



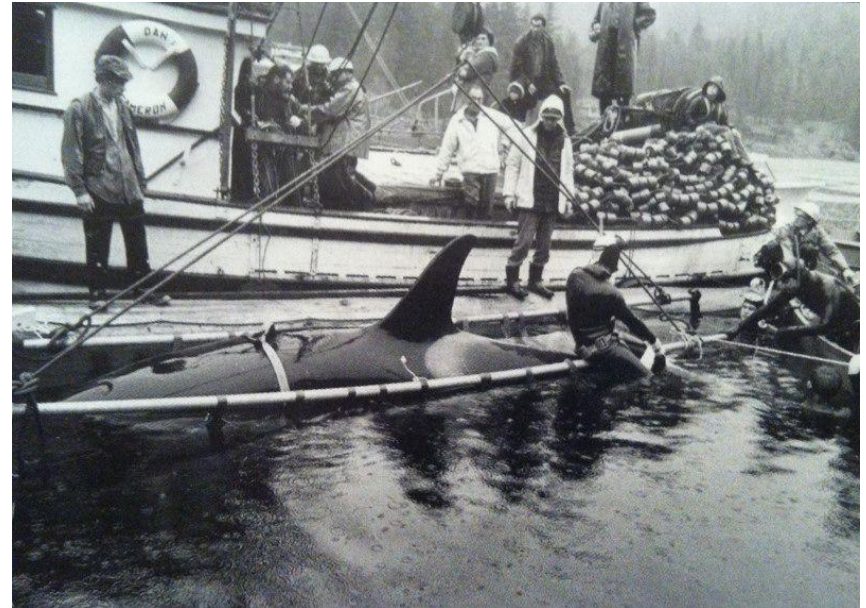
# Managing the Impacts of Fast Ferries on SRKW

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SMEA 519 Policy Analysis  
Spring 2024

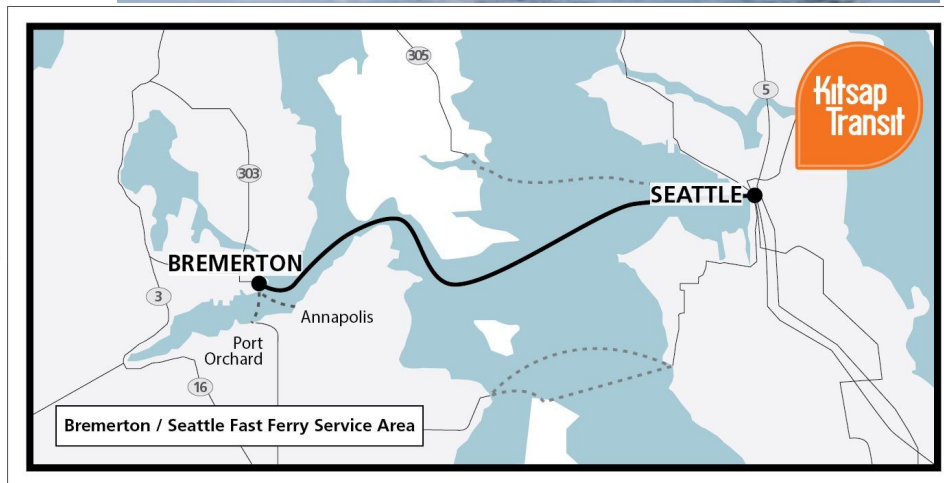


# Background

- SRKW are Critically Endangered
- Puget Sound is part of critical habitat for SRKW
- POFs (Passenger-Only Ferries) are increasing in fleet size and hours on water
- Vessel impacts are pollution, vessel strikes, vessel noise and vessel presence
- Multifaceted issues requiring interagency communication to tackle the gap



Route Name	Vashon-Seattle (King)	W.Seattle-Seattle (King)	Bremerton-Seattle (Kitsap)	Kingston-Seattle (Kitsap)	Southworth-Seattle (Kitsap)	Seattle-Victoria (Clipper)	Friday Harbor-Port Townsend (Puget Sound Express)
Schedule	(M-F) 12 trips total per day	(M-F) 34 trips total per day (S&S) 22 trips total per day	(M-F) 40 trips total per day (Sat) 7 trips total per day	(M-F) 12 trips total per day	(M-F) 16 trips total per day	Varied 1-2x a day; 632 total sailings for 2024	(M-S) 2 trips total per day April 26 – September 22 150 days
Min. Per Trip	22 minutes per trip	10-15 minutes per trip	30 minutes per trip	40 minutes per trip	26 minutes per trip	2 hrs 45 min	19 knots; 29 miles= 1.5 hrs
Holidays affecting sailings	12	7	4	4	4		0
Total Hours Per Year	1,095.6 hours per year	2,275.8 hours per year	5,504 hours per year	2,056 hours per year	1,781.9 hours per year	1,738 hours per year	450 hours per year



# Significance of problem

- Vessel hours are rising
  - ORCA Task Force raised concerns about vessel risks to SRKW
- USCG
  - Vessel, operator and passenger safety
- Cetacean Desk
  - Spatial awareness, housed in VTS
- NOAA
  - SRKW Recovery initiatives
- WDFW
  - State level enforcement on vessels and licensing requirements
- Quiet Sound
  - Voluntary speed reduction trials

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RECOMMENDATION: 49

STATUS: UNDERWAY

**Conduct a comprehensive environmental review and take action to minimize potential whale-strike risk and underwater noise posed by the growing number and distribution of fast ferries and water taxis in Southern Resident critical habitat.**

# Severity of Problem

## Vessel Noise

- Disruption in foraging
- Interferes with their communication signals
  - Including clicks, calls, and whistles
  - Inadequate nutrition
  - Consequences on immune function, growth, and development

## Vessel Presence

- Share their prey at the surface
  - causing nutritional deficits
- foraging activities
  - prolonged dive durations
  - slower ascents
  - reproductive stress

## Vessel Strikes

- Lacking data
- Two scenarios:
  - Witnessed
  - Unwitnessed

# Problem Statement

- **Stakeholders**

- Primary stakeholders: fast ferry operators, NOAA, USCG, WDFW, Cetacean Desk, Quiet Sound
- Secondary stakeholders: Pacific Whale Watch Association
- Tertiary stakeholders: advocacy groups, environmental NGOs

- **Goal**

- Reduce disturbance of SRKW from fast ferries operating in Puget Sound

- **Objectives**




- To improve vessel capacities to detect the presence of SRKW
- To prevent possible impact of vessels (noise, strikes) to SRWK



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# Analysis

	<b>Alt-1 Status Quo</b>	<ul style="list-style-type: none"><li>• Continued risk of vessel collision with SRKW</li><li>• Environmental Degradation</li><li>• Long-term ecological and economic impact</li></ul>	<ul style="list-style-type: none"><li>• Stability and predictability</li><li>• Additional time for designing implementation strategies</li></ul>
	<b>Alt-2 Technology</b>	<ul style="list-style-type: none"><li>• High initial costs for the equipment installation and maintenance</li><li>• Potential pushback from stakeholders</li></ul>	<ul style="list-style-type: none"><li>• Significant reduction in collision with killer whales</li><li>• Technology development after installment</li><li>• Data Monitoring</li><li>• Public Awareness</li></ul>
	<b>Alt-3 Voluntary Efforts</b>	<ul style="list-style-type: none"><li>• Potential Delays</li><li>• Pushback from commercial regulations since POFs are privately owned</li><li>• Inconsistency</li></ul>	<ul style="list-style-type: none"><li>• Increased accountability and engagement in committing to marine conservation</li><li>• Flexibility in implementation depending on circumstances</li><li>• Control and environmental stewardship</li><li>• Low Cost and Short time to implement</li><li>• Greater margin to further work in development</li></ul>



# Feasibility Tables

## Alternative 1 - Status Quo

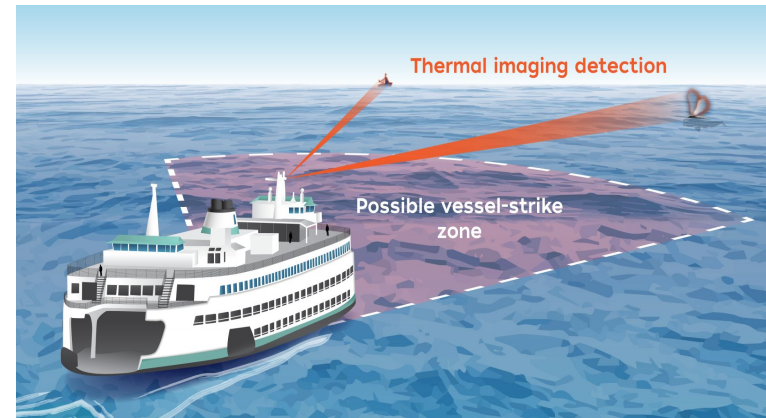
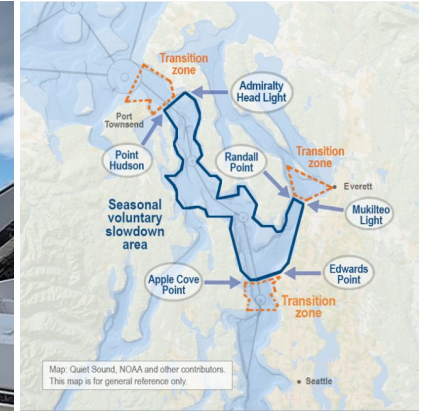
Stakeholder	Coded Position	Probability	Resources Available	Resources Rank	Feasibility Score
Kitsap Transit	1	0.8	0.5	0.7	0.28
King County Water Taxi	1	0.7	0.6	0.8	0.336
Puget Sound Express	1	0.6	0.4	0.5	0.12
NOAA	-1	0.9	0.8	0.9	-0.648
Cetacean Desk	-1	0.9	0.8	0.9	-0.648
WDFW	-1	0.7	0.6	0.7	-0.294
Quiet Sound	-1	0.8	0.9	0.8	-0.576
USCG	0	0.5	0.5	0.6	0
Total Feasibility					-1.43
Adjusted Feasibility					-0.715

## Alternative 2 - Technology

Total Feasibility	3.318
Adjusted Feasibility	1.659

## Alternative 3 - Voluntary Efforts

Total Feasibility	3.472
Adjusted Feasibility	1.736





# Conclusion & Recommendation

Policy	Impact on SRKW	Economic burden	Government expenditure	Political feasibility	Scoring*
Alt-1. Status Quo	3rd	1st	3rd	3rd	6 points
Alt-2 Technology	1st	3th	2nd	1st	9 points
<b>Alt-3 Voluntary</b>	2nd	2nd	1st	1st	<b>10 points</b>

\* Allocate 3 points to the 1st rank, 2 points to the 2nd rank, 1 point to the third rank

⇒ We recommend that **the Alt-3 be adopted and implemented.**

# Implementation & Monitoring

Alt-3 has the objective of encouraging POF operators to voluntary slow down in proximity of SRKW.

## Implementation:

- Providing **Incentives** to participate in a voluntary measure: Design program offering **rewards** for compliance fuel subsidies and priority docking privileges
- **Reduction in dockage fees** and **certification program** for compliance
- Quiet Sound Initiative: vision, monitoring tools, training. ([quietsound.org](https://quietsound.org))

## Monitoring:

- Vessel Participation, Underwater Noise, **Whale Presence**



*The slowdown trial is the first a voluntary effort of its kind in Puget Sound for large commercial vessels to reduce their speed and decrease underwater noise to protect the Southern Resident Killer Whales*

### QUIET SOUND LAUNCHES FIRST TRIAL LARGE VESSEL SLOWDOWN TO HELP PROTECT ENDANGERED WHALES IN PUGET SOUND

SEATTLE, WA (October 24, 2023) - *Quiet Sound*, a collaborative program among government agencies, the shipping industry, the U.S. military, tribal groups, and the scientific community working to reduce noise and physical impacts to endangered Southern Resident Killer whales from large commercial vessels, announces the launch of its first vessel slowdown trial, an initiative to address the impact of noise produced by large commercial vessels on the local Southern Resident Killer Whale population. The trial run takes place October 24 to December 22, 2023.

Every fall and winter the Southern Resident Killer Whales' ability to navigate, communicate, and hunt for salmon in Admiralty Inlet and north Puget Sound is threatened by interfering underwater noise pollution caused by passing vessels. The Quiet Sound slowdown trial encourages vessel operators to reduce their speed in designated transit areas by 30-50% when safe and



MARLA SMITH  
PHOTOGRAPHY

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