Quiet Sound Leadership Committee Meeting Summary

July 1, 2025

Meeting notes v. 7.14.25

Action Items & Decisions

Action Items	Who	Status
Connect with SWAG project (https://www.swag-project.org/)	Quiet Sound staff	
Respond to QS if interested in joining adaptive management committee	LC	
Articulate engagement strategy for the slowdown	Quiet Sound staff	

Meeting Notes

Welcome/Introductions

Rachel provided a land and water acknowledgement. Grace Ferrara (NOAA Fisheries) provided the Orca Moment. Rachel provided an overview of the agenda.

2024-25 Admiralty Inlet Slowdown Results

Sara provided an overview of the 2024-25 slowdown parameters and high-level results. This season's slowdown was in effect for 98 days, from October 6, 2024 through January 12, 2025, the longest slowdown to date. SRKW were present for at least 57 days, the most whale presence (by count and by percentage of the total slowdown) of any slowdown to date. Per piloted reported

data, 66% of vessels reduced their speeds, and per AIS-validated data, 56% of transits fully met suggested speed targets.

Maddie Matei presented the AIS-validated participation and acoustic results of the slowdown. After filtering for current, wind and small boats, the data available for analyses was 3% of the slowdown and baseline periods, which is a 1-2% increase from prior seasons. Tugs had considerably more traffic this season as compared to the 2023-24 season. With the exception of tugs who maintained the same speed in slowdown and baseline periods, all other vessel types reduced speed during the slowdown.

Median broadband noise was reduced by 0.5 dB across all vessel types. The biggest reduction was seen in the 1-10 kHz band. Noise was reduced in the SRKW echolocation and communication bands. The 14.5 knot group (car carriers, containers, cruise) reduced underwater noise by 2.6 dB. The 11-knot group (general cargo, tankers, bulkers) did reduce their speeds while the slowdown was in effect but less so during the period the hydrophone was in the water, and their transits were louder during the slowdown relative to baseline.

Our data continues to show that larger vessels have higher source levels (underwater radiated noise). For some vessel types, there is a positive relationship between speed over ground and source levels. These findings are consistent with previous years of data.

Year over year, the baseline period (mid-Jan to mid-Feb) is getting quieter and the slowdown is getting louder. This is consistent with results from ECHO's slowdown in Haro Strait/Boundary Pass. This could be due to factors unrelated to the slowdown, such as engine efficiency and emissions targets (CII and EEXI) coming into effect in early 2024, and tariffs.

The hydrophone recorded 62 SRKW acoustic events over 28 days. There were three days where acoustic events were recorded but no visual sightings. All transient killer whale acoustic events occurred at nighttime.

This season, AIS validation of participation occurred at the end of the slowdown, and Quiet Sound was not able to provide feedback to pilots regarding speed reduction while the slowdown was in effect. Participation of container and car carriers decreased relative to last season.

Questions/Comments:

- Q: How did we classify Tote? A: Vehicle carrier
- Comment: Sometimes WSF is in the charts and sometimes they are not. A: SMRU clarified that WSF is not included in the CDF analyses because they are not expected to slow
- Q: Is it possible that, because the baseline period is after the slowdown, some vessels are slowing as an after-effect of the slowdown? Would another baseline period be better? Answer: One possibility would be to wait a month and then measure March as the baseline (if permitting allowed). What you choose as a baseline makes a huge difference. ECHO is using an amalgamated baseline of multiple years' data to deal with shifting baselines. WWF is exploring slowdowns in Northern BC (SWAG project); they recently published a paper using statistical estimates to understand the baseline.
- Q: What are people doing in the absence of Quiet Sound's recommendation? Could we look at AIS data throughout the year to see what vessels are doing throughout the year? Are

there trends in vessel traffic that we're unaware of? If people are changing their behavior outside of our 'season', then we should reconsider the 'season'. A: Currently, our 'baseline' is recorded after the slowdown in January/February because the sound speed profile in Puget Sound is different between summer and winter.

2025-26 Slowdown Parameters

Sara presented the proposed parameters for the 2025-26 slowdown. Below is a summary of the final parameters and a brief rationale.

Parameter	LC Decision	Rationale
Geography	Retain the current geographic area of the slowdown and do not extend.	While SRKW utilize Central Puget Sound during the slowdown season, it's not clear whether speed targets would have a significant difference on vessel behavior.
Target vessels and speeds	Remove speed target for tugs running lite.	Most tug transits are below the suggested speed target at 8.5 knots and their speed did not change as a result of the recommendation from slowdown to baseline. It is not operationally feasible to determine which tug transits are running lite.
Dates	Begin monitoring for SRKW presence on September 2 and end the slowdown at 2359 PST on January 11, 2026.	SRKW trends indicate possible presence in September and unlikely presence the second half of January.
AIS validation	Perform bi-weekly AIS validation.	Sharing realized transit speeds with pilots and operations managers is important for meeting speed targets.
Engagement	Increase contact points with bulkers, tankers, general cargo companies and communicate results by vessel type.	Industry engagement has largely focused on car carriers, containers and cruise thus far. Target engagement to communicate more meaningfully with different vessel types.
Recognition	Increase participant recognition.	Reach the right people within companies and clearly articulate the recognition benefits to increase participation.
Goals	80% of transits reduce their speed. 65% of transits meet speed targets. Test the cost/benefit and feasibility of noise reduction estimation approaches.	Continue working towards achieving higher participation rates and refining monitoring approaches.

Geographic area: Quiet Sound recommended extending the geographic area of the slowdown south through Tacoma, given that many vessels are already meeting suggested speed targets. The Quiet Sound team had not yet discussed with mariners.

Leadership Committee members shared that the area south of Admiralty is a natural slowdown, where some vessels slow for wake reduction or in preparing to enter port. While extending the slowdown would cover more SRKW habitat, members expressed concern that speed reduction would not be due to Quiet Sound recommendations. It is sufficient to use AIS data to show how the Admiralty Inlet slowdown acts as a speedbump.

Tugs: Quiet Sound recommended removing the speed target for tugs running lite, given that most tug transits were below the speed target and their average speed, 8.5 knots, did not change from slowdown to baseline. While tugs represent a large number of transits, participation in the slowdown might not be the right intervention. The Leadership Committee agreed.

Dates: Quiet Sound recommended beginning monitoring for SRKW on September 2, 2025 and ending the slowdown at midnight on January 11, 2026. Though without deploying a hydrophone, the slowdown could extend through the end of January, SRKW presence trends do not support a longer slowdown. Leadership Committee members agreed.

AIS analysis: Quiet Sound recommended contracting with SMRU to perform bi-weekly AIS-validating to share with the Puget Sound Pilots and contracting with Orca Network for increased visual sighting support during the slowdown (but not outside of the slowdown period). The Leadership Committee agreed.

Communications and recognition: Quiet Sound recommended increasing contact points with bulkers, tankers and general cargo companies and communicating results by vessel type. The Leadership Committee agreed.

Quiet Sound recommended increasing recognition efforts by including participant names on websites, publishing a press release, and expanding the companies to which we provide fleet recognition to. Leadership Committee members noted that liner services should be a top priority for securing participation commitments, and environmental stewardship staff should be a key audience. Quiet Sound will use vessel databases to identify vessel owner/operator; identify operations and sustainability staff; clearly articulate the recognition benefits of participation; and increase Sara's LOE to 1.0 FTE.

Goals: Quiet Sound recommended the following goals for the slowdown: 80% of vessels reducing their speeds, 65% meeting suggesting speed targets, and testing the cost/benefit and feasibility of noise reduction estimation approaches. The Leadership Committee agreed.

Estimating noise reduction: Quiet Sound will not have funds available to deploy a hydrophone in 25-26. Given that, Maddie Matei presented three different approaches to noise reduction estimation: Machine learning, statistical sampling, and noise budgets.

Machine learning involves building a predictive model using available acoustic data, AIS, wind and current data. The benefits include: the ability to infer source levels based on vessel characteristics (i.e. propeller type) and the ability to produce CDF-like analyses from a hypothetical hydrophone location. The drawback is that it is more labor intensive. Statistical sampling involves using data

from previous seasons to interpolate and provide estimates. The benefit is the ability to produce CDF-like analyses, and the drawback is the small sample size, particularly for tankers and cruise. Noise budgets use estimates of source levels and their relationship to vessel speed. Benefits include the potential to accommodate longer or larger slowdowns, as they are location agnostic, but they would not yield CDF-like analyses.

The adaptive management team (and other interested Leadership Committee members) will meet to further discuss approaches for noise reduction estimation.

Attendees:

1. Rachel Aronson, Washington Maritime Blue
2. Sara Adams, Washington Maritime Blue
3. Gonzalo Banda-Cruz, Washington Maritime Blue
4. Maddie Matei, SMRU Consulting
5. Jason Wood, SMRU Consulting
6. Cassidy Fisher, Washington Maritime Blue
7. Randy Lumper, Northwest Indian Fisheries Commission
8. Adrienne Stutes, Washington State Ferries
9. Elise Adams, NOAA NMFS
10. Grace Ferrara, NOAA Fisheries
11. Meghan Reckmeyer, NWSA
12. Kathleen Hurley, Port of Seattle
13. Natalie Lowell, Makah Tribe
14. Miguela Marzolf, Seattle Aquarium
15. Nora Nickum, Seattle Aquarium
16. Mike Moore, Pacific Merchant Shipping Association
17. Jon Sloan, Port of Seattle
18. Nika Hoffman, Makah Tribe
19. Melanie Knight, ECHO