A Program of Washington Maritime Blue

Quiet Sound Advisory Committee (ORCAs) Meeting Summary

December 6, 2024

Meeting notes v. 12/19/24

Action Items & Decisions

Action Items	Who
Thermal Imaging: • Follow up with Scott Viers about the possibility to distribute the raw data to the public	Gonzalo Banda-Cruz
Thermal Imaging: • Follow up with USCG and WSF on potential sites for camera	Gonzalo Banda-Cruz
Desktop Study • Have one-on-one conversations with mariners and stakeholders to gather more detailed feedback on the proposed desktop study locations.	Sara Adams
Desktop Study • Share results of the vessel traffic analysis for the desktop study in Q1 2025.	Sara Adams

Meeting Notes

Welcome/Introductions

Following the welcome and introductions, Alle Brown-Law, Cascadia Consulting, provided a land and water acknowledgment, recognizing the significance of the Salish Sea and Southern Resident killer whales to Indigenous communities. Grace Ferrara from NOAA Fisheries then shared observations about increased orca presence in the area, which she attributed to a successful chum salmon return and the slowdown measures. She also highlighted a recent gathering of L Pod at Point Robinson. Brown-Law then gave an overview of the agenda and led the group in introductions and an icebreaker activity. (Answers to the icebreaker question can be found in the Appendix.)

Ground Rules & Community Agreements

Gonzalo Banda-Cruz, Quiet Sound, reminded the participants that the ORCAs Advisory Committee was formed to streamline cross-sectoral communication and provide efficient guidance to the Quiet Sound Leadership Committee & Team. This single advisory body replaces several previous groups, enabling more effective collaboration.

Agendas will be distributed before each meeting, and members are asked to be mindful of potential conflicts of interest. Meeting notes and membership information will be available on the Quiet Sound website. Members can request updates or redactions to any published information.

While ORCAs strives for consensus through discussion, it primarily functions as an advisory body to the Quiet Sound Leadership Committee, offering recommendations and insights.

Discussion: What would make you feel encouraged and that your perspective is welcomed?

- During the discussion on ground rules and community agreements, participants expressed a desire for a collaborative and inclusive environment. They emphasized the importance of assuming positive intent, embracing a "yes, and" approach, and welcoming questions and diverse perspectives.

- Attendees expressed enthusiasm for collaboration beyond the meeting and a focus on the best outcomes for the whales. The practice of providing discussion questions in advance was praised for enabling more informed participation. An attendee asked how they could contribute outside of the scheduled meetings- Quiet Sound team encourages reaching out to them directly.

Thermal Imaging Camera Project

Gonzalo provided an update on the SRKW Detections and Alerts to Mariners project, highlighting its focus on continuous whale detection. He then detailed the Thermal Imaging Pilot Project, outlining its goal to provide nighttime and foul-weather cetacean detection with public data access. Quiet Sound has chosen a technology provider after a competitive RFP process. The pilot

project, likely located at Admiralty Inlet, will run for about 6 months in 2025, and involves installing a land-based thermal imaging system with whale detection, using machine learning with a human in the loop to detect and verify whales, and the ability to send an alert to mariners through WRAS.

Quiet Sound would like the camera pilot to take place in Admiralty Inlet, as that's an area that has been identified as important for whales with high vessel traffic. Quiet Sound noted that this pilot may not overlap with the period of highest SRKW use of this area, but that the pilot will still provide valuable information about the cost/benefit of these systems. The ORCAs offered suggestions on potential thermal camera sites. Quiet Sound noted that protection from vandalism and theft, field of view, proximity to the ocean, and good power/internet options are important. The camera provider will analyze sites as part of their scope.

Gonzalo outlined the project timeline, noting that stakeholder consultations will begin in Q1 2025, installation in Q2 2025, and a report after about 6 months of operations. Gonzalo noted that the system may be able to distinguish between some types of cetaceans, although it is unlikely to distinguish between SRKW and Bigg's killer whales without contextual data.

The pilot project focuses on land-based thermal imaging rather than vessel-based due to some advantages of land-based systems for this pilot:

- More reliable connection to internet
- Active, WRAS-connected, land-based cameras in BC as a model
- Can use a simpler camera (no need to stabilize)

The discussion also addressed the limitations of Point Wilson Lighthouse for SRKW detection and the need for taller infrastructure closer to the water. Rachel highlighted the project's potential for broader adoption and expansion of thermal imaging technology for whale detection in the future.

Questions/Comments from ORCAs:

- Putting microphones in the air to detect the sound of whale blows could be a complement to this project.
- Providing access to the live feed to the thermal camera will help better train algorithms in the future. A: If we have a clear idea of what type of data the community wants to see from the cameras, that could be a potential to explore. In our experience so far, commercial providers of the thermal detection service do not want to share training data.
- Jessica Scott, Ocean Wise, noted that next year the WRAS app for mariners will include an ability to take in whale detections from the user in-app (currently a separate app/process).
- The ORCAs noted that different sites around the year would be best for peak SRKW detection. Quiet Sound noted that each time the camera moves, it will need to be re-calibrated, and suggested that the scope of the pilot program is best suited to one camera in one location.
- An ORCAs member suggested that in future competitive RFPs for thermal imaging services, data-sharing practices could be a scoring criterion for providers.

Voluntary Slowdown Update

Sara Adams provided an update on the Admiralty Inlet slowdown. The 2024-25 slowdown is the third season of the slowdown. Data indicate that most large commercial vessels are reducing their speeds and therefore their contribution to underwater noise in the SRKW critical habitat of Admiralty Inlet. The slowdown began on October 6, 2024 after SRKW were confirmed in the slowdown zone. The slowdown will remain in effect through January 12, 2025. The slowdown takes place in Admiralty Inlet and north Puget Sound. The hydrophone was deployed in Useless Bay to measure changes in underwater noise levels. Puget Sound Pilots provide bi-weekly data on vessel transit participation. AIS data from the Marine Exchange will be used to quantify the number of vessels that met suggested speed targets. Biweekly newsletters are sent to stakeholders regarding participation. The hydrophone will be retrieved in mid-February 2025, at which point the acoustic analyses will begin.

Data analysis will take place from March-May 2025. Quiet Sound and SMRU analyze noise levels overall, by vessel types, and by frequency range. Initial participation results will be shared with this group at the March 2025 meeting. As part of the adaptive management process, this group is encouraged to share suggestions or examples of creative ways to showcase success stories.

Questions/Comments:

- An ORCAs member noted that it would be possible to use Quiet Sound's existing data to identify specific outlier loud vessels (i.e. the loudest in their class), and identify why they are noisy and inform mitigation efforts. Quiet Sound agreed that is possible, but that type of effort is not currently funded.
- Ocean Wise noted that the slowdown will be visible on the map in a future iteration of WRAS.
- Quiet Sound could submit a paper to IMO as part of their current experience-building phase on underwater noise with information about the slowdown. That could reach some companies that only call Puget Sound sporadically.

Desktop Study: Potential Slowdown Locations

Sara Adams provided a first introduction to Quiet Sound's upcoming slowdown desktop study. The study aims to extend the habitat-improvement benefits of the Admiralty Inlet slowdown to other areas of SRKW critical habitat. The study includes a vessel traffic analysis using AIS data, historical whale presence analysis, and stakeholder engagement to understand the pros and cons, and feasibility, of potential new slowdown locations. Locations that were included in the original proposal include: Rosario Strait, Salmon Bank off San Juan Island, vessel traffic lanes between Port Angeles and Admiralty Inlet.

Initial feedback from ORCAs on specific locations:

1. Rosario Strait
    a. Traffic mix mostly tankers and tugs
    b. Lots of tugs running lite which may be able to adjust speeds
    c. Speeds already low

    d. Not a large distance
    e. Whales are here
2. Salmon Bank off San Juan Island
    a. Not much vessel traffic
    b. Whales are here

One participant noted that 1 and 2 could be combined due to similar whale use.

3. Vessel traffic lanes between Port Angeles and Admiralty Inlet

    a. Not much whale presence in the lanes, whales usually are north of the traffic lanes in this area. Would want to know how far the quiet effect of slower ships in the lanes reaches.

4. Other areas to consider:

    a. Edmonds to Commencement Bay (Puget Sound south of current slowdown).

Sara thanked the group for their input and noted that these locations are initial locations from the proposal and that the traffic analysis and the whale presence analysis might reveal different locations.

In the coming months, Quiet Sound will be consulting with tribes, mariners, conservation groups, ferries and other stakeholders. In the next meeting of ORCAs in March, we expect to share initial results of the analyses. Quiet Sound will use this information to develop a decision tool for our Leadership Committee to consider in April 2025.

Other Questions/Comments:

- Is vessel re-routing or lateral displacement in the eastern Strait of Juan de Fuca feasible for some vessel classes (e.g. could cruise ships or tugs go up Rosario if SRKWs are in Haro)? A: We will have to look at vessel traffic data.
- An operational mitigation we proposed early in the ECHO management of Haro Strait traffic was forming convoys. It's a great way to increase "quiet time" for SRKWs. For the whales, we should keep asking if this is possible and safe for some classes of vessels.
- Movement models for SRKWs that forecast out 3 days are on the horizon in Washington and implemented (but not operational) in Canada.
- The earlier you can provide mariners information about slowdowns, the better.

Updates from QS Staff and ORCAs Members

Quiet Sound staff highlighted a recent Seattle Times article on ship strikes and the indirect benefits of slowdown efforts. Mike Moore, Pacific Merchant Shipping Association, emphasized the importance of data-driven slowdown zones. Quiet Sound also noted recent coverage in National Geographic.

Scott Veirs, Orcasound, discussed their work on human-machine collaboration for whale and vessel monitoring and also offered to share vessel sound data for identifying noise levels.

The ECHO Program described the VFPA's awards and harbor dues discounts for quiet vessel design, and their Swiftsure Bank voluntary slowdown initiative, emphasizing the importance of communication and feedback.

Attendees:

1. Adam Seamans, Puget Sound Pilots
2. Adrienne Stutes, Washington State Ferries
3. Andrea Doyle, AltaGas/ALA Energy & ALA Renewable Energy
4. Alle Brown-Law, Facilitator, Cascadia Consulting Group
5. Alexis Morrigan, The Whale Museum
6. Carson Brock, Cascadia Consulting Group
7. David Bain, Chief Scientist, Orca Conservancy
8. Donna Spalding, CLIA
9. Drew Kerlee, Port Captain, Foss
10. Elise Adams, NOAA NMFS
11. Gonzalo Banda-Cruz, Quiet Sound Program Manager, Washington Maritime Blue
12. Grace Ferrara, SRKW Recovery Coordinator NOAA
13. Jason Jordan, NW Seaport Alliance
14. Jennifer McIntyre, ECHO Program, Vancouver Port Authority
15. Jess Scott, Ocean Wise
16. John Clauson, Kitsap Transit
17. John Robertson, USCG
18. Jostein Kalvoy, Puget Sound Pilots
19. Kathleen Hurley, Port of Seattle
20. Margaret Woodbridge, USCG
21. Marla Holt, NOAA
22. Meghan Reckmeyer, NW Sea Port Alliance
23. Mike Moore, Pacific Merchant Shipping Association
24. Peter Schrappen, American Waterways Operators
25. Puncham Judge, AtlaGas/ALA Energy
26. Rachel Aronson, Quiet Sound Program Director, Washington Maritime Blue
27. Ray Scott, Kitsap Transit
28. Regan Nelson, NRDC
29. Sara Adams, Quiet Sound Program Manager, Washington Maritime Blue
30. Scott Veirs, Beam Reach
31. Susan Berta, Orca Network
32. Todd Hass, Puget Sound Partnership
33. Will Kelly, Puget Sound Pilots

Appendix: compilation of responses to questions posed to the ORCAs Advisory Committee members.

Question 1: What is one thing you bring to ORCAs and one thing you hope to take away?

Members' contributions to ORCAs include:

- Building strong communication ties and partnerships.
- Additional information to share with Ocean Carriers to assist in voluntary measure implementation.
- Program and slowdown updates/learning from the ECHO Program.
- Expertise in collaborative policy development.
- Experience/expertise in collaborative policy development.
- A port perspective on vessel operation.
- A strong background in marine sciences, Quiet Sound history, and partnerships.
- Experience tracking whales.
- Insights from real-time acoustic monitoring.

Members' desired takeaways from ORCAs include:

- Facilitating broader knowledge sharing about the maritime sector and whales.
- Learning more from vessel operators and industry representatives.
- Building partnerships and sharing expertise on working and living in Puget Sound.
- Helping to bridge work between Canada and the US.
- New best practices information.
- Increased understanding of the co-benefits of vessel slowdown.
- New ideas/best practices for strengthening this work.
- Learning how to better communicate whale locations to those who want to protect them.
- Making contacts within the commercial shipping industry.
- Knowledge of the Quiet Sound strategic plan, budget, and other resources.

Question 2: What projects do you see yourself being involved with?

Members expressed interest in the following projects:

- Slowdown desktop study discussions.
- Data compilation.
- Acoustic tracking work.
- Thermal imaging pilot project.
- Providing confirmed orca and other cetacean sightings data.
- Boating regulation education.
- Providing a historical perspective of orca and other species presence, change in habitat use, etc. over the past several decades.