



SAN JUAN COUNTY
Marine Resources
Committee

MRC Annual Retreat
Meeting Agenda

Thursday, December 4th, 2025

9:00 AM – 2:15 PM

In-Person at UW Friday Harbor Labs*

620 University Rd, Friday Harbor, WA 98250

8:45 AM	Arrive/Meet and Greet
9:00 AM	Convene MRC Retreat- <i>Adam Parrott, MRC Chair</i>
9:05 AM	Member Updates and Public Comment
9:10 AM	“How-to” presentation on providing public comment as an MRC Member- <i>Olivia Graham</i>
9:20 AM	Discussion on fundraising planning and developing revenue strategies for MRC/Marine Program financial sustainability- <i>MRC Members</i>
10:35 AM	Remarks from new MRC Youth Members- <i>Lola Walker and Flora Vaught</i>
10:45 AM	Break
11:00 AM	MRC Work Planning for 2026- MRC Staff/Subcommittee Leads <i>Discussion of projects and work areas, Deadlines and key dates</i> • Plastic Free Salish Sea • Derelict Vessel Prevention Program • Eelgrass Protection • Oil Spill Prevention and Response Preparedness/ERTV • Marine Stewardship • Vessel Surveys/Benthic Habitat Project • Advisory Actions (OPALCO Project, etc)
12:15 PM	LUNCH
1:00 PM	Presentation- Environmental Effects of Marine Renewable Energy- <i>Lysel Garavelli and Debbie Rose, Pacific Northwest National Laboratory</i>
1:25 PM	Q and A/Discussion
1:35 PM	Presentation- Tidal Energy Environmental Impacts on Marine Mammals <i>Dr. Jason Wood, Principal Scientist & Deputy Director, SMRU Consulting</i>
2:00 PM	Q and A/Discussion
2:15 PM	Wrap and Adjourn Retreat

****While this is an in-person meeting, a Teams link is available for those who need a virtual option:***

[Join the meeting now](#)

Meeting ID: 224 695 057 192

Passcode: TY6MU3f3

MRC, CAG and LIO Committee Members in Attendance: Matt Arata, Charles Bookman, David Checkley, Kailey Genter, Brian Goodremont, Olivia Graham, Christina Koons, Adam Parrott, Lovel Pratt, Mike Ramsey, Karin Roemers-Kleven, Beth Tate, Sandy Wyllie-Echeverria, Joey Ullmann. Flora Vaught, Lola Walker

Ex-officio, County support staff and members of the public: Krista Bouchey, Gregg Dunphy, Jane Fuller, Lysel Garavelli, Russel Guerry, Katie Johnson, Kari Koski, Frances Robertson, Deborah Rose, Craig Smith, Kendra Smith, Taylor Smith, Daniel Vekved, Sam Whitridge, Jason Wood

8:45 AM Arrive/Meet and Greet, muffins & doughnuts!

9:05 AM Convene MRC Retreat *Adam Parrott, MRC Chair*

9:06 AM Member Updates and Public Comment
none

9:11 AM Introduction *Jane Fuller*

We have a meeting today with the Canadian group, Island Trust Council, we're reengaging our relationship going back to the 90's, new MOU. We'll bring up the issue of the ERTV. Sorry I can't be there in person for the Retreat.

And to put this meeting in county context. We'll have an extremely difficult budgetary time coming up in 2027, may need to let some staff go. Exploring other sources of revenue, updated Lodging Tax, working with Angela Broderick.

9:21 AM "How-to" presentation on providing public comment as an MRC Member *Olivia Graham*

I spoke in an October County Council meeting during the public comment period and I developed this guide with a few tips – it's a Word document, shared with MRC via email along with the pitch I gave advocating protection of marine resources in SJC. Must include name, role, island of residence, and complete in under 3 minutes

QUESTIONS:

Lovel: we should mention that we speak as an MRC member and we're not speaking on *behalf* of the MRC It's helpful not just to express concerns but to be clear about what you want council to do

Olivia: register before the meeting, no zoom option

David: announcement on county website, if you're meeting remotely, you call in at slated time

Jane: can also submit public comment online in a written document. You can be sharing news.

9:32 AM Discussion on revenue strategies for MRC/Marine Program financial sustainability
MRC Members

Sam: I sent out NW Straits Commission guidance on fundraising. We focused on this in the Local Forum

Kendra: we've been trying to make the budget work. I sent a memo about the transfer to cover the float for grants we have, that provided \$400K of relief to the current County fund. Also cut \$76K from our initial \$200K budget. We run two utilities, Water and Solid Waste. Some counties use those utilities to fund resiliency and climate change related work. On marine side with salmon recovery and LIO, a lot of freshwater work that ties in with clean water, so looking at migrating some things to Clean Water. Plan to go to Council to discuss revenue-generating strategies. e.g. Visitor tax, \$10/car would generate several million. In current legislature, can't tax vehicles going across county lines. But the MSA is a destination –a natural area which people come to visit,

could be an opportunity to bring in resources. We have some swag prepared with QR codes, donation landing page. Need more research about details around what service are we providing/what resource are we protecting – whether it's a donation or a tax

Beth: I vote to continue the conversation with PSP (Puget Sound Partnership). Affluent people needing to do mitigation are a resource; going through PSP decouples taking their money, and they need projects we have. maybe some of that money could even go toward salaries. The mitigation bank as it exists with PSP could be better.

Olivia: can you elaborate on what that process looks like?

Beth: through Army Corps of Engineers. Not all regulatory entities require the same things for mitigation. Federal system is streamlined with a calculator – pay the debt for the project they want. But historically that project was required to be local. If we can track that money we could use it, projects that were earmarked for PSP.

Kendra: now that calculator covers creosote piles and concrete armoring. We used that program for Jackson beach;

Lovel: curious about the scale of the funding that you think would be appropriate to be directed toward this region?

Beth: easily in the hundreds of thousands of dollars range, maybe in the millions depending on what's happening

Lovel: I'm hearing this could be the potential to pay for salaries. Funding an ES program rather than a project

Brian: can you explain the budget shortfall? Are some staff members depend on grant funding ending in 2026.?

Kendra: the ES dept. funds two utilities. The last few years we receive about \$200K from County and \$400K from float/reimbursement-based grants. We need to sign new grants to support the staff. We've cut that initial \$200 from County down to \$124. County Current needs to fund Emergency, Parks, and ES. Other departments (Sherriff, Courts, etc.) take most of County current money. We pay into the County for things like facilities, IT, liability insurance, etc. that our grants can't always cover. We need to be tight within our core of ES, don't want to be subject to reorganization. We are utility managers for environmental services (clean water and solid waste).

Beth: to say that an action effectively mitigates an impact, needs to have a value. What's the value of this program?

Lovel: you can calculate that in terms of quantifying environmental services.

Kendra: maybe an MOU with PSP to find and facilitate projects, like a service provider model. With an MOU they could pay into the mitigation bank or they're paying us to facilitate mitigation. Particularly with road-related projects

Kari: so environmental services (and salaries therein) are mitigation? Not just protection as mitigation

Olivia: considering some other initiatives Kendra mentioned, I'm in favor of some kind of ecotourism tax benefiting the MSA. What would it take for us to implement that at a County level?

Kendra: County has a limited ability to tax, but a fee is where it's at. Taxes go to a vote

Adam: we have a 'donate' QR code. Could we work with local tourism businesses? could direct donated funds?

Frankie: Discussion of raising funds needs to be for the County's environmental program, can't be for the MRC

Kari: we want a hybridized system with non-grant funding and that's why fees are such a good model. Look at what the MSA brings to the County and how this body and staff are needed to support it. Need a sustainable funding source of our own. People will keep coming here to enjoy the things we're trying to protect. It's a partnership. Need to work on crafting this message. We asked for a white paper looking at this

Adam: we're talking about putting a new process in place and funding needed by 2027. What's our time frame?

Kendra: we'll be going through the budget process again in December 2026 for 2027. Over the coming year, I'll

be moving whatever I can into the Clean Water utility. Up until 2027 we're covered. The way the Clean Water utility runs is that there are multiple year projects in the CIP, revenues are collected throughout the year from all over the County to fund those projects. Slightly different formula/rates for each island.

Charles: the legislature has a history of approving county-optional excise taxes (provides a few examples). In addition to the utility approach, we should consider the idea of a county-option excise tax

Brian: to fund program, the most seamless way would be to work with existing funds from an entity like PSP. I collect fees from guests every day. I feel like a tax collector and distributor for the State and my employees. I collect a conservation fee from my guests, needs to be communicated correctly. If you work with legislature to propose a fee for visitors, you'll get pushback if you don't come with support from business owners. We talk about why we collect the fee and where we're giving it. If you create a subcommittee, need to have some business owners on it.

Kendra: I hope we can find a way not to burden the business owners. Which is why we're interested in something like the discovery pass. Get them in Anacortes.

Brian: interesting to think about how people travel here and how to increase the audience. We currently have a slow decrease in visitors. And more day-trippers

Adam: it would be beneficial to create a subcommittee where we consistently talk about these things. Kendra would be on it, could have more focused discussions on this.

MOTION: Mike moves to create a sustainable funding for marine resource stewardship subcommittee

Olivia seconds. All in favor. Subcommittee members: Mike, Olivia, Charles, Adam, Flora, Christina

Kari: community members who aren't MRC members can be invited

Adam: we need to take Brian's advice and invite some business owners

Kailey: maybe we can also get someone from the tourism board (Kendra is on it)

Sam: we met with Jason Lim and he said their staff was interested in presenting about this at our January meeting.

10:39 AM Remarks from new MRC Youth Members- Lola Walker and Flora Vaught

Flora: I'm excited to be part of the MRC, I respect and appreciate the ocean environment. I want to use MRC as an opportunity to get more involved in conservation. I'm president of FHHS eco-club. I want to bring the experience of attending these meetings to my peers, e.g. I'm excited to share Olivia's advice on giving public comment.

Kendra: when you speak, your voice is worth 5x what an adult's voice would mean in that Council

Flora: a lot of people in the eco club are interested in going into politics

Lola: I'm a senior at OIHS, I'm a sailor and as such, have an obligation to help another sailor in distress. I see the ocean as being that sailor in distress. This is such a crucial decade for climate change research. I want to get my generation more excited to be involved in marine conservation. Also excited to learn from all the smart people here

10:43 AM Break

11:01 AM **MRC Work Planning for 2026**

MRC Staff/Subcommittee

Leads

• Plastic Free Salish Sea

Karin Roemers-Kleven

Beach clean ups in fall and spring, additional sessions with local hosts (review some past hosts). We hope for more involvement each year. More members need to come to these gatherings and give more input. For the Spring Great Island Clean Up (GICU), removed 3K lbs. of litter, many plastic nurdles.

Katie Fleming with County sanitation dept invited Ridwell program to come to SJC. Ridwell sorts and distributes material to different organizations. Sell plastic to trex decking

ACTION ITEM: Karin and Katie will make sure to distribute information about Ridwell

- Derelict Vessel Prevention Program

Kari Koski

Our subcommittee needs strengthening, more help with vessel and shore patrols. Prevention requires routine patrols, contact with boat-owners, follow-up and communication. Can aim toward voluntary improvement. Because of prevention, the number of vessels getting removed is going down. Still a lot of boat issues in Beaverton Cove. Need more eyes on shore. I'd like to do more talks in boat/yacht clubs. Get donations. Then also want input in an end-of-life-campaign for boats, honor people and their boats and their stories and figure out the best plan.

The stories are social components, lost jobs, health issues – folks pushed to live or store items in boats. The region has grown and there isn't room at the marinas or for moorage. Can't get boat lifted out at yard without insurance.

David: any discussions among boat-sellers and makers about incorporating end-of-life costs into sale of a boat? In Europe where there's no longer any landfilling of composite plastics, there are models for that.

Matt: our company is on the statewide DNR contract and once a week there's an issue with a boat. Standard call is for a 1980's 30-40' foot sailboat, also some that get washed up on shore

Frankie: the Puget Sound State of the Sound report just came out and they specifically called out the Derelict Vessel program with DNR. Talked about the legislation passed a couple cycles ago that increased capacity

ACTION: Frankie will send that report around

- Eelgrass Protection

Olivia Graham

Our eelgrass stressors project with partners in CD, FHL, County ES etc. we're gathering data to look at various water quality parameters, quarterly dive blitzes, all of last July and next July will entail fieldwork for that project. Frankie's aerial surveys to quantify boating pressure has been a big part of that.

Frankie: I sent an email last week to try to coordinate a weekend for a land-based vessel count blitz. Lopez has the most sites, we could rope in more help there. Need that off-season data. You can submit data from the kobo app

-brief discussion about possibility of marine program having their own boat and value of a fee-for-service model

Kari: our boat trips fulfill multiple goals – boat counts, eyes on shoreline issues, counting buoys, etc. It would be nice to have a flag to show that we're a government entity. Aerial vessel flights are once a month; Derelict Vessel (DV) surveys are a couple times a month between September and June.

Olivia: about land-based vessel counts – might that be a good initiative for the eco club?

Flora: yes, we have community service hours to fulfill

Sam: reminder that we have this one-time grant from NOAA and we selected kelp and eelgrass for the topic, that's an effort we'll need to start planning/talking about. That becomes available January 1

Sandy: my lab is teamed up with the Coast Salish Youth Coalition and Northwest Indian College to do an eelgrass restoration in Picnic Cove. We did a ceremonial transplant. And another project tracking boat traffic using AIS.

- * Outreach and Education

the primary activity in last year was getting MRC youth members. It can absorb the DEI and the whale-advocation

- Oil Spill Prevention and Response Preparedness/ERTV

Sam: this subcommittee doesn't correspond with a grant deliverable but it's been an important issue. There was a lot of momentum; Local Forum 2023 focus and presented at ad-hoc transboundary caucus, Cindy Wolf

was instrumental. Jay Inslee wrote a letter about this before leaving office. This year it's been hard due to budget issues and US Canadian relations. Lovel and Sam met with Jane and discussed continuing to advocate for an ERTV

Lovel: want to continue to advocate for an ERTV as a common interest between SJC and Islands Trust Council. Canada is talking about a new pipeline to Northern BC, and yet another new expansion of the current pipeline in the next 2-5 years (after last expansion in May 2024). This is a significant increase in tanker traffic coming directly into WA state to deliver to refineries here. Previous models have identified increased risk, but there's a clustering of ships coming out – ships anchoring (mostly at Vendovi island) while laden, those circumstances were never part of the model. The concern is that ships only have escorts when they're laden

David: It sounds like there may be renewed justification for having a better analysis with those considerations -more discussion between Lovel and David about strategies for follow-up from Ecology's problematic report. The MRC has already been involved.

Lovel: In 2026, Ecology will make a rule update to the oil spill contingency planning. Last year, they did a BAP (Best Achievable Protection) process; Frankie sent in a request for them to include plans for deterring whales from a major oil spill. I submitted comments advocating for more response for non-floating oils. Now with friction between Canada and the US we need to be even more prepared to deal with response on our shores. -discussion of some details for requirements for oil-spill response timing

Charles: Island Oil Spill Association is solid right now, they might be helpful in getting Ecology to come to the table

Frankie: I'm on the board of IOSA. They view themselves as an emergency-response organization, not prevention.

ACTION: Sam will set up an oil spill subcommittee meeting in January, they will select a chair at that meeting

* Marine Vessels and Infrastructure,

some discussion of what we mean by cruise ships – when they may be able to tie up in FH. Understanding of jurisdictions and recommendations to Council. Bright lights, noise, etc. This ties back to MSA use and vessel impacts

Lovel: will MRC be hosting a marine managers' workshop? Seems like a good place to bring this up as an impact

Brian: I see both sides, they bring revenue into County. But don't want them anchoring and destroying habitat. They don't tie up in FH because there's a sound ordinance in town of FH that prevents them from running generators at night. The message shouldn't be that we don't want them, it should be a message about how to treat sensitive areas and communicate expectations. There's an opportunity to for a dialogue.

David: we need discussion of policy and regulations around this, that's what the subcommittee will be about

Kendra: and just imagine if each of those visitors were paying for the privilege to enjoy this special place.

Lovel: and if they were told to anchor in designated areas in Vendovi...?

Brian: that would be an impact to economy in FH

Christina: when was the last MMW? Is there funding for that?

Frankie: there was one in 2020 and 2023

Sam: it could fit within the MRC engagement piece. The Marine managers workshop includes agency folks, Tribes ... it depends on what the topic is. The last one was specific to identifying an deprioritizing recommendations for the MSA. We'll have local organizations, County planners, Land Bank

Olivia: for the eelgrass HSIL, we built in funds for a collaborative workshop, planning for spring 2027. We'll have data to share.

SUBCOMMITTEE MAKE UP

PFSS: Karin, Adam, Sandy, Lola (interested in coordinating something with OIHS)

Derelict Vessel: Adam, Christina, Matt, David

Seagrass protection: Olivia, Beth, Christina, Sandy, Karin, Joey

Oil Spill Prevention: Lovel, Christina, Matt, Craig, David, Brian, Charles

Marine Vessels and Infrastructure (mooring buoys, cruise ships): Joey, Frankie, Kari, Olivia

Outreach and Ed (includes DEI): Sandy, Kailey, Beth, Adam

Sustainable Funding: Adam, Mike, Charles, Oliva, Flora, Brian

ACTION: Kari will send some interested non-members information about subcommittees

Olivia: comment for PFSS, Olivia made a contact with the Port about creating a sign at Jackson Beach about using poop bags to pick up garbage. But they want MRC to pay for it

ACTION item: we'll talk about this at the next PFSS meeting, Karin will loop Olivia into the next meeting,

Question: Kailey asks if Ballet school would host a beach clean-up, is there any liability involved?

Frankie: we offer release waivers

Brian: you should contact your insurance, see if you're covered for an event outside of studio and if not waivers

12:19 PM LUNCH

1:18 PM Presentation- Environmental Effects of Marine Renewable Energy *Lysel Garavelli, Debbie Rose*

Lysel: Introduction with reasons to develop marine energy, the amount of energy that can be produced from waves, currents, and thermal/salinity gradient. <https://tethys-engineering.pnnl.gov/photo-library>

OES -Environmental, international initiative for Energy Agency-Ocean energy systems, since 2010. The State of Science report, 2024 – summarized knowledge on environmental effects of using marine energy, includes the best available science and most current synthesis of understanding,

<https://tethys.pnnl.gov/publications/state-of-the-science-2024> Environmental effects of marine energy = stressors, or marine energy devices and systems that may cause harm to receptors. Receptors = marine animals, habitats, and ecosystem processes

Some examples of stressor-receptor interactions, with a green-to-red dial showing level of risk:

-collision risk, concern is the risk of rotating turbine blades causing injury to mammals, sea birds, fish etc.

We know Turbines rotate slowly with flow, no observations of these animals colliding with the device

-Underwater Noise, concern is disruption of marine animal navigation and communication, causing physical harm

We know so far, noise from these devices falls below the US Set action levels set in guidance by NOAA and BOEM

-Electromagnetic fields, concern that EMF's from subsea cables may affect animals that use natural electric or magnetic fields for orientation, navigation, or hunting. BUT we know impacts from these developments are low

-Changes in habitats; Concern that physical changes in benthic and pelagic habitats due to the presence of marine energy devices can lead to habitat loss, changes in species communication and more non-native species. BUT we can be careful with siting and small footprints

-Entanglement, concern that large animals can get tangled in mooring lines or underwater cables etc.

There will be no free ends of lines, no slack, and no entanglement incidences have been recorded yet

-Changes in Oceanographic systems; Concern for changes in flow or wave patterns, sediment transport, water quality, etc., BUT we know that individual devices don't create changes larger than natural processes

-Displacement; Concern that attraction, avoidance or exclusion triggered by animal's response (to large arrays) could affect populations. BUT so far there are no large arrays operating

Debbie: we know about effects of these devices, most environmental risk from these devices is pretty low.

Strategies for educating and publicizing this information, making science accessible and talking about the Platform, <https://openei.org/wiki/PRIMRE>. And Tethys including documents, <https://tethys.pnnl.gov/risk-retirement-evidence-bases>. and interactive tool, <https://tethys.pnnl.gov/monitoring-datasets-discoverability-matrix>; <https://tethys.pnnl.gov/management-measures>, <https://tethys.pnnl.gov/guidance-documents>

Connects stressor-receptor interactions, <https://tethys.pnnl.gov/mre-brochure> developed for new regulators etc., 25 pages instead of the several hundred page state of science report. Educational materials

<https://tethys.pnnl.gov/marine-renewable-energy-educational-resources> including a coloring book

Many international partners have contributed to this work

1:26 PM Q and A/Discussion

Charles: you said you have a meta database of monitoring databases. What percentage to you think that covers vs. the private utilities that aren't contributing?

Debbie: for everything that's funded by US, posting monitoring info in Primre is a requirement.

Karin: you mentioned that some devices are small, how big are they really?

Lysel: some could be 1-2 meters, but some much larger. Depends on the technology, that's generally.

Kari: we haven't been clear locally on the scale, still not sure what a small array vs. large array? And what's viable, how many small components needed in an array to generate usable energy

Lysel: it depends on the utility. There may be one device for an ocean salvation buoy, but for a remote community or island needing power would be 10 or more devices

Mike: Solar or wind arrays need to be near a substation to be effective. Is that true for tidal generation as well?

Lysel: no could have a wave-generating device to a buoy no substation needed but yes if it going to a coast

Jane: noticing the risk dial, it seemed the majority of them are pretty low. How is that risk measured?

Lysel: for example with collisions, we just don't know what happens to fish post collision

Debbie: for some risks that we have more information about, we can set the dial lower

Russel: thank you for your presentation. The PNNL Risk Register and PNNL teams' assistance with the OPALCO project was extremely helpful. If OPALCO continues, we look forward to the continued PNNL engagement

1:36 PM Presentation- Tidal Energy Environmental Impacts on Marine Mammals *Jason Wood*

Introduction with overview of SMRU consulting, established in 2006 as a commercial offshoot of the University of St. Andrews and the Sea Mammal Research Unit. It's an overlap of academia, industry and regulatory agencies. Assess and mitigate effects on marine mammals. Jason was an author on the OES: 2024 State of the Science Report, highlighted the paradigm of Stressor-receptor interactions, noise effects on marine mammals. Jason defines terminology displacement/avoidance/evasion – a scale from large distance to small. Displacement can mean displacement from an area, may be important from a tidal energy point of view. These units are usually in some kind of constriction or channel – that's an issue for the larger scale. That's defined as larger than six units (for which each unit could be larger than 10m). Avoidance can mean mid scale, on order of some numbers of meters, and evasion is last inches – moving to avoid a blade. Displacement hasn't been an issue yet because largest size array in Scotland now is 4-5 tidal turbines, that may be the biggest scale of projects yet. No evidence of displacement

What I'll talk about most here is avoidance. But as for collision, it's very hard to monitor in these particular sites.

- Marine Current Turbines (SeaGen) in Northern Ireland, it's a monopile with arms that went out to the side with a turbine on each that could be deployed. SMRU and PNNL studied the SeaGen project and asked, how

do harbor seals use this tidal inlet in both space and time and how does that behavior overlap with turbine ops? Does seal behavior change around the turbine and how does that change collision risk? Methods: tagged seals. A tidal system is a dynamic environment. Jason shows plots with movement in three different turbine velocities (low, moderate and high speeds). Figures show that seals swim against tidal currents. Seals foraging upstream of turbines need to swim faster against the current. In terms of depths, they do a classic U-shaped dive and once turbines are in place seals avoid it up to 400m, There's lateral avoidance. There's a paper about this in Marine Pollution Bulletin.

- SNOPUD, study partners were UW and PNNL. Proposed a 10m turbine in Admiralty Inlet. Learned a lot about harbor porpoise use, used their clicks to track their location. But there are a lot of porpoises in Admiralty Inlet. Used data to measure collision risk, and coordinated with marine mammal observations

- FORCE, partnered with Acadia University in Nova Scotia. Took a long time for turbine to be deployed; data collected until after the turbine broke. It's a challenging site. Jason shows timing of porpoise detection. As tides flowed in, numbers of porpoise detections max out because of noise of sediment movement in high flows. Shows 50% reduction in detection of porpoises while turbines were running. Summary: tidal energy has potential because it's so predictable. The state of the science report from 2024 is a good review of collision risk. Hard to understand collision risk without understanding the temporal and spatial information about the animals

2:01 PM Q and A/Discussion

Frankie: I've seen porpoises in Admiralty inlet doing behaviors I've never seen in other places. Sometimes more than 500 porpoises. Jason's point is that there are so many specific specialized variables

Kari: diet can depend on time of year, tidal period – could be fish, squid, worms, etc.

Craig: repeatedly been said there are no records of collision, but how would you record a collision?

Jason: with fish it'll be hard. With large mammals, evidence of blunt force trauma may be easier. There hasn't been such evidence around these sites in seals or porpoises

Joey: inherent tradeoff between collision and avoidance?

Jason: these companies are prioritizing not having collisions, but some noise could be a good thing so animals are aware it's there then some avoidance inevitable

-more discussion of avoidance vs. collision; some discussion of avoidance with respect to SRKW,

Kari: if there are multiple units required, then there's avoidance at multiple sites adding up to displacement

Beth: can talk yet about BPM's? can we say, this type of device will provide minimal noise or scour, etc.?

Jason: no, we're not there yet, different habitats require different designs, disparate array of engineering solutions

-brief discussion about upcoming OPALCO proposed project, Jason hasn't been consulting on it

Brian: is this going to be an ongoing topic for MRC meetings? We already wrote a letter in August stating there wasn't enough information for us to take a position, are we trying to get enough data now to take one?

David: OPALCO has now submitted their application, the comment period on that is over.

Jason: there is more to the permitting process after this one

Lovel: given that this is a pilot project, is this the appropriate location for that?

Jason: if we made enough local tidal energy to get rid of the Snake River dam, which would be a bigger benefit? That's part of one argument for doing this pilot in the Salish Sea

2:25 PM Wrap and Adjourn Retreat