

WASHINGTON COASTAL MARINE ADVISORY COUNCIL MEETING

AGENDA

Wednesday, April 1, 2020 9:30 am – 12:30 pm

WEB-EX ONLY

JOIN WEBEX MEETING

<https://watech.webex.com/watech/j.php?MTID=md757dee814b823e5491f5678e9cae3af>

Meeting number (access code): 282 698 745

Meeting password: YwGwpc8r

JOIN BY PHONE

+1-415-655-0001 US Toll

Please try to call-in around 9:15 so that everyone can be online and ready to go by 9:30. The meeting will start promptly at 9:30 a.m.

Time	Agenda Item (Action items are marked with "I")	Objective (Information, Discussion, Action?)	Presenter(s)
9:30* (15 min)	Welcome & Introductions, Agenda Review <ul style="list-style-type: none"> Welcome and Introductions Review agenda ! Adopt summary of April meeting 	Information <i>Reference Materials:</i> <ul style="list-style-type: none"> Agenda Draft Meeting Summary 	Garrett Dalan, WCMAC Chair Susan Gulick, Facilitator
9:45* (45 min)	Updates <ul style="list-style-type: none"> MRC Updates, Agency Updates, General Coastal Updates MRAC Budget Update Ecosystem Indicators Update Next Steps: Green Crab Management 	Information	WCMAC Members Susan Gulick, Facilitator WCMAC Members
10:30* (45 min)	MSP Data Evaluation <ul style="list-style-type: none"> Update on survey results and next steps 	Information	Teresa Pucylowski, Ecology
11:15* (10 min)	BREAK		
11:25* (10 min)	Economic and Coastal Hazards Workshops <ul style="list-style-type: none"> Update on status of workshops 	Information, Discussion	Rod Fleck, WCMAC Member Bobbak Talebi, Ecology
11:35* (10 min)	WCMAC Workplan <ul style="list-style-type: none"> Agenda Topics for Next Meeting Agenda Topics for Future meetings 	Information, Discussion <i>Reference Materials:</i> <ul style="list-style-type: none"> WCMAC Workplan & Meeting Plan 	WCMAC Members Susan Gulick, Facilitator
11:45* (10 min)	Public Comment	Information	Public/Observers Susan Gulick, Facilitator
11:55* (5 min)	Other Issues <ul style="list-style-type: none"> Reminder of Dates and Times for Future Meetings Other issues or announcements Other 	Information	WCMAC Members Susan Gulick, Facilitator
12:00*	Adjourn		Garrett Dalan

* All times are estimates and subject to change.

Upcoming WCMAC Meetings
<ul style="list-style-type: none"> Wednesday, September 23, 2020 Wednesday, December 9, 2020

WCMAC Workplan

6/1/20

	Topic	Purpose	Source*	WCMAC Focus	Timeframe	Tasks	Information Needs	Notes/Status Updates
A.	Coastal Resilience	Prioritize needs and actions to carry out the recommendations in the Ruckelshaus "Washington State Coast Resilience Assessment Final Report (2017)"	C	Information Sharing; Informal Advice; Formal Recommendations	Ongoing	1. Guide Ecology and Washington Sea Grant in completing the "Washington Coast Resilience Action Demonstration (RAD) Project" 2. Guide and participate in a science-policy workshop on coastal hazards 3. Help shape recommendations to the Governor, the Legislature, and state and local agencies to further support long-term pre-disaster risk reduction for Washington's Pacific coast-wide resilience initiative.		* 18 month NOAA grant was awarded to Ecology's Coastal Program to partner with WCMAC on the "Washington Coast Resilience Action Demonstration (RAD) Project" * Coastal Hazards workshop is being planned for Fall 2020
B.	Ecosystem Indicators	To provide feedback to the state on refining the list of ecosystem indicators.	C	Informal Advice	6/19-7/19	1. Compile existing lists of indicators, summary of methods, and proposed process for refining indicators (<i>WCMAC staff</i>) 2. WCMAC briefing and discussion (<i>WCMAC Meeting</i>) 3. Staff and other experts participate in OCNMS Ecological Indicator selection process	1. List of current potential indicators 2. Summary of methods used to identify current list 3. Informational briefing on developing scientifically robust indicators 4. Presentation from OCNMS on Conditions Report and Ecological Indicators	*Need to consult with NOAA (NWFSC)
C.	Economic Resiliency Workshop	To convene a 1-day workshop on economic resiliency in coastal communities	W	Information Sharing	3/19-6/20	1. Develop scope of work/approach for a 1-day workshop in May of 2020 to address economic resiliency in coastal communities	TBD	*Rod has agreed to chair this effort. *The recommendations from the workshop will be considered in the June WCMAC meeting for possible adoption in the Sept. meeting
D.	Science and Research Agenda	To provide feedback to the state on the development of a science and research agenda, including data gaps and WCMAC's priorities.	C	Informal Advice	6/19-7/19	1. Compile Data Gaps (<i>WCMAC Staff</i>) 2. WCMAC Discussion on Initial List of Gaps and Priorities (<i>WCMAC Meeting</i>) 3. Coordinate with ecosystem indicators work	1. List of data gaps (initial list from MSP) 2. Summary of existing, current science needs documents for WA Coast (e.g. OCNMS, PFMC)	
E.	Monitor Implementation of MSP	To keep WCMAC informed of MSP implementation efforts To consider practical applications of the MSP	C	Information Sharing (See also A. above)	Ongoing	1. Summarize status of MSP implementation tasks (<i>WCMAC staff</i>) 2. Federal Consistency: Review Washington's authority in reviewing federal activities	1. Informational Briefing on Status of MSP Implementation	*Include briefing on how the plan gets used, particularly regarding new applications *Review plans that are inconsistent with MSP
F.	Annual Work Plan	To develop an annual workplan to guide planning for WCMAC meetings and activities.	B	Operations/Admin	12/20	1. Compile topics and outcomes (<i>Steering Committee</i>) 2. Develop draft annual workplan (<i>Steering Committee</i>) 3. Discuss and adopt work plan (<i>WCMAC Meeting</i>)	1. Input from WCMAC members and Gov's office on topics and priorities	* Initial draft work plan discussed at September meeting with final work plan addressed at Dec. meeting.
G.	WCMAC Meeting Agendas and Operations	To fulfill Steering Committee responsibilities as listed in the by-laws	B	Operations/Admin	Ongoing	1. Set WCMAC Agendas for each meeting 2. Conduct officer elections every 2 years		

Source: C= Governor's Charge; B=Bylaws; W=WCMAC Generated

	Other Topics of Interest/Future Consideration	Notes/Comments
1	Coastal Erosion	Coastal Resiliency Work Group is planning a Science-policy
2	Sea-level rise	workshop on Coastal Erosion and Sea Level Rise: 2020-21
3	Trends in changing ocean conditions	Scheduled for Sept. 2020
4	Shipping overview	
5	Oil terminals	
6	Commercial Net Pen Aquaculture	
7	Offshore Aquaculture	
8	Shellfish Aquaculture Management issues (e.g. invasive species, burrowing shrimp, etc.)	Will provide ongoing updates to WCMAC as appropriate; update on settlement agreement was provided at 12/11/19 meeting
9	Invasive Species and Pest Species Management (other than Green Crab)	Benthic impacts of burrowing shrimp (Kathleen Sayce) (Green Crab presentation provided at 4/1/20 meeting)
10	Changing Fishing Fleets and Alternative Fishing Methods	
11	Coastal Energy	Other coastal groups are considering hosting a workshop
12	Economic Development: How <u>do</u> coastal communities adapt to changing economy?	Workshop planned for 2020-21
13	Building Local Capacity	
14	Watershed Protection	
15	Ecosystem Services Valuation	
16	Federal Consistency	Scheduled for Sept. 2020
17	Ecology's Spill Program	
18	Ecological Indicators in Estuaries	Technical Committee will discuss
19	Regular Financial Updates on WCMAC's budget status	Will be periodically added to WCMAC's agenda
20	Sea Floor Mapping Update	
21	Recreation and tourism issues	
22	Ocean Acidification Sentinel Site	
23	Nanoos Data	Nanoos presentation on new data products/apps for ocean users that help improve understanding of ocean conditions and safety (ideally Jan or Rachel)
24	Renewable Energy and Economics	Presentation by Brian Pologye of UW/PMECC and also a member of the science advisory panel. Could also speak to research happening in OR
25		
26		

	Topics Addressed in Previous Meetings	Notes/Comments
	Vessel Traffic/Navigational Safety/Transport of hazardous substances	Briefing on Grays Harbor Vessel Traffic Risk Assessment occurred at 3/28/18 meeting.
	Ocean Acidification	Presentation by MRAC members at 6/13/18 meeting
	Tsunami/Disaster Preparedness	Presentation at 6/13/18 Meeting
	Juvenile salmon survey results and ocean conditions	Webinar in 9/18
	Briefing from WDFW on recreation and commercial fishing allocation	Presentation at 12/12/18 meeting
	Salmon Management	Workshop at 10/2/19 meeting
	Potash Terminal in Grays Harbor	Presentation at 12/11/19 meeting
	Harmful Algal Blooms (HAB)	Presentation at 4/1/20 meeting
	Priorities for 2020 are highlighted in green	

2020-21 WCMAC Meeting Plan

6/1/2020

June 10, 2020	
Topic	Presenter
<ul style="list-style-type: none"> • Informing the Econ Workshop <ul style="list-style-type: none"> ○ Coastal Resilience and corona virus ○ Help shape the workshop agenda 	▪
<ul style="list-style-type: none"> • Next Steps on Green Crab Management Plan/WCMAC Role 	▪
<ul style="list-style-type: none"> • MSP Survey results 	▪
<ul style="list-style-type: none"> • Budget request 	▪

September 23, 2020	
Topic	Presenter
<ul style="list-style-type: none"> • Adopt 2021-23 Biennial Budget Request 	▪
<ul style="list-style-type: none"> • 2021-23 Workplan—initial discussion 	▪
<ul style="list-style-type: none"> • Federal Consistency 101 <ul style="list-style-type: none"> ○ BOEM ○ Federal Oil and Gas Leasing Update ○ CZMP and State role in federal waters <ul style="list-style-type: none"> ✓ What tools do we have to address new projects? ✓ What are the roles of WCMAC, State Agencies, Stakeholders? ✓ SMPs and federal consistency ○ ORMA: applications and limitations 	▪ Ecology and NOAA's Office for Coastal Management (Bobbak and Brian Linn coordinating speakers)
<ul style="list-style-type: none"> • Update on N of Falcon 	▪ WDFW (Ron Warren)
<ul style="list-style-type: none"> • Changing Ocean Conditions 	<ul style="list-style-type: none"> ▪ NOAA NW Fisheries Science Center ▪ NANOOS: new data/apps that improve understanding of ocean conditions and safety (Ideally Jan or Rachel)

Economic Workshop: Date TBD	
Topic	Presenter
•	▪
•	▪

Coastal Hazards Workshop (Date TBD)	
Topic	Presenter
• Flooding and Erosion	▪ Ecology
• Landslides and Tsunamis	▪ DNR
• Sea Level Rise	▪ Sea Grant/OSU (Peter Ruggiero)
• Climate Change Impacts	▪ Climate Impacts Group (Heidi Roop)
•	▪
•	▪

December 9, 2020

Topic	Presenter
• WCMAC Officer Elections	▪
• Discuss Proposed Recommendations from Coastal Hazards Workshop (if completed)	▪
• Discuss Proposed Recommendations from Economic Workshop (if completed)	▪
• Finalize 21-22 Workplan	▪
• Invasive species? <ul style="list-style-type: none">○ Burrowing shrimp○ Other	▪
•	▪

March 2021

Topic	Presenter
•	▪
•	▪

Topics to weave into 2020 agendas:

- Discussion of data gaps/research needs
- Briefing on status of MSP implementation
- Ecosystem indicators

WASHINGTON COASTAL MARINE ADVISORY COUNCIL MEETING

Draft Summary

Wednesday, April 1, 2020 9:30 am – 3:30pm

Via **WEB-EX**

All meeting materials and presentations can be found on the WCMAC website:

<http://www.ecy.wa.gov/programs/sea/ocean/advisorycouncil.html>

<p>Highlights</p> <ul style="list-style-type: none"> • Presentations about harmful algal blooms and European green crab • WCMAC will support the policy development for a European green crab management plan for the WA coast • Update on the Resilience Action Demonstration Project • Update on the Marine Spatial Plan survey and the Ecosystem Indicators Modeling efforts <p>Summary of Decisions</p> <p>! The December Meeting Summary was adopted.</p> <p>Follow-up Items</p> <ul style="list-style-type: none"> • Link to Marine Spatial Plan survey will be re-sent to WCMAC members to complete by April 24th. 	<p>Upcoming Meetings</p> <ul style="list-style-type: none"> • Wednesday, June 10, 2020 • Wednesday, September 23, 2020 • Wednesday, December 9, 2020 <p><i>Meetings will be held in Aberdeen unless otherwise noted</i></p>
--	---

Council Members Present (via Zoom)	
Alla Weinstein, Energy	Katrina Lassiter, DNR
Dale Beasley, Commercial Fishing	Randy Lewis, Ports
David Fluharty, Educational Institution	Rich Osborne, Science
Doug Kess, Pacific MRC	Rich Doenges, Dept. of Ecology
Garrett Dalan, Grays Harbor MRC	RD Grunbaum, Conservation
Gus Gates, Recreation	Russell Callender, WA Sea Grant
Jay Carmony, State Parks	Todd Souvenir, Wahkiakum MRC
Jennifer Hennessey, Governor's Office	

Council Members Absent	
Brian Sheldon, Shellfish Aquaculture	Mara Zimmerman, WA Coastal Salmon Partnership
Corey Niles, WDFW	Mike Cassinelli, Recreational Fishing
Crystal Dinger, Citizen	Mike Passmore, Wahkiakum MRC
VACANT, Coastal Energy	Rod Fleck, North Pacific MRC
Joshua Berger, Dept. of Commerce	VACANT, Economic Development
Larry Thevik, Commercial Fishing	VACANT, Shipping

Others Present (as noted in role call)

Allen Pleus, WDFW, Presenter	Kate Graham, Cascadia Consulting, Facilitation Support
Anthony Odell, UW Olympic Natural Resources Center, Presenter	Kevin Decker, WA Sea Grant
Bobbak Talebi, Dept. of Ecology	Lovel Pratt, Friends of the San Juans
Casey Dennehy, Dept. of Ecology	Sonni Tadlock, WA Sea Grant/Ecology
Emily Wright, Cascadia Consulting, Facilitation Support	Susan Gulick, Sound Resolutions, Facilitator
Genevra Haruer-Klimes, Pacific Northwest National Laboratory	Teressa Pucylowski, Ecology
Jackson Blalock, WA Sea Grant	Tommy Moore, Northwest Indian Fisheries Commission
Julie Ann Koehlinger, Hoh Tribe	Tressa Arbow, Ecology

Welcome and Introductions

Garrett Dalan welcomed everyone to the virtual meeting. Technological logistics were discussed. Susan Gulick conducted a role call of attendees and reviewed the agenda. She confirmed there was a quorum for the meeting.

December Meeting Summary

- Susan Gulick asked for edits to the December meeting summary. Corrections/clarifications included:
 - Casey Dennehy, Dept. of Ecology, had submitted a minor change in advance of the meeting to clarify the "Geographic Location Description (or GLD)" portion in the Marine Spatial Plan (page 3).
- ! The December Meeting Summary was adopted with the above change.

Coastal Updates

MRC Updates

- Pacific County MRC has cancelled Earth Day activities and is considering cancelling the Science Conference. Otherwise they are conducting normal business.
- Grays Harbor MRC held their March meeting in person but only three people attended. They are considering modifying the MRC schedule to hold less frequent, but larger and more engaged meetings (e.g., quarterly meetings with an event and presentation). They are seeking to expand their engagement and what they provide to the community.
- North Pacific MRC has switched to remote meetings. The Coast Beach Cleanup has been cancelled. They discussed focusing efforts after July 4th rather than around Earth Day.
- No updates were provided for Wahkiakum MRC.

Agency Updates

- Ecology staff are teleworking and in-person meetings have been cancelled. The Chehalis Basin draft EIS meeting will be held virtually. Field staff are not conducting field inspections at this time, but the spills response team is still active and in the field.
- DNR is determining which of their typical field season activities can still be conducted.
- The Governor's Office has been busy with the COVID-19 outbreak. Staff have been engaged in addressing economic impacts on businesses across the state, including how to support businesses and clarify what is considered "essential business." Post-legislative session work will wrap by the end of the week, including signing off on the

budget that includes funding for DFW to respond to European green crab hot spots in Puget Sound and conduct assessments on the coast in Grays Harbor and Willapa Bay.

- WA Sea Grant is teleworking and is open for business as much as they can be. They cancelled the annual Shellfish Growers Conference, but they did hold a webinar in March that identified potential resources from the State to support the industry. The webinar recording is available at: <https://wsg.washington.edu/community-outreach/covid-19-resources-shellfish/>. The federal stimulus package includes a \$3 million fund for “fisheries participants.” It is not currently clear how that fund will be managed. The European green crab volunteer monitoring program is on hold right now. Sea Grant is working to continue harmful algal bloom monitoring through the Sound Toxics program if volunteers are willing and can do so safely.
 - Russell Callendar noted Sea Grant is hiring for three positions: two assistant directors—one focused on science and another on outreach—as well as a commercial fishing specialist.
- WA State Parks staff are teleworking. All parks, campgrounds, and ocean beach roads are closed. Some capital projects have ceased for the time being. They are considering federal assistance for some trails projects and other capital projects. There is a closed conservation area at Leadbetter Point that some folks have been driving into. Jay Carmony requested ideas for preventative measures to reduce this driving into closed areas and protect the snowy plover population.
 - Dale Beasley stated that more involvement from State Parks was needed to address the erosion problem and save the beach at Cape Disappointment State Park. He noted that the Army Corps of Engineers is dumping sand offshore, which is least cost option. Jay responded that State Parks made a \$5,000 contribution to the effort and a staff member has attended all the meetings. He acknowledged that they may not be as strong of an advocate as desired, but they are at the table. He welcomed specific recommendations and requests for what to do via email.

Other Coastal Updates

- Rich Osborne noted that Olympic Natural Resources Center staff are working remotely and the facility is on the short-list for hospital overload for the City of Forks. Multiple grant programs are ongoing and moving forward on schedule by holding virtual meetings and site visits. They are continuing harmful algal blooms monitoring.
- Randy Lewis shared that several Port businesses are considered essential and are still operating. Shipping traffic is still occurring. The Coast Guard has set policy and procedures on monitoring and reporting for inbound shipping traffic; so far, there have been no incidences of needing to redirect ships to quarantine.
- Garrett noted that Dale and other WCMAC members are participating in a DFW-led effort around fisheries marketing, though it is momentarily on pause. It marks a new proactive approach in DFW. Garrett welcomed questions and ideas and would put people in touch with DFW.
- Dave Fluharty shared that one of his former students was appointed the director of NOAA Fisheries’ office for aquaculture. His Master’s thesis 10 years ago looked at impacts of climate change on aquaculture.

Economic Resiliency Workshop

- Garrett provided an update that the workshop, originally planned for May 14-15, was postponed until October due to limited funding as well as the pandemic. The planning team is hoping that funding challenges will be resolved by then. Garrett asked each MRC to designate in \$600 to \$1,000 in their budgets to help bridge the funding gap.
- Garrett noted that given the pandemic, there may be an opportunity for generating a case study of how the coast experiences economic impacts—given the theme of the workshop is economic resiliency. He noted there the team is open to think creatively to adjust the focus of the workshop to incorporate those learnings.
- Bobbak Talebi has been pursuing funding opportunities for the workshop. He spoke to the Executive Director and Tribal Liaison of the Washington State Community Economic Revitalization Board (CERB), which specializes in local economic resiliency. She has experience with coastal issues specifically and is excited about participating. Bobbak

also connected with other agencies, including NOAA's Office for Coastal Management, whose West Coast Regional Director is going to discuss participation with recently hired specialists on marine economies and look into funding resources.

Harmful Algal Blooms of the Pacific Northwest

Susan introduced Anthony Odell from the UW Olympic Natural Resources Center. He coordinates the Olympic Region Harmful Algal Bloom (ORHAB) Monitoring Partnership and gave a presentation entitled "Phytoplankton 101 and Harmful Algal Blooms (HAB) of the Pacific Northwest." Presentation materials are available at the WCMAC website (link listed on first page of meeting summary).

Discussion

- Doug Kess asked whether the HAB risk poses an impending disaster to our seafood industry. Anthony replied that there have already been disasters and we can expect them to increase in frequency, magnitude, and toxicity in the future.
- Anthony was asked what the WCMAC could do regarding HABs. He responded that they need a lot of volunteers for monitoring as well as outreach to raise public awareness, since many people are unaware of the presence and consequences of HABs. In addition, funding is always needed to build infrastructure, such as purchasing lab and sampling equipment and conducting trainings with Tribes.
- Russell expressed that WA Sea Grant would be happy to collaborate with Anthony's office on outreach. He also noted that their Sound Toxics monitoring effort that can help as well. He asked whether there is a possibility to boost agency and tribal monitoring efforts, given the shellfish industry is essential to the state. Anthony heard that Tribes' monitoring is temporarily shut down. He received word that agency monitoring is suspended right now. He is able to do some testing in his own home office and he is encouraging residents to bring samples in to be tested.
- Lovel Pratt asked whether the management regulations around ballast water were sufficient to manage HABs. Anthony noted that ballast water exchange occurs in the waters above the Juan de Fuca eddy, which is a breeding ground for phytoplankton. He acknowledged that he does not know all the factors around ballast water management, but noted that it seems unwise for this to occur in the eddy.
- Anthony was asked whether marine yeasts have an effect on HABs, and he said he is not aware of any effect.

Public Comment #1

There were no public comments during the morning session.

Terminal Update on European Green Crab

Susan introduced Allen Pleus from WDFW to give a presentation on European Green Crab. Presentation materials are available at the WCMAC website (link listed on first page of meeting summary).

Discussion

- Rich O. asked if tribal partners would be able to help sample for gravel females during April. Allen said the Makah Tribe has a stay-at-home order and will not be sending out field crews. Katrina Lassiter has heard from many tribes that they have very limited capacity right now.
- Rich O. asked whether the sampling was equivalent through the period shown in the graph (see presentation) and whether sampling played a role in the dip in 2015. Allen noted that only one site has been consistently monitored over the time period shown in the graph. The rise since 2015 is partially due to more growers reporting that they have caught European green crabs. Allen confirmed that trapping is the only way to control green crabs.

- Garrett inquired whether DFW has a position on recreational and/or bounty catching of European green crab, given that there has been some public interest. Allen noted that European green crab is not a suitable species for the public to support control efforts because 1) capturing them requires intertidal access to multiple properties, 2) they are difficult to identify, and 3) unique equipment is required to capture them. DFW aims to provide resources (e.g., training and supplies) for scientists to increase capacity to capture them.
- Rich O. noted a recent article on scientists working to make European green crabs palatable. He shared the following link: https://www.theguardian.com/us-news/2019/jun/21/coping-with-crisis-how-scientists-are-making-an-invasive-crab-a-delicacy?CMP=share_btn_link.
- Rich O. asked what WCMAC's role might be in supporting the development of a management plan for European Green Crab. Allen noted the Governor's Office felt WCMAC would be the most appropriate body for policy coordination and wants to gauge WCMAC's capacity and interest. Jennifer Hennessey reminded the group that there is a transboundary management plan for European Green Crab in the Salish Sea (available at <https://wdfw.wa.gov/publications/02045>). A similar plan does not exist for the Washington coast. She indicated that WCMAC could be a good group to provide input on the development of goals and strategies for managing European green crab.
 - Rich O. expressed interest in WCMAC participating in the policy discussion, noting they could start with the Salish Sea plan and adapt it to the coast's particular situation. Doug, Russell, and Rich D. all expressed support for WCMAC's involvement.
- Doug asked Jennifer her perspective on the mechanism for providing input. Jennifer noting that management plan will inform long-term funding needs, as opposed to emergency response funding that is being used now. Input on this plan would be an appropriate agenda item for regular WCMAC meetings.
- Key McMurry commented about the possibility to use European green crab as bait and noted there was monitoring work done in 1998-1999 by the Shoalwater Tribe.

Resilience Action Demonstration Project

Tressa Arbow from the Department of Ecology gave a presentation update on the Resilience Action Demonstration (RAD) project. Presentation materials are available at the WCMAC website (link listed on first page of meeting summary).

Discussion

- Bobbak asked about the process for identifying fundable projects and developing guidelines. Tressa explained that the project has been focusing research on grant programs with a substantial amount of funding, such as those from WICRRI, FEMA, NFWF, NOAA, and programs like Floodplains by Design. She is reviewing their language around objectives, goals, focus, and selection criteria and mapping these factors to find overlapping themes as a metric for evaluating projects. Tressa is trying to align this research with the conversation on the coast to create the guidelines.
- Jennifer encouraged research into USDEA's disaster grants, which often include language around rebuilding infrastructure to be more resilient. She noted that the grants do not name resilient in their title per se, but it may still be relevant. She noted that many areas on the coast may qualify for receiving a higher federal contribution and providing a lower local match.
- Doug noted he would like to see the Chinook Restoration Hatchery project funded and offered to send contact information for that effort.
- Bobbak noted that the coastal hazards resilience workshop is still a priority but has been postponed until the fall.

Technical Committee Update

Susan noted that there has been low attendance in the Technical Committee meetings, so they are no longer going to hold monthly meetings. Instead, they will hold meetings on an as-needed basis moving forward. Teressa Pucylowski gave a

presentation about two projects related to Marine Spatial Plan (MSP) data. Presentation materials are available at the WCMAC website (link listed on first page of meeting summary).

1) MSP Data Assessment Survey: this was emailed to WCMAC members. The closing date for the survey is April 15th, but they can extend this if people need more time to respond.

Discussion:

- Gus Gates asked how much feedback has been received so far. Teressa said the response rate so far has been about 25%. She noted that there are not clear trends—there is a mix of really specific information and broad ideas. Gus asked how much flexibility there is on the closing date. Teressa said the end of April would be ideal and a month later (May 15th) would be the maximum extension so there is a sufficient period of time to analyze the data.
- Rich O. expressed interest in filling the survey out and recommended putting April 24th as a hard deadline and making the email more attention-grabbing. Bobbak expressed agreement that there should be a firm deadline. Susan will re-send the email notification of the survey to the WCMAC listserv.
- Katrina provided feedback that the survey took a long time and deterred her from completing it. Teressa commented that she can carry out the survey through 1-on-1 interviews with people to make it easier to complete. She acknowledged the Excel-based format presented difficulties.
- Casey encouraged everyone to designate 1-2 hours to work through the survey. He emphasized that the effort is not futile—it will gather a lot of information from many different stakeholders that will bolster efforts to bring in more funding resources.
- Garrett asked about data updates in the ocean data viewer system. Casey replied that many data sources are not held in the GIS system, so if data is updated by the source regularly, then the viewer will show that updated information. Other data that are not updated regularly will remain static in the viewer.

2) Ecosystem Indicators Modeling

Ecology has hired Robert Wildermuth from Dartmouth University to complete the ecosystem indicators modeling. He will be supported by his PhD advisor, Gavin Faye, as well as Chris Harvey from NOAA and Sean McDonald from UW. He is highly qualified, and this work will support him as he completes his PhD by the end of 2020. His contract provides funding for two trips to meet with Ecology staff over the course of the project.

Discussion:

- Doug expressed concern that there could be significant economic impacts from the current pandemic, and that the short-term results would be different than long-term results. Teressa said that they would like to include economic indicators in the model, but since they haven't been included to date, she's not sure what that would like.
- Rich O. expressed interest in participating in meetings with the person hired to do the modeling for this effort and noted that the Olympic Coast National Marine Sanctuary could partner with this effort. Susan noted it may be a good opportunity to have Robert and others on the project present at a future WCMAC meeting if it aligns with the timing of his visit. Teressa said that may be possible.
 - An "Initial Meeting" is intended to occur shortly after the project begins, which will bring together technical experts, resource managers, and key stakeholders to further define these ecosystem models and outline a process for moving forward.

WCMAC Workplan

Susan reviewed the WCMAC Meeting Plan regarding planned topics to be covered in upcoming meetings.

- Russell asked where the meetings could accommodate WCMAC's involvement in the European green crab effort, as discussed earlier in the meeting. Susan said she would put that on the list for June, noting that at a minimum there could be an update.
- Rich O. asked if the MSP survey results would be presented at the June 10th meeting. Teressa said that it may be ready, but if not, then the results would be ready for the September meeting. Susan will put it on the meeting plan. Rich O. said that the MSP survey, indicators, and European green crab effort should all be ongoing updates moving forward.
- Gus suggested that if remote meetings are continued, then the duration of meetings should be shortened to make it more appropriate for a virtual format. He expressed that 6 hours is too long of a time to stare at a screen and receive information. Susan welcomed other ideas on how to make the remote format work better.
 - Randy provided an example of a 1.5-day in-person conference that was converted to a series of 2 to 2.5-hour webinars, which worked well. He suggested considering making the change to break up the quarterly meetings into a series of 2-3 sessions each.
- Dale asked who from BOEM would present on the federal consistency topic in the June 10th meeting and whether the shoreline master program would be included. Susan said Ecology is still working on identifying presenters. Bobbak said that the shoreline master program would be addressed in the June presentation. Susan said she will include it in the list of topics that WCAMC wants to be addressed.

Public Comment #2

There were no public comments during the afternoon session.

Other Issues

- Upcoming meetings are listed at the top of the meeting summary.
- The June 10th meeting is still planned for in-person at the Port of Grays Harbor, but this is uncertain due to Covid-19 travel precautions. We will keep members apprised of changes.
- Bobbak asked whether WCMAC should approve the graphic version of the meeting summary. Susan said a formal approval may not be needed, but it would be worth getting feedback. Garrett expressed that he finds the graphic version useful and encourages that it be maintained as long as possible with resources available.