MARINE RESOURCES ADVISORY COUNCIL

Meeting summary
July 16, 2024
1:30 p.m. to 3:30 p.m.
Virtual meeting

Meeting attendance and objectives
The Washington Marine Resources Advisory Council (MRAC) held its 30th meeting online and by conference call on July 16, 2024. The meeting was facilitated by Angie Thomson, Thomson Strategic Consulting.

Members in attendance: Cynthia Catton (Department of Natural Resources), Meg Chadsey (WA Sea Grant), Bill Dewey (Taylor Shellfish Farms), Aaron Dufault (Washington Department of Fish and Wildlife, alternate), Rod Fleck (Washington Coast Marine Advisory Committee), Jennifer Hennessey (Washington State Department of Ecology, alternate), Senator Keith Wagoner (Washington State Senate),

MRAC members not in attendance: Martha Kongsgaard (Chair), Brian Allison (Puget Sound Commercial Crab Association), Mike Cassinelli (Recreational Fishing), Tom Davis (Washington State Farm Bureau), Norm Dicks (Van Ness Feldman LLP), Representative Joe Fitzgibbon (Washington State House of Representatives), Tony Floor (Northwest Marine Trade Association), Lucas Hart (Puget Sound Partnership), Dennis McLerran (Puget Sound Partnership), Erika McPhee-Shaw (Western Washington University), Mindy Roberts (Washington Environmental Council), Senator Jesse Salomon (Washington State Senate), Marilyn Sheldon (Coastal Shellfish Grower), Douglas Steding (Association of Washington Business), Laura Watson (Washington State Department of Ecology)

Other participants: Simone Alin (National Oceanic and Atmospheric Association, Jessica Cross (Pacific Northwest National Laboratory), Richard Feely (National Oceanic and Atmospheric Association), Kirsten Feifel (Puget Sound Partnership), Micah Horwith (Washington Department of Ecology), Terrie Klinger (Washington Ocean Acidification Center), Natalie Lowell (Makah Tribe), Tommy Moore (Northwest Indians Fisheries Commission), Peter Murchie (Environmental Protection Agency), Talia Neiman (True Wind Collaborative, MRAC facilitation team), Jan Newton (Washington Ocean Acidification Center), Candace Penn (Squaxin Island Tribe), Liz Perotti (National Oceanic and Atmospheric Association), Angie Thomson (Thomson Strategic Consulting, MRAC facilitation team), Brad Warren (Global Ocean Health), Paul Williams (Suquamish Tribe)

Meeting objectives:

- Share updates on recent ocean acidification efforts.
- Hean an update on the state's Climate Resilience Plan and policy landscape.
- Discuss planning and anticipated MRAC budget requests for the 2025-2027 biennium.

Welcome and introductions
Angie Thomson, MRAC facilitation team, welcomed participants and reviewed the meeting agenda.

Recent ocean acidification happenings

Participants shared out on recent ocean acidification activities. Highlights include:

- Simone Alin, National Oceanic and Atmospheric Association, recently published two papers in collaboration with other MRAC participants covering ocean acidification in Puget Sound, analyzed by depth and seasonality.
    - Alin, S.R., J.A. Newton, R.A. Feely, S. Siedlecki, and D. Greeley. 2024. Seasonality and response of ocean acidification and hypoxia to major environmental anomalies in the southern Salish Sea, North America (2014–2018). Biogeosciences, bgs-2023-181.
    - Alin, S.R., J.A. Newton, R.A. Feely, B. Curry, D. Greeley, J. Herndon, and M. Warner. 2024. A decade-long cruise time-series (2008–2018) of physical and biogeochemical conditions in the southern Salish Sea, North America. Earth System Science Data, https://doi.org/10.5194/essd-16-837-2024.

- Jan Newton, Washington Ocean Acidification Center, provided two updates:
    - The Washington Ocean Acidification Center (WOAC) completed a successful research cruise in July 2024, emphasizing the importance of time series datasets.
    - The WOAC biology post-doctorate published the second of two papers.

- Micah Horwith, Washington Department of Ecology, shared the following updates:
    - The Department of Ecology continues listening to shellfish farmers by attending the Pacific Coast Shellfish Growers Association (PCSGA) meetings to improve connections with private industry.
    - The Department of Ecology is adding a new bottom depth to their ocean acidification sampling.
        - Bill Dewey, Taylor Shellfish Farms, asked if these deep samples could help understand why geoduck resources have not recovered as expected.
            - Paul Williams, Suquamish Tribe, will connect with Aaron Dufault, Washington Department of Fish and Wildlife, Micah Horwith, and others to explore this topic further.
    - The recent Olympic Coast Ocean Acidification Sentinel Site (OASeS) symposium held on May 14-16 in Forks, WA, included Tribal perspectives and activities underway to reduce carbon dioxide. The meeting also focused on connecting with Tribal communities.

- Natalie Lowell, Makah Tribe, noted the Makah Tribe presented at the OASeS conference regarding food sovereignty. The Tribe is also part of the National Planning Circle for Ocean Acidification, organized by the Ocean Acidification (OA) Alliance.

- Tommy Moore, Northwest Indians Fisheries Commission, shared that the International Pacific Halibut Commission did not have funding to collect chemical data in their most recent study.
    - A brief discussion addressing the lack of funding did not identify any solutions, as it is difficult for a state entity to fund an international organization.

- Jody Toft, Puget Sound Restoration Fund, noted two recent papers that report on works conducted with support from the Puget Sound Restoration Fund (PSRF).

    - Predictable patterns within the kelp forest can indirectly create temporary refugia from ocean acidification, as shown here.
    - The second paper will be shared with the group once published.

- Meg Chadsey, Washington Sea Grant, shared the following updates:
    - Washington Sea Grant is currently working on a project called Blue Carbon Green Fields, which focuses on finding ways to use seaweed for upland applications. This five-year project, funded by the U.S. Department of Agriculture (USDA), aims to build on the work started by the PSRF in collaboration with Chuckanut Shellfish Farm and others. The goal is to repurpose nuisance seaweed removed from shellfish farms as a soil supplement for agriculture. Additional information can be found here.
    - The marine carbon dioxide removal (mCDR) Nodes meeting, which occurred on April 30, was intended to bring the community together around mCDR removal. Please contact Meg Chadsey at mchadsey@uw.edu if you want to learn more or join the Pacific Northwest mCDR Node.

- Cynthia Catton, Department of Natural Resources, provided the following updates:
    - The Acidification Nearshore Monitoring Network (ANeMoNe) is adding a new intertidal station in the Snohomish watershed.
    - The Department of Natural Resources is working with the Squaxin Island Tribe to identify kelp forest as a priority habitat, with an open house planned for July 30.

- Brad Warren, Global Ocean Health, noted Global Ocean Health is holding workshops to discuss the requirements for designing a system for mCDR management.

- Ebb Carbon is submitting a permit application for an mCDR project, which will soon be available for review.

- Rod Fleck, Washington Coastal Marine Advisory Committee, shared the most recent Washington Coastal Marine Advisory Committee (WCMAC) meeting focused on developing a recommendation on the Gridworks offshore wind report.

Climate resilience plan
Participants heard an update on Washington's Climate Resilience Strategy. Highlights include:

- Jennifer Hennessey, Department of Ecology, reported on Ecology's work to update the state's climate resiliency strategy to better address future climate change impacts. The aim is to establish an ongoing process that anticipates, prepares for, and adapts to climate changes while minimizing negative impacts on our natural systems, infrastructure, and communities. Agencies across the state are working together more cohesively to identify significant gaps, collaborate, and prioritize strategies that help manage risks, safeguard communities, and protect public assets and investments.

- Existing programs to help address the impacts of climate change include, but are not limited to, ensuring agricultural communities are more drought-resistant, combating wildfires, and implementing nature-based solutions on shorelines that experience erosion and rising sea levels.

- Ten agencies and the University of Washington's Climate Impact Group began their work in the fall of 2023. The group developed a series of proposed strategies and actions throughout the winter of 2023 and into the spring of 2024. Outreach targeted frontline communities and Tribes to gather early input before it was opened to the public for comment in June. Public comments and changes needed to the strategy are currently in analysis before finalizing the strategy at the end of September. The proposed strategies and actions will include an implementation pathway and decision package proposed by the state agencies.

- There are nine (9) key strategies:
    - Coordinate ongoing implementation of the State of Climate Resilience Strategy.
    - Plan for, respond to, and recover from climate-driven hazards and emergencies.
    - Support Tribes, local governments, and communities with technical assistance, guidance, and best practices to advance and implement policies and actions that reduce climate risks.
    - Support the vitality and viability of working lands under a changing climate through research, technical assistance, and incentives.
    - Reduce existing sources of pollution that exacerbate climate impacts.
    - Implement innovative water conservation and management initiatives to ensure reliable and sufficient water for people, ecosystems, wildlife, and fish.
    - Maintain the level of service and improve the performance of critical infrastructure and state assets to minimize vulnerability to climate impacts, including retrofits or removals.
    - Plan, build, and invest in public infrastructure that considers future climate conditions, increases equity, and makes use of nature-based solutions.
    - Improve land management and restoration practices to help ecosystems, habitats, and species adapt to changing climate conditions.

- Additional strategy sections include:
    - A high-level synthesis of climate hazards facing Washington.
    - Draft vision, goals, and priorities.
    - Collective resilience recommendations, which cover broader social and economic conditions that help communities be more resilient.
    - Accountability, implementation, and measuring progress.
    - Examples of ongoing state work.

- The proposed governance structure and implementation is a multitier approach:
    - The Climate Resilience sub-cabinet will consist of agency leadership to guide and direct climate resilience work at the state level.
    - The agency staff team will guide the implementation and reporting of identified actions and serve as agency representatives during future update processes.
    - The Department of Ecology core staffing team will support the implementation of actions, compile metrics and reporting details, lead engagement, and coordinate and lead future strategy updates.

- Peter Murchie, Environmental Protection Agency, asked if strategies will include working with federal agencies, such as the Environmental Protection Agency (EPA),

Federal Emergency Management Agency (FEMA), and the National Oceanic and Atmospheric Association (NOAA).
    - Jennifer Hennessey confirmed that agencies may be included in their relevant work areas, such as NOAA and rising sea levels. As the group looks to implement these strategies, there is room to identify what federal engagement may look like.

- Angie Thomson suggested discussing how the Climate Resilience Strategy integrates with ocean acidification funding and actions at a future MRAC meeting.

Ocean Acidification priorities and budget discussion
Participants reviewed and discussed the anticipated MRAC budget requests for the 2025-2027 biennium. Highlights include:

- Angie Thomson gave the group an overview of the funding requests agencies regularly make every two years. MRAC identifies science priorities and ocean acidification issues that do not receive agency funding and submits requests to the Governor's office on behalf of the organization. Angie Thomson then went through previous funding and requests carried forward.

- When needed, the MRAC makes individual requests for biological response studies that are not included in the carry-forward requests.

- Over the last several months, the facilitation team has worked with MRAC members to identify potential funding needs to be included in the funding request. These needs include:
    - Additional capacity for WOAC operations (was requested last biennium and may now be carry-forward status).
    - Biological response experiments.
    - Plankton and ocean acidification.
    - Communication support: developing communication materials.
    - Communication support: Translating science data and findings to policymakers and stakeholders.

- The group discussed the needs and agreed on the following:
    - Ongoing capacity for WOAC operations is needed.
    - Biological response experiments are needed.
    - Plankton and ocean acidification are already covered in current funding for biological response and monitor funding. Additional funding is not needed.
    - Communication support: developing communication materials will be expanded to include broad outreach and engagement. This request will be incorporated into the Department of Ecology's funding request.

- Jennifer Hennessy shared that the Office of Financial Management (OFM) has decreased funding this biennium, which the MRAC should consider when drafting budget request decision packages. More information can be found here.

Next steps
1. The in-person MRAC meeting at Ecology's Lacey office will be scheduled for Fall 2024.

2. A small group discussion will be scheduled to review the communication budget request.
3. Work will begin on the 2025-2027 budget request decision packages.