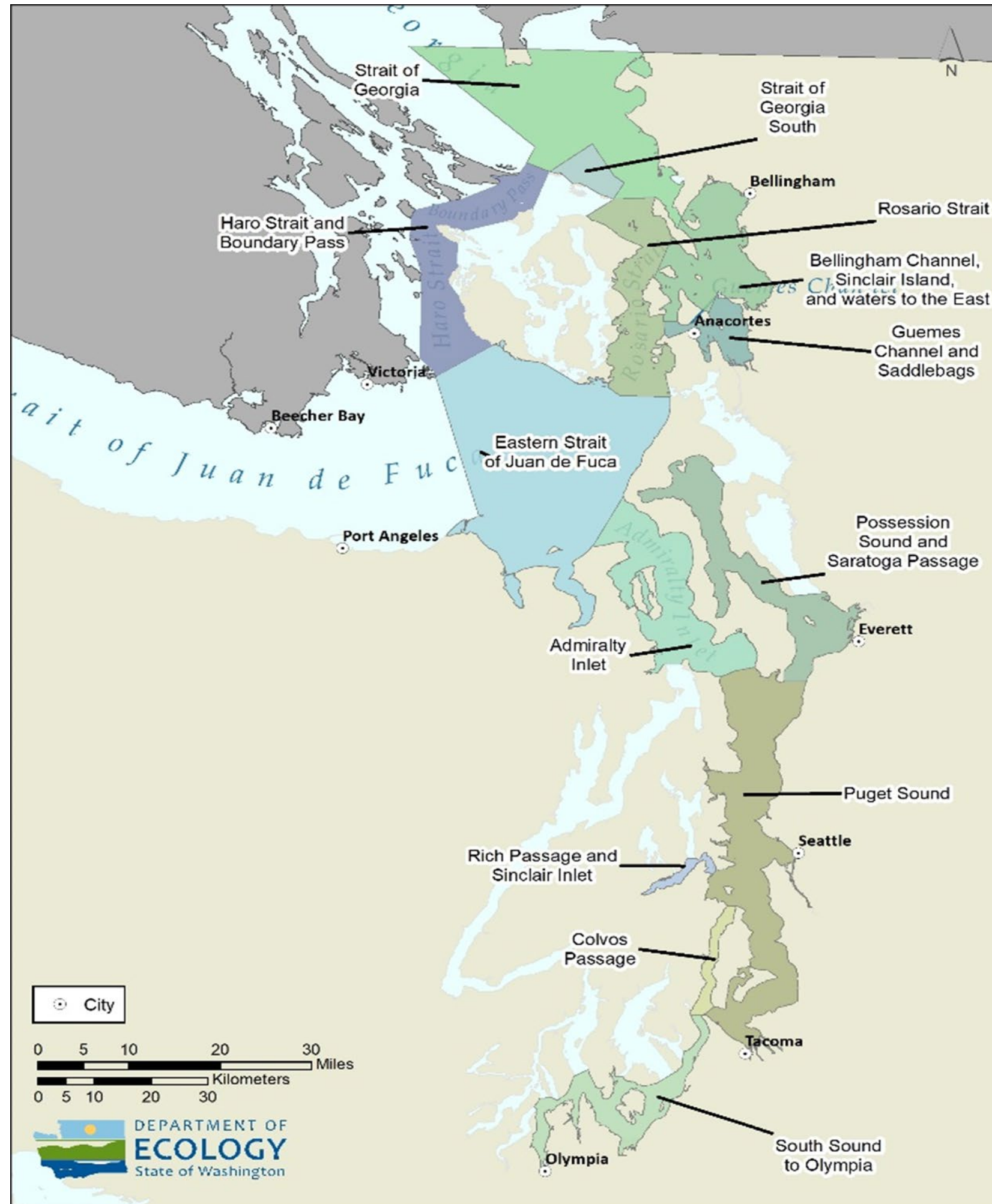
Overarching Escort Benefits

- Oil spill risk reduction ^{2, 12, 14}
- Immediate assistance for loss of propulsion or steering ^{2, 12, 14, 23, 30}
- Enhanced situational and hazard awareness ^{12, 14, 15, 30}
- Increased number of capable tugs in the region to act as tugs of opportunity
- Ensure Washington remains a leader in environmental protection (See MA and CA requirements which both include escorts for barges and ATBs)

Overarching Escort Concerns




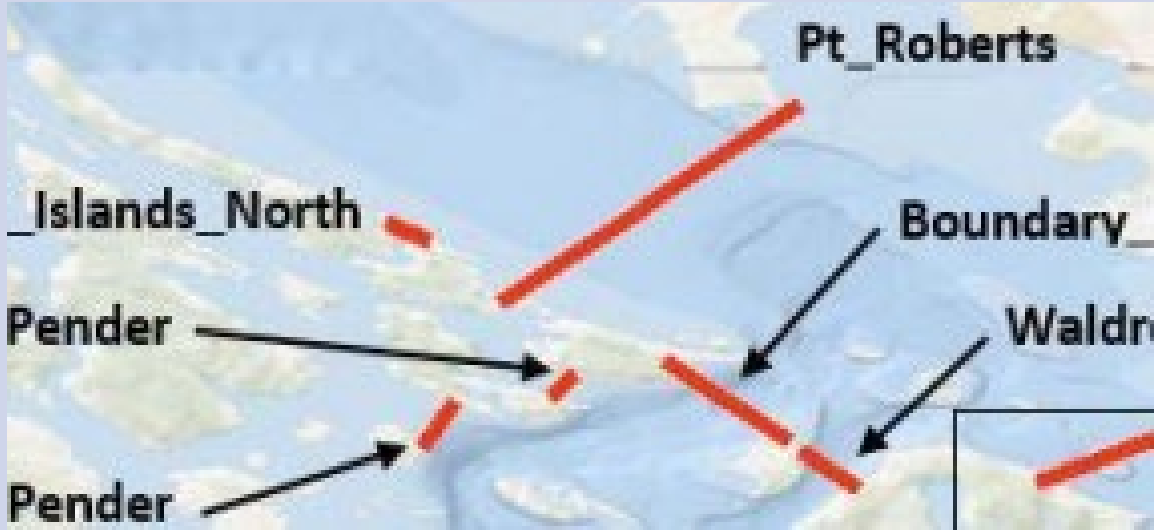
- Tribal treaty rights and fishing area impact
- Air Emissions
- Underwater Noise
- Waterway Congestion
- Oil Spills from tug incidents
- Uncertainty on tug availability
- Uncertainty about compatibility with cross-border regulations

Research Insights on Zones





- Rulemaking will need to consider which zones should require escorts


Zone Considerations

Zone	Risk or Concern
<p>Eastern Strait of Juan de Fuca</p> 	<p>Port Angeles Precautionary Area is vulnerable to congestion ¹¹</p>
<p>San Juan Islands</p> 	<p>Conflict between commercial and recreational vessels where the Islands open to the main shipping channel ¹¹</p>
<p>Strait of Georgia</p> 	<p>The 2021 Ecology Vessel Activity report's Point Roberts transit line showed 23 percent bulk carriers, 22 percent tugs, and 12 percent container ships. ¹⁸</p> 


Zones Considerations

Zone	Risk or Concern
<p data-bbox="93 324 806 380">Haro Strait/ Boundary Pass</p>  <p data-bbox="83 1084 753 1549"></p>	<p data-bbox="869 324 3112 465">Combination of shallow water hazards, narrow channels and significant channel bends. ^{14, 23}</p> <p data-bbox="869 549 3252 690">Turn Point and East Point area is high risk for drift groundings. This area is vulnerable to congestion, whirlpools and upwelling ^{11, 14, 23}</p> <p data-bbox="869 718 3258 943">The United States and Canada, in cooperation with industry and the British Columbia Coast Pilots, established a Special Operating Area at the intersection of Haro Strait and Boundary Pass in the vicinity of Turn Point Light. ²⁵</p> <p data-bbox="869 962 2602 1028">Portions of this area can see heavy and dangerous tide rips. ²⁵</p> <p data-bbox="869 1103 3178 1497">2021 Ecology Vessel Activity report's crossing line at the south end of Haro Strait showed recreational vessels made up a high percentage of Haro South transits (24 percent, 2,960 transits). Bulk carriers make up 21 percent (2,600 transits) and container ships make up 12 percent (1,427 transits) of Haro South crossing line transits. ¹⁸</p> <p data-bbox="869 1581 3245 1806">This is the zone tankers traffic to the Westridge Marine Terminal would travel through. Tanker numbers to that terminal are expected to grow from 5 to 34 tankers a month as a result of the Transmountain expansion project. ³⁵</p>



Zones Considerations

Zone	Risk or Concern
<p data-bbox="33 347 699 478">Rosario Strait and waters east</p> 	<p data-bbox="783 347 3265 872">Rosario Strait is a narrow waterway connecting the Strait of Georgia and the Inland Passage of British Columbia with the Strait of Juan de Fuca. Rosario Strait is part of the larger Eastern San Juan Island VTS Special Area. An International Maritime Organization (IMO) designated one lane Traffic Separation Scheme (TSS) with no separation zone traverses Rosario Strait. Rosario Strait experiences substantial tidal currents and has numerous hazards to navigation. ¹</p> <p data-bbox="783 1003 3265 1435">Pilots encounter fishing vessels. Strong currents slow down tug and barge traffic. There is a high risk of groundings due to rocky shoals and currents, rocky shorelines, shallow water hazards, narrow channels and significant channel bends. Transit corridors are limited by off-lying hazards and distance from infrastructure.^{11,} ¹⁴ There is a choke point between Huckleberry and Saddlebags Islands. ¹⁴</p>

Zones Considerations

Zone	Risk or Concern
<p data-bbox="33 347 759 487">Rosario Strait and waters east</p>  <p data-bbox="49 553 743 1125">The map shows the Rosario Strait region in Washington state. Key locations and waterways labeled include: South, Bellingham, Rosario Strait, Bellingham Channel, Sinclair Island, and waters to the East, Anacortes, and Guemes Channel and Saddlebags. The map uses different shades of green and blue to delineate these areas.</p>	<p data-bbox="776 459 3292 938">2015 VTRA findings on impacts of untethered escorts on ATBS and barges were that the greatest decreases in potential oil losses were in Rosario and Saratoga/Skagit waterway zones and the greatest reductions in potential accident frequency in Puget Sound South and Guemes waterway zones. ¹⁴</p> <p data-bbox="776 1078 3292 1566">2021 BPC Vessel Traffic Trend Report found the 2020 Tug Escort Requirement didn't meaningfully affect route selection or tank vessel traffic and that most transits in the study area by tank vessels subject to the tug escort requirement were through Rosario Strait both before and after the tug escort requirement took effect. ²⁰</p>

Zones Considerations

Zone	Risk or Concern
<p data-bbox="33 352 699 484">Rosario Strait and waters east</p> 	<p data-bbox="783 352 3282 741">2021 Ecology Vessel Activity report's crossing lines at Rosario South and Rosario North had the second and third highest tug transit counts in that study area in 2018 (4,076 for Rosario South and 3,727 for Rosario North), exceeded only by the Admiralty Inlet line which saw 4,168 tug transits. ¹⁸</p> 

Zones: Other Jurisdictions




Jurisdiction	Zones?	Description of Zoned Approach
California	Yes	<ul style="list-style-type: none"> Requirements vary across 6 major harbors within the state In general, they apply to all tank vessels SF Bay Area: Six zones with variation in requirements, braking force, equipment, stationing, and speed limits
Massachusetts	Yes	<ul style="list-style-type: none"> Areas of special interest that delineate where escort requirements apply
Prince William Sound	Yes	<ul style="list-style-type: none"> Escorts are required for tankers along a 90-mile route through Prince William Sound Three escort zones with variation in requirements based on operating environment and navigational safety risk
British Columbia	Yes	<ul style="list-style-type: none"> Escort requirements exist for tank vessels in the Strait of Georgia, Haro Strait, Boundary Pass, English Bay, and Strait of Juan de Fuca

Research Insights on Vessel Types



- Rulemaking will need to consider which vessel types should require escorts.

Vessel Types: Other Jurisdictions

Jurisdiction	Escort Requirement Applies To:		
	Tank Barge 	ATB 	Tanker 
California	✓	✓	✓
Massachusetts	✓	✓	
Prince William Sound			✓
British Columbia			✓

Vessel Type: Tank Barge

2019 Report of Vessel Traffic Safety¹⁴

Incidents WA/OR (2008 – 2017) :

- 45 incidents, most were groundings and allisions
- 26 were spills, most while moored
- 19 were non-spill incidents
 - Ecology found that a tug escort could have further reduced oil spill risk for 7 of them.

2021 Ecology Vessel Activity Report

Operating hours for Tug, Tug Tow, Barge Tow, Towing Vessel

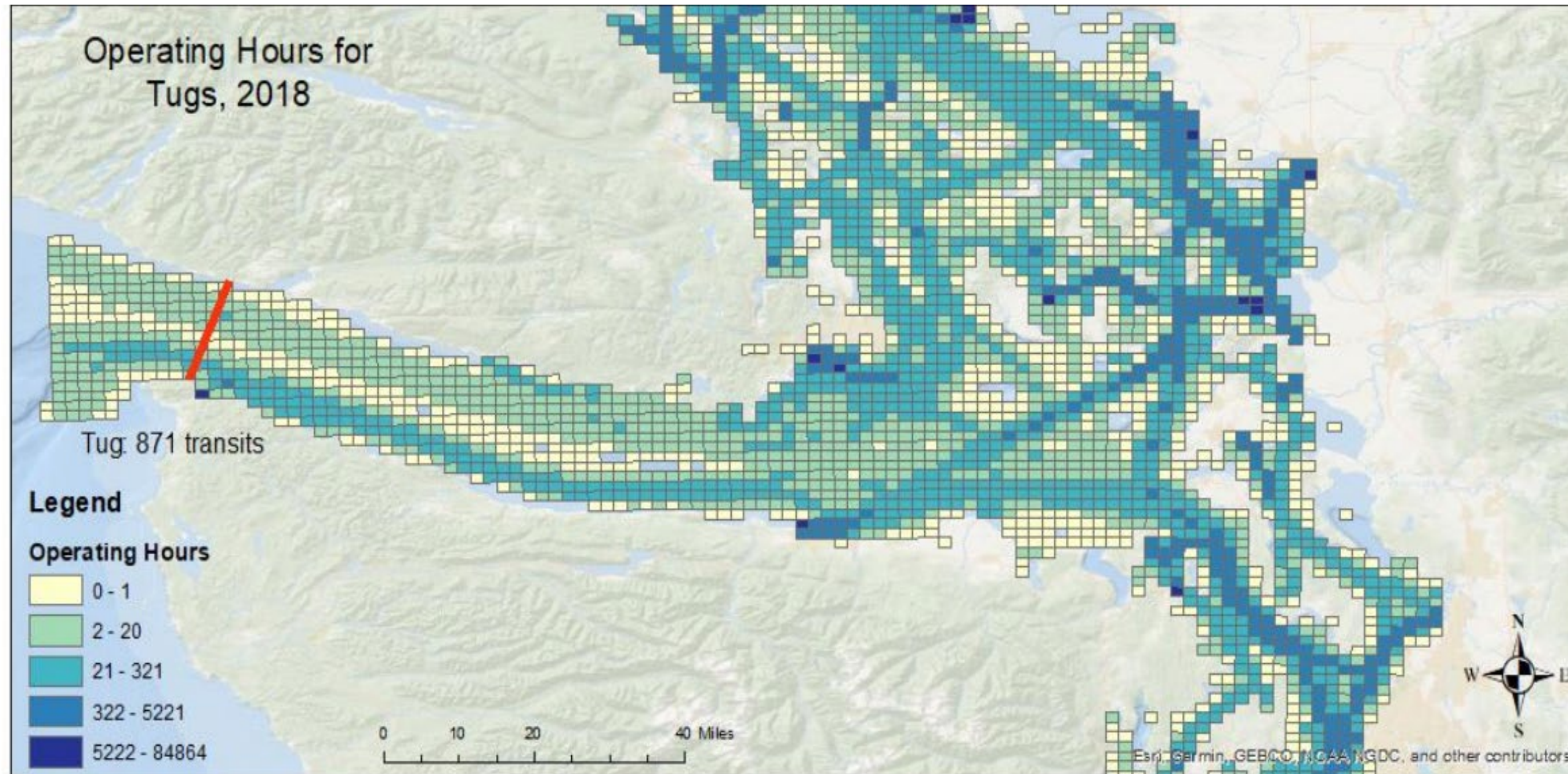


Figure 24: AIS Operating Hours for Tugs, 2018

Vessel Type: ATB

2019 Report of Vessel Traffic Safety¹⁴

Incidents WA/OR (2008 – 2017) :

- 20 incidents, most were near miss events and equipment failures
- 4 were oil spills while moored
- 16 were non-spill incidents
 - Ecology found that a tug escort could have further reduced oil spill risk for 4 of them.

2021 Ecology Vessel Activity Report

Operating hours for ATBs

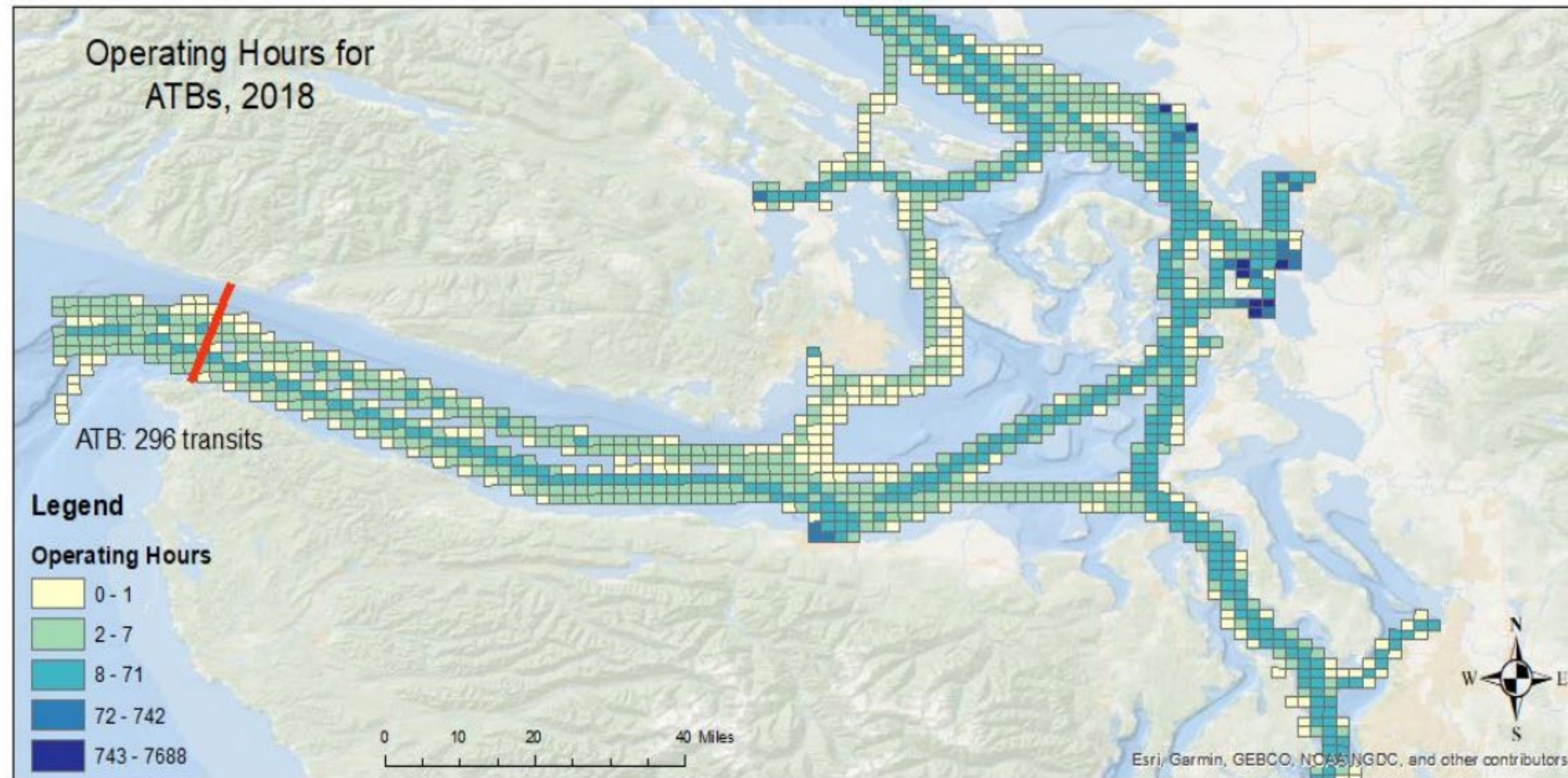


Figure 13: AIS Operating Hours for ATBs, 2018

2021 Ecology Vessel Activity Report

Operating hours for Chemical Tankers, Crude Tankers, Product Tankers, Liquefied Gas Tankers, and Asphalt Tankers

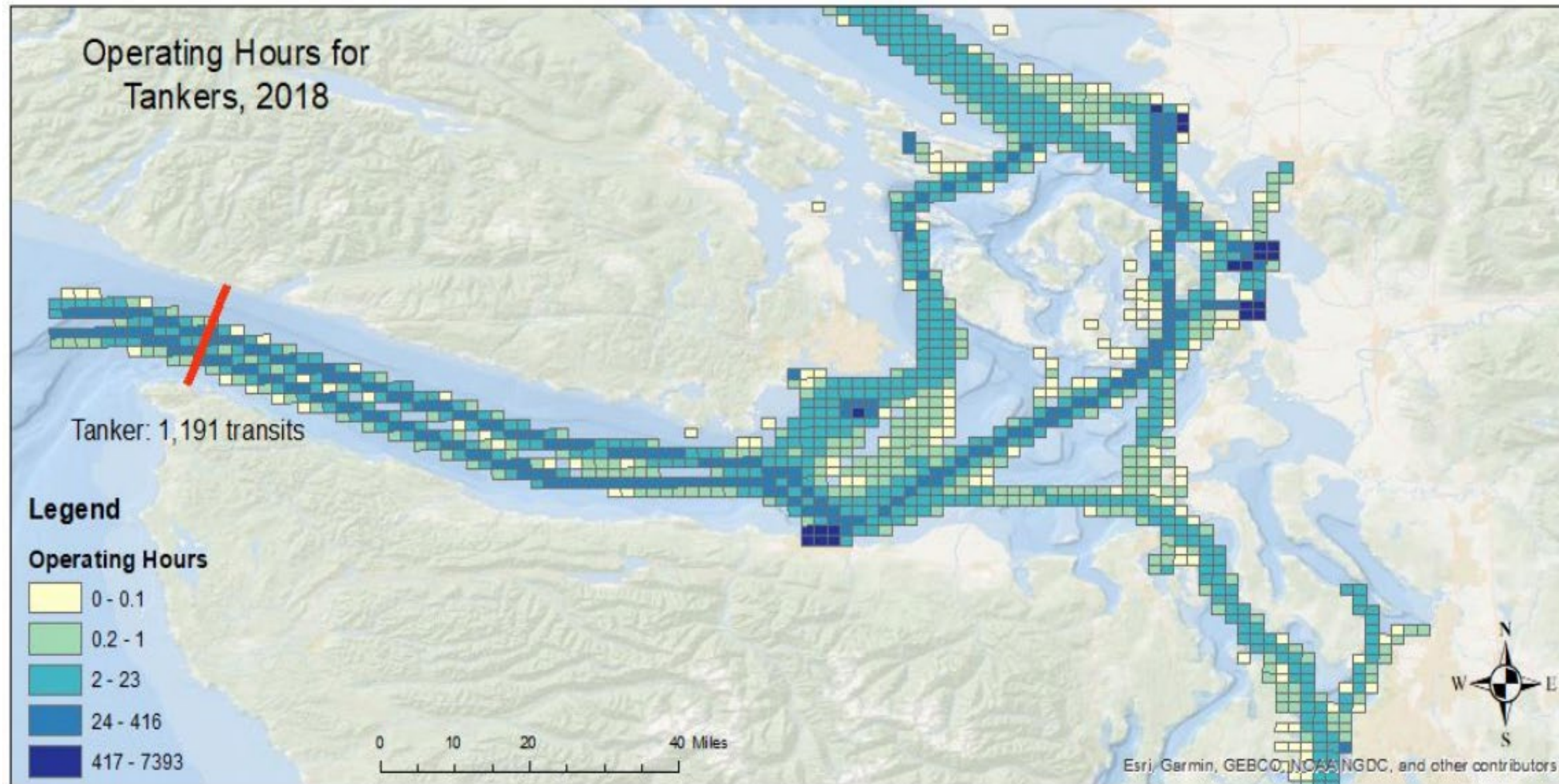


Figure 23: AIS Operating Hours for Tankers, 2018

Upcoming Rulemaking Workshops

Dates	Activity
February 2023	CR-101 – Rule Announcement
March 2023	SEPA Scoping Meeting
May 2023 – December 2024	Workshops with Tribes, Stakeholders, and Interested Parties
July 2025	CR-102, Propose Rule
December 2025	CR-103, Adopt Rule
January 2026	Rule Effective

Workshop 6 dates:

- February 6 - Stakeholders
- February 8 - Tribes

Save the Date:

**Second Informal SEPA Scoping Workshop:
Tuesday, March 5th from 1:30 – 3:00 PM**

More information and a registration link will be sent out via email shortly.

SEPA Point of Contact:

Haley Kennard, Tug Escort Environmental Analysis Coordinator
haley.kennard@ecy.wa.gov or (564) 233-5178



Other research considerations?

Thank you!

