



Quiet Sound Leadership Committee Meeting Summary

October 17, 2023

Meeting notes v. 11/1/2023

Action Items & Decisions

Action Items	Who	Status
Put together language around suggested speeds for government vessels for Laird to review and share.	Rachel Aronson Caitlin O'Morchoe	Draft language shared with Laird.
Ask SMRU which vessels will be included in the noise budget.	Caitlin O'Morchoe	
Look into adding 'use of ultrasonic anti-fouling devices' onto the pilot survey for next year.	Caitlin O'Morchoe	
Send QS names and emails for people from your organization that you'd like to invite to the December 6 Quiet Sound briefing.	Leadership Committee members	
Share report from IMO Expert Workshop re: measures to reduce underwater noise and GHG emissions.	Regan Nelson	Regan shared the report.

Decisions

No major decisions at this meeting.



Acronyms

Acronyms: *QS* - Quiet Sound, *WG* - Work Group, *LC* - Leadership Committee, *SRKW* - Southern Resident Killer Whale, *WRAS* - Whale Report Alert System, *PPU* - Portable Pilot Unit, *VTS* - Vessel Traffic Service, *ECHO* - Enhancing Cetacean Habitat and Observation

Meeting Notes

Welcome/Introductions

- Land and water acknowledgement
- Orca Moment: Center for Whale Research census officially updated to 75 individuals. One individual may have died after the survey, so the total population may be at 74.
- Agenda overview and expectations

Project Updates

Caitlin O'Morchoe led updates on the major Quiet Sound projects currently underway.

- **Project: Improve the Whale Report Alert System.** Alex Mitchell from Ocean Wise gave updates on WRAS,
 - **Whale Report Alert System:** Desktop and mobile app that sends automatic alerts to mariners when within 10 nm of a whale detection. Only available to commercial mariners, free to use. Goal is to reduce the risk of strike and disturbance to whales. Whales 'detected' based on sightings (WhaleReport application, web form, calls), acoustic detection, partner sighting networks. Database checks to see if it was submitted in real time, and assess the confidence level of submission. Mariners receive alerts either as text, mobile app, desktop app. Vessel service operators can also push through their secured network. Since 2019, have grown to 550 users, 6,500 alerts/year in Washington.
 - **WRAS API operational.** API allows Ocean Wise to receive sightings/detections from partner organizations (such as Acartia.io and JASCO). First integration with JASCO hydrophone in Boundary Pass is complete, likely to go live with alerts in the next couple of weeks.
 - **Acartia integration in final phases.** Acartia.io data cooperative is a decentralized sightings data source based in WA, collates sightings from many sources. Whale Alert and Orca Network are big sources of sightings. Acartia is in the final phases of connecting to WRAS.
 - **Navsim WRAS integration to send alerts to PPU's instead of cell phones.** Currently pilots get WRAS alerts through their personal cell phones. Both Puget Sound Pilots and BC Coast Pilots use PPU's built and maintained by a Canadian company called Navsim. Navsim has agreed to cover the resources

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needed to develop a beta test for putting WRAS alerts directly into navigation charts via the PPU.

- **Marine Exchange notification possibilities.** The Marine Exchange and partners are in the early days of exploring how the Marine Exchange could use its current and future capabilities to share whale alerts to mariners in real time. Options range from text, email, the Marine Exchange AIS feed, or, potentially eventually, through AIS messaging to vessels. Hope that this will be transboundary.
- **WRAS Efficacy Study.** Ocean Wise looking into how WRAS impacts speed, course, and user research.
- **Questions and comments:**
 - Can WRAS distinguish SRKW from Biggs (transients)? A: Not yet, WRAS currently has one 'Orca' designation. Ocean Wise has explored the idea of having certified observers such as Orca Network that are allowed to mark ecotypes, but many reporters through WhaleReport are not skilled enough to distinguish ecotypes.
 - Comment: Pilots are not required to use PPUs. We'd want to confirm that PPUs are being used on enough transits to make it worthwhile. A: Caitlin also noted that PPUs will also need to be connected to the internet, so that's an additional barrier and cost. The LC noted that the additional cost of internet connection might be minor relative to the overall cost of the PPUs.
 - Q: Does WhaleReport receive infrared sightings from cameras? A: Not currently. Ocean Wise is talking to a person who supplies thermal imaging cameras and is hoping to integrate that type of technology in the future. They are interested in further information and ideas from Quiet Sound and the Leadership Committee.
 - The QS LC is very interested in the results of the WRAS efficacy study.
- **New project: Hydrophone feasibility study.** Caitlin O'Morchoe provided an update on the hydrophone feasibility study. It is funded by NFWF. QS is working with Ocean Wise and WA-based hydrophone operators, including the Orcasound hydrophone network.
 - The study seeks to understand the feasibility of current WA hydrophones and their ability to send live SRKW alerts (acoustic detections) into WRAS. It will include an assessment of hardware and software suitability; accuracy of AI- and human-based detections; hydrophone permit status. The study will culminate in a report (summarize options, hurdles, resources necessary); potentially create or disseminate the technical specifications for hydrophone compatibility with WRAS.
 - **Timeline:**
 - Nov 2023 → Jan 2024: Project set-up, meet with Ocean Wise, develop question guide and interview list.

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- Feb → April 2024: Info gathering (understanding the Who, What, Where of hydrophones, engage working groups, meet with hydrophone owners)
- May → July 2024: Hydrophone workshop (Ocean Wise, JASCO, WA hydrophone owners, QS WGs)
- Aug → Sep 2024: Final report due Sep 30 to NFWF

2023-2024 Voluntary Vessel Slowdown.

Caitlin O'Morchoe provided an update on the 2023-2024 Seasonal Voluntary Commercial Vessel Slowdown.

- **Slowdown is on.** SRKWs were confirmed on 12 October, so slowdown began at 0001 on 13 October. Thanks to everyone who relayed the message to their teams. Sara (graduate communications fellow) will be following up with the press release and ways to share. Early numbers from the first week indicate a 85% participation rate based on AIS data and a tidal model.
- Q: We don't specify speed targets for government vessels like ECHO does; are we planning on asking them to participate?. A: We didn't set a speed target for government vessels. Laird feels that Navy vessels may be open to it this year, and this year VTS has an open line of communications to the Navy. Navy surface vessels do use AIS (Navy unit and number). Rachel and Caitlin will put together language around suggested speeds for government vessels for Laird to review and share, and potentially in a future year we can set a speed target for these vessels before the slowdown season begins.
- Comments on the dynamic slowdown: LC members noted that the dynamic slowdown felt "abrupt" at times, and also noted that the launch felt "seamless" and that a lot of work is happening to get information into the right hands.
- Q: Is this still a trial? A: Caitlin reminded the group that at the last meeting, the LC decided to remove the "trial" designation. QS will continue to run and adaptively manage the slowdown until the science says otherwise and as funding allows.
- Q: Did QS survey vessels/companies regarding intention to participate? A: Last year QS tried a preseason survey and received very few responses and so decided that it wasn't the best use of resources this season. It may be something we can do again more meaningfully in the future as Quiet Sound's contact list grows. We will survey pilots post-transit to collect transit data.
- There's very limited data on ultrasonic antifouling devices and how prevalent they are, so it would be nice to ask the pilots to gather data on these devices.
- **SMRU scope:**
 - SMRU processes the vessel participation rates using AIS data from the Marine Exchange. Last year we used the SalishSeaCast NEMO tidal model. This year, we will compare the NOAA tidal model and the SalishSeaCast NEMO tidal model to see if one more clearly aligns with pilot-reported participation data.

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- SMRU will measure underwater noise levels during & after the slowdown, and identify SRKW vocalizations.
- New: QS is looking to conduct a “noise budget” analysis for the slowdown area to determine the relative amounts of underwater noise emitted from vessels in the area, including tugs. Last season, we saw a large amount of tug transits in the slowdown area.
- Q: Will noise budget include all vessels (i.e. recreational as well)? A: Caitlin to ask SMRU which vessels will be included in the noise budget.
- **Next steps:** We are still finalizing permits (now in the hands of USFWS) and hoping to deploy hydrophone in the water in early November. That would give us more data collection time than last year. In a few weeks, we'll start to prepare for vessel recognition.
- **QS is writing a proposal to assess new locations/times for a second vessel slowdown.** The Quiet Sound team is putting together a proposal to NFWF for a desktop study assessing new locations/times for a second vessel slowdown. We would be looking to do an assessment of vessel traffic, water body attributes (bathymetry, currents, wind speeds), SRKW migration patterns, and collection of stakeholder input in order to produce a recommendation to the LC for a second slowdown location by Fall 2025. Likely working with SMRU on this desktop study.
- Question: Could we also include a box for pilots to report on the use of ultrasonic anti-fouling devices? It would be good to know how prevalent these are; limited data on this currently. A: Caitlin to look into adding 'use of ultrasonic anti-fouling devices' onto the pilot survey for next year.
- Comment: Map should say "Appletree Cove Point" not Apple Cove Point. A: The NOAA maps for the area do call the projection of land we are referring to "Apple Cove Point" so we don't plan to change this graphic unless we hear that it's confusing for mariners. For clarification, Appletree Cove is the cove just south of Apple Cove Point.

Quiet Sound Budget Update for 2023-2024

Rachel Aronson provided an update on the Quiet Sound budget.

- The Quiet Sound team will share a draft budget for 2024-2025 during the January LC meeting. 2023-2024 QS Budget is balanced.
- Projected federal dollars have not come in yet (\$75k from NOAA, \$300,000k appropriations request from Sen Cantwell's office); work scoped to those dollars has been paused (such as scoping new slowdown locations- moved to 24-25 NFWF proposal for now)
- Running a slowdown co-benefits study with Starcrest Consulting is still a potential option in this fiscal year, but on hold until federal dollars come in.

Proposed Quiet Sound strategic plan process

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Kate Snider provided an overview of the proposed strategic planning process and timeline.

- **Goals of the strategic plan process:** Prioritize future QS projects and rationale. Clarify WGs role in program now/ future vs. what was originally expected 3 years ago. Articulate expectations moving forward for QS staff vs. WG leads vs. WG members. Confirm what WGs/ staff/ resourcing are needed to achieve these goals. Start defining science-based metrics of success, likely collaborate with ECHO.
- **Timeline**
 - Nov 2023 → Jan 2024: Internal QS/MB staff and Kate lay foundations, bring to the Jan LC meeting.
 - Feb → April 2024: Convene 2 LC meetings re: project priorities and WGs potential re-definition. First meeting with all LC members, then with the WGs.
 - May → July 2024: Draft strategic plan with project priorities and WG redefinition. Draft strategic plan also needs to be provided to the Puget Sound Partnership by June. Feeds into budget for the 2025-2027 bi-ennium.
 - Aug → Oct 2024: Finalize plan
- Comment: LC members would like an opportunity to bring ideas forward to inform the initial foundation for setting discussions, so that staff are not generating all the starting content. A: The goal for the January meeting is to have such discussions. Quiet Sound can provide an opportunity (such as a pre-meeting survey to LC members) to hear their priorities to inform the initial discussion.
- **Deliverables:** 2024-2027 Strategic Plan; Revised Operating Procedures

ECHO voluntary programs update

Kristin Trounce (ECHO) provided an update on ECHO's voluntary programs.

- **ECHO has 3 on-water voluntary initiatives.** 2 slowdowns in Haro Strait/Boundary Pass and Swiftsure Bank. ECHO's asks: 11 knots or less for gov., bulkers, tankers; 14.5 or less car carriers, container ships, cruise. 1 lateral displacement: Tugs are not asked to slow (due to slow speed anyway), but are asked to displace away from shoreline in Strait of Juan de Fuca. Dates: Swiftsure Bank/ Strait of Juan de Fuca: June 1 - October 31; Haro Strait/Boundary Pass dynamic end.
- **Pilot-reported participation** from June 1-Sep 29: 86% slowdown participation at Swiftsure Bank; 95% participation in lateral displacement; 89% slowdown participation in Haro Strait and Boundary Pass. Swiftsure Bank slowdown area (no pilots, international area) so participation is modeled speed through water analysis. Goal was 80% so great participation in non-piloted waters (communication via shipping companies, US/Canadian Coast Guard). Varied participation in car carriers and passenger vessels (ECHO conducts targeted outreach to shipping associations; sometimes to the vessel itself).
- **Conservation Agreement** signed in 2019 with a number of organizations. It formalized the role of the ECHO program over a five-year term, and continued

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interest in participation by shipping associations. The agreement expires in May 2024; ECHO is looking to renew, currently envisioning what it will look like (multi-year goal, and annual goals). Quiet Sound is named in one of their annual actions (Goal EE4: Advance international discussions on reducing vessel generated underwater noise.)

- June 2024 → May 2025: Discuss and coordinate temporal and spatial planning with WS to support alignment and reduce barriers to industry participation → June 2025 → May 2026 (same goal)
- Question: Why is QS coordination only written for two years, not five years? A: After two years, the relationship is operationalized and assumed to continue.

Cetacean Desk Update

LCDR Margaret Woodbridge, (U.S. Coast Guard) provided an update on the U.S. Coast Guard Cetacean Desk.

- **Cetacean Desk** created by the FY23 National Defense Authorization Act (4-year pilot program). It is hosted in the Puget Sound VTS.
 - Goal is to reduce risk of vessel strikes and mitigate underwater noise. In scope: large cetaceans, not in scope: dolphins, porpoises, pinnipeds.
 - Passed December 2022, gave the Coast Guard a year to stand up the program. From 2023-2027, the Desk will perform continuous evaluation and improvement. The team is treating it like it's evergreen, not just 4 years.
 - The desk is looking for ways to add value, use the Coast Guard authority to help existing programs; does not want to duplicate work efforts. Their team mapped stakeholders. Talked to Canadian MCTS Marine Mammal Desk, non-profits, government. Particularly interested in evaluating the sightings networks/data. QS and NOAA were helpful in shaping that understanding.
 - Puget Sound VTS: 5 watchstanders, AIS, radar and visual feeds looking at vessel traffic to ultimately establish predictability and order in waters.
 - Target audience includes vessels required to interact with VTS (not looking at direct engagement with recreational vessels, but are looking at how to communicate with those folks through other programs/networks).
- A key focus area for the Cetacean Desk is ensuring mariners know where whales are, and how to act appropriately.
 - Collecting location data, notifying VTS users (through WRAS alert). Using WRAS aligns with what Canada is doing, QS is doing, WA-state. For VTS user awareness and action, the team looked into whether it would be better to make whale location public or keep it targeted. Decided to keep it to a targeted audience for now. Cetacean Desk can help with no-cell-service sightings (channel notifications, reports through VTS) into WRAS.
 - Margaret started a VTS work group, helping watchstanders to get training (likely ECHO's Whales and Our Waters training). They are working to make this information more targeted to the Puget Sound.

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- Long-term Cetacean Desk opportunities
 - They would like to establish a central database of whale sightings by connecting sightings networks, developing and incorporating sensing networks, and increasing reporting participation. They are hoping to help get Navy participation in slowdowns and reporting sightings.
 - They are interested in better methods for communicating whale info to vessel operators. AIS messaging, API for electronic chart display and information systems (ECDIS), NOAA 11303 program – directed to develop a monitoring and mitigation program, starting with pilot program for North Atlantic right whales, but can expand. Working on a whale location model. An electronic map data layer showing slowdown zones, both voluntary and mandatory, a heatmap of whales detected or typical during that time of the year would be very useful, and possible.
 - Continuing to do education/outreach via Be WhaleWise. Harbor Safety standard of care publicizing whale safety measures.
- Question: What notification techniques and tools can the Desk support for vessels such as tugs and fast ferries whose use of WRAS hasn't been straightforward? A: It is not within the Cetacean Desk's scope to radio out to mariners to alert them of whales in the area. Fast ferries and tugs are all eligible for WRAS access.

December 6 Quiet Sound Event

Rachel Aronson provided an update on the December 6 Quiet Sound briefing event.

- Quiet Sound will host our live annual briefing to update VIPs, elected, and press re: Quiet Sound's progress. It will be held December 6, from 10-11am at the Seattle Aquarium (no virtual option). Quiet Sound will send an invitation soon.
- This year we will have NOAA Deputy Regional Administrator Scott Rumsey as a speaker, potentially someone else .
- **Request:** Please send QS names and emails for people from your organization that you'd like us to invite to the December Quiet Sound briefing.

Updates from LC members

- Kathleen Hurley (Port of Seattle): Almost done with contracting for the hydrophone work. Working with Pacific Marine Engineering Lab at NOAA, NW Fisheries Science Center. Port of Seattle will share with QS, there might be some overlap or connection with the QS hydrophone feasibility study.
- Mike Moore (PMSA) - Important to note total number of transits. Having a down year regarding arrivals of vessel numbers. Nice to see media attention on the whales this year.
- Regan Nelson (NRDC)

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- IMO Marine Environment Protection Committee revised guidelines went into effect in early October. When MEPC approved those guidelines, they also approved other actions to reduce underwater noise from commercial shipping. Three-year experience reporting phase, asking industry to report their experiences using the revised guidelines; can amend afterwards if necessary.
- Formation of an Expert Workshop approved that looks at measures to reduce underwater noise and also reduce GHGs. Workshop was held in September at IMO headquarters in London, led by Canada, co-chaired by the U.S. and France. Kevin Bartoy (WSF) attended, as well as BC Ferries. Workshop recordings and summary [available on the IMO website](#). Consultant put together a technical report on operational and maintenance, retrofitting measures that vessels will use to improve energy efficiency, then evaluated the impact of those measures on underwater noise. Results indicate over 100 measures that have a co-benefit of reducing noise and emissions. Final version of the report will come out shortly. Regan to share a report from Expert Workshop re: measures to reduce underwater noise and GHG emissions.
- Patrick Gallagher (Marine Exchange):
 - Hopefully will have an update regarding the AIS license for transmission this week.
 - Marine Exchange completed two tug studies for AWO. As Mike said, there's been a lag in arrivals, but tug activity is still happening quite a bit.
 - Provided data for ECHO's Starcrest emissions study. Marine Exchange evaluating software applications.
 - Puget Sound Harbor Safety meeting in November, more updates then.
- Todd Hass (PSP): Excited to see the strategic planning process get started. Reminder that PSP is the funder of the strategic planning process.
- Mike Moore (PMSA): Right now, seeing lots of new builds for ships and shipping containers as compared to in the past. Curious what technologies that could reduce underwater noise are being installed into these new ships.
 - Regan: Eco-action program in Vancouver Port Authority that aims to provide exactly those incentives, also grant programs for Ports to provide funding.
- Natalie Lowell (Makah Tribe)
 - Working with the Army Corps to dredge Neah Bay (prevents tugs from idling at low tides), Tribe received funding for large marine debris removal.



Attendees

- [Rachel Aronson](#), Quiet Sound Program Director, Washington Maritime Blue
- [Caitlin O'Morchoe](#), Quiet Sound Project Manager, Washington Maritime Blue
- [Sara Adams](#), Quiet Sound Graduate Fellow, Washington Maritime Blue
- [Kevin Bartoy](#), Chief Sustainability Officer, Washington State Ferries
- [Laird Hail](#), Puget Sound Vessel Traffic Services Director, US Coast Guard
- [LCDR Margaret Woodbridge](#), Cetacean Desk Program Manager, US Coast Guard Sector Puget Sound
- [Grace Ferrara](#), Natural Resource Management Specialist, NOAA
- [Patrick Gallagher](#), Executive Director of the Marine Exchange of Puget Sound
- [John Veentjer](#), Former Executive Director, Marine Exchange
- [Mike Moore](#), Pacific Merchant Shipping Association (PMSA)
- [Kate Snider](#), Principal and Founder of Floyd|Snider
- [Todd Hass](#), Special Assistant to the Director, Puget Sound Partnership
- [Nora Nickum](#), Senior Ocean Policy Manager at Seattle Aquarium
- [Kathleen Hurley](#), Senior Environmental Program Manager, Port of Seattle
- [Regan Nelson](#), Senior Advocate, Oceans Program, Marine Mammal Protection Project at the Natural Resources Defense Council
- [Natalie Lowell](#), Environmental Policy Analyst for the Makah Tribe
- [Ellie Mason](#), Hershman Fellow, Makah Tribe
- [Kevin Bartoy](#), Chief Sustainability Officer for WA State Ferries
- [Krista Trounce](#), ECHO, Port of Vancouver
- [Alex Mitchell](#), Ocean Wise