



Meeting summary

April 23, 2018 9:00 a.m. to 11:30 a.m.

Conference call

Meeting attendance and objectives

The Washington Marine Resources Advisory Council (MRAC) held its 16th meeting by phone on April 23, 2018. The meeting was facilitated by Martha Kongsgaard, MRAC Chair, and Angie Thomson of EnviroIssues.

Members in attendance: Martha Kongsgaard (MRAC Chair), Rich Childers (Washington Department of Fish and Wildlife), Bill Dewey (Taylor Shellfish Farms), Kirsten Feifel (Department of Natural Resources), Gus Gates (Surfrider), Libby Jewett (National Oceanic and Atmospheric Administration), Kendra Lee Kirk (representing the Honorable Dave Hayes, Washington State House of Representatives), Nan McKay (Northwest Straits Commission), Erica McPhee-Shaw (Western Washington University), Mindy Roberts (Washington Environmental Council)

MRAC members not in attendance: Brian Allison (Puget Sound Commercial Crab Association), Maia Bellon (Washington Department of Ecology), Mike Cassinelli (City of Ilwaco), Mark Clark (Conservation Commission), Garret Dalan (Washington Coast Marine Advisory Committee), Tom Davis (Washington State Farm Bureau), Tony Floor (Northwest Marine Trade Association), Lisa Graumlich (University of Washington), Jay Manning (Puget Sound Partnership), Senator Kevin Ranker (Washington State Senate), Dick Sheldon (Coastal Shellfish Grower), Douglas Steding (Association of Washington Business), Terry Williams (Tulalip Tribes of Washington)

Other participants: Simone Alin (NOAA), Linda Anderson-Carnahan (EPA Region 10), Nyssa Baechler (UW School of Marine and Environmental Affairs), Liz Banse (Resource Media), Meg Chadsey (Washington Sea Grant), Shallin Busch (National Oceanic and Atmospheric Administration), Mike Cheng (Makah Tribe), Jim Colden (Newport, OR), Richard Feely (National Oceanic and Atmospheric Administration), Lynn Holbrook (Department of Fish and Wildlife), Stephanie Jaeger (King County), Katie Keil (UW School of Marine and Environmental Affairs), Terrie Klinger (Washington Ocean Acidification Center), Angie Morales (Vulcan), Jan Newton (Washington Ocean Acidification Center), Betsy Peabody (Puget Sound Restoration Fund), Samantha Siedlecki (University of Connecticut), Linda Steinmann (Office of Financial Management), Brad Warren (Global Ocean Health), Paul Williams (Suquamish Tribe)

Meeting objectives:

- Share updates on recent ocean acidification activities and events
- Hear an update on the Blue Ribbon Panel Addendum outreach, preview future outreach and communications coordination efforts
- Hear an update on the natural resources managers survey
- Discuss potential budget requests for 2019-2021 biennium
- Review proposed MRAC workplan for remaining 2017-2019

Welcome and introductions

Martha Kongsgaard, MRAC Chair, and Angie Thomson, EnviroIssues, opened the meeting and thanked council members for their participation.

Recent OA activities and research:

Martha Kongsgaard invited participants to share updates on recent ocean acidification happenings related to ocean acidification.

- Ocean acidification was a highlighted topic at the Salish Sea Ecosystem Conference that took place April 4-6. SeaDoc's 2018 Salish Sea Science Prize was awarded to Dr. Nina Bednarsik for her contributions to ocean acidification research.
- The Nordic Heritage Museum will open the week of May 5, and the Ambassador of Norway will be in attendance. While in Seattle, the Ambassador will speak about ocean acidification and the installation of a pH sensor on a local sailboat.
- The [2018 Puget Sound Day on the Hill](#) will take place in Washington D.C. on May 23. The following week is Oceans Week in D.C. which will have panels on ocean acidification. Martha Kongsgaard encouraged MRAC members to consider attending.
- Shallin Busch and Libby Jewett, NOAA, introduced a new website, the [Ocean Acidification Information Exchange](#). The website is a collaborative forum for those who are interested and work in ocean acidification to share ideas and resources. Since its launch in February, over 400 members have joined, and many are participating in new conversations across disciplines.
- Libby Jewett informed the MRAC that NOAA is planning to refresh their ocean acidification plan soon. The plan was last updated in 2010, so they intend to capture progress and new knowledge in the coming update.
- The West Coast Ocean Acidification Monitoring Task Force met recently to discuss and identify precisely where ocean acidification is being measured or monitored. This information will be useful for expanding the monitoring network into the future.

- Jan Newton, WOAC, shared that a link to the ocean acidification monitoring inventory will be added to the NANOOS website. Jan also noted the University of Washington has a new research vessel, the *Rachel Carson*, whose maiden voyage was an ocean acidification cruise. Participants are encouraged to reach out to Jan if interested in participating in the July or September cruise.
- Dick Feely, NOAA, reported on recent findings that anthropogenic carbon dioxide on the West Coast penetrates through the entire water column. Participants agreed this new knowledge should be incorporated into future messaging.
- Erica McPhee-Shaw, Western Washington University, recently spoke with the mayor of Anacortes about climate impacts and ocean acidification. Erica explained it was helpful to have the BRP Addendum [slide deck](#) and talking points to speak about the state of ocean acidification in Washington.
- Erica also shared that funding was secured for Western Washington University's new Marine, Coastal and Watershed Sciences program. Erica is working to incorporate ocean acidification content into new classes.
- Bill Dewey, Taylor Shellfish, reported on a recent international opportunity to speak about ocean acidification in the Pacific Northwest to the Society for Experimental Biology in London. Bill also noted an oyster grower from Maine convened the Shellfish Growers Climate Coalition in collaboration with The Nature Conservancy. This group aims to raise awareness of the impacts of climate change on the shellfish industry to the public and lawmakers. On Earth Day, Taylor Shellfish contributed 10% of their "Let's Give a Shuck for the Earth" event sales to the Shellfish Growers Climate Coalition to raise awareness of the group and support their efforts.
- Cristina Figueroa-Kaminsky, Washington Department of Ecology, reported that Ecology is working to obtain gridded carbon dioxide output data to incorporate into the Salish Sea Model. They are working collaboratively with Ecology's Air Quality program.
- Rich Childers, Washington Department of Fish and Wildlife, is going to reach out to MRAC members to form a work group to examine existing seaweed regulations. This effort is in support of Action 6.3.7 in the BRP Addendum.

BRP Refresh Addendum outreach & future outreach coordination efforts

Liz Banse, Resource Media, shared an update on outreach and news coverage since the release of the 2017 BRP Addendum. Highlights included:

- The Washington ocean acidification story received national coverage and was picked up by upwards of forty Washington-based news outlets.
- Recent success stories include Betsy Peabody's feature in the Seattle Times for her work with kelp and Bill Dewey's international presentation in the Azores to share the story of hardship for shellfish growers and the threat of changing ocean conditions.
- Work is not finished for identifying new avenues to keep the urgency of ocean acidification alive in the media. Liz encouraged the group to think about any other stakeholder groups that would be valuable to include in our outreach efforts.

The group reviewed new items in the BRP Addendum to incorporate education and outreach efforts into each ad hoc group. New actions include:

- (8.1.5) Raise awareness of available ocean acidification tools and resources.
- (8.1.6) Develop and periodically update an ocean acidification outreach and communications strategy and an annual list of key messages and key findings.

Participants discussed potential opportunities to incorporate these new actions into each ad hoc group and reported on recent outreach efforts. The following points were discussed:

- Betsy Peabody, Puget Sound Restoration Fund, suggested incorporating Dick Feely's update that Puget Sound is reaching its buffer limit into messaging efforts. Simone Alin, NOAA, added additional results on buffer capacity in Puget Sound are expected to be ready to share this summer.
- Meg Chadsey, Washington Sea Grant, presented on a recent outreach effort conducted by Puget Sound Restoration Fund and Sea Grant to engage the culinary community by promoting sugar kelp as food. Kelp was served as part of the menu at a recent conference in Bothell, featuring a kelp tasting kit, kelp aquaculture information, recipe cards and dried kelp samples from Hood Canal. The kelp grown on the array at Hoods Head is now permitted and safe for human consumption, adding more motivation to continue to propagate kelp in the Puget Sound.

Update on ocean acidification policy questions

Rich Childers, WDFW, and Kirsten Feifel, Washington Department of Natural Resources, provided an overview of the ocean acidification policy questions, a collaborative effort with the Department of Natural Resources and Department of Fish and Wildlife. Since the November MRAC meeting, Katie Keil and Nyssa Baechler, UW School of Marine and Environmental Affairs, conducted interviews with state and tribal resource managers and used the interview

information to develop an online survey for distribution to a wider group. Key guiding questions included:

- How will changing ocean conditions impact marine resources?
- What data and information are needed by managers to effectively evaluate resource impacts and response strategies?
- How can we improve regional collaboration and coordination between partners?

MRAC members were encouraged to take the survey and distribute to other interested parties. The survey will be open from April 25 through May 4, 2018. Preliminary results will be shared during a webinar on May 14, and a final summary of survey results will be released on June 30 and published on OAinWA.org.

2019-2021 budget priorities

The group discussed existing funding priorities and likely carry-forward budget items for the 2019-2021 biennium. Linda Steinmann, Office of Financial Management, explained the carry-forward budget is currently in discussion and will be finalized in June. Existing carry-forward priorities include:

- WOAC Operations (\$575,000) – UW budget
- WOAC Ocean Acidification Monitoring (\$625,000) – UW budget
- WOAC Forecast Model (\$150,000) – UW budget
- MRAC Facilitation (\$150,000) – DNR budget
- *TBD* – Kenneth K. Chew conservation hatchery (\$448,000) – WDFW budget

The group agreed continued funding for the Kenneth K. Chew hatchery is a high priority, as is renewed funding for biological responses.

Participants also discussed potential new funding priorities and where they could be incorporated into agency or MRAC budgets. Potential new funding priorities include:

- Monitoring dissolved inorganic carbon (DIC) and alkalinity
- Additional research efforts in Willapa Bay/coast
- Education/outreach/communications coordination

Angie Thomson explained there will be follow-up calls with ad hoc committees to discuss funding priorities in more detail and next steps.

MRAC Workplan

Angie Thomson reviewed MRAC's general workplan and milestones for the remainder of the biennium through Spring 2019. Key meetings and milestones include:

When	What
April 2018	MRAC call
June 2018	Ad hoc calls, as necessary
Summer 2018	MRAC in-person meeting
<i>Sept. 2018</i>	<i>Decision Packages (if any) submitted</i>
Nov. 2018	MRAC call
<i>Dec. 2018</i>	<i>Governor releases budget</i>
Early 2019	MRAC call
<i>Spring 2019</i>	<i>Legislature finalizes budget</i>
Spring 2019	MRAC in-person meeting

Participants agreed a virtual meeting in Summer 2018 may be preferred over an in-person meeting to better accommodate schedules.

Next Steps

Angie Thomson reviewed immediate next steps, including scheduling as-needed ad hoc calls in the coming months and an in-person or virtual meeting in Summer 2018.

Martha Kongsgaard thanked everyone for their participation and adjourned the meeting.