

WASHINGTON COASTAL MARINE ADVISORY COUNCIL MEETING

AGENDA

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

WEB-EX ONLY

<https://watech.webex.com/watech/j.php?MTID=mb847fafaf266b2b18c9967b9e69e11a6>

Meeting number (access code): 800 188 648

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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 I Adopt summary of December 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)	Coastal Updates <ul style="list-style-type: none"> MRC Updates, Agency Updates, Budget update, MRAC and General Coastal Updates 	Information	WCMAC Members Susan Gulick, Facilitator
10:30 (90 min)	Harmful Algal Blooms (HAB) <ul style="list-style-type: none"> Harmful Algal Blooms of the Pacific Northwest 	Information, Discussion	Anthony Odell, UW ONRC ORHAB Program
12:00 (10 min)	Public Comment	Information	Public/Observers Susan Gulick, Facilitator
12:10	LUNCH		
12:45 (45 min)	Update on European Green Crab <ul style="list-style-type: none"> Overview of status and threats Management: prevention and mitigation Questions and discussion 	Information, Discussion	Allen Pleus, WDFW
1:30 (30 min)	Resilience Action Demonstration Project <ul style="list-style-type: none"> Update on grant progress and status Next steps Questions and discussion 	Information, Discussion <i>Reference Materials:</i> <ul style="list-style-type: none"> RAD Information Sheet 	Bobbak Talebi, Ecology Tressa Arbow, Ecology Jackson Blalock, WA Sea Grant
2:00 (15 min)	Economic Workshop <ul style="list-style-type: none"> Update on workshop status 	Information, Discussion	Rod Fleck, WCMAC Member
2:15 (30 min)	Technical Committee Update <ul style="list-style-type: none"> MSP Data Evaluation Ecosystem Indicators 	Information	Teressa Pucylowski, Ecology
2:45 (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
2:55 (10 min)	Public Comment	Information	Public/Observers Susan Gulick, Facilitator
3:05 (25 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
3:30	Adjourn		Garrett Dalan

Upcoming WCMAC Meetings

Wednesday, June 10, 2020

Wednesday, September 23, 2020

Wednesday, December 9, 2020

WASHINGTON COASTAL MARINE ADVISORY COUNCIL MEETING

Draft Summary

Wednesday, December 11, 2019 9:30 am – 3:30pm

Location: Port of Grays Harbor Commissioners Chambers, 111 S. Wooding St., Aberdeen, WA

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 proposed rule for expanded Southern Resident Killer Whale Critical Habitat and the proposed Grays Harbor Potash Terminal • Update on the settlement agreement between Ecology and Oyster Growers Association • Update on the coastal economic resiliency workshop <p>Summary of Decisions</p> <ul style="list-style-type: none"> ! The October Meeting Summary was adopted. ! Crystal Dingler was elected as Vice Chair. <p>Follow-up Items</p> <ul style="list-style-type: none"> • Continue to work on the details of the Economic Workshop 	<p>Upcoming Meetings</p> <ul style="list-style-type: none"> • Wednesday, April 1, 2020 • 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>
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Council Members Present	
Brian Sheldon, Shellfish Aquaculture	Katrina Lassiter, DNR (by phone)
Corey Niles, WDFW	Larry Thevik, Commercial Fishing
Crystal Dingler, Citizen	Mara Zimmerman, WA Coastal Salmon Partnership
Dale Beasley, Commercial Fishing	Mike Cassinelli, Recreational Fishing
David Fluharty, Educational Institution (by phone)	Randy Lewis, Ports
Doug Kess, Pacific MRC	Rich Osborne, Science
Garrett Dalan, Grays Harbor MRC	Rod Fleck, North Pacific MRC (by phone)
Gus Gates, Recreation	Rich Doenges, Dept. of Ecology
Jay Carmony, State Parks	RD Grunbaum, Conservation

Council Members Absent	
Alla Weinstein, Energy	Mike Passmore, Wahkiakum MRC
Jeff Ward, Coastal Energy	Tiffany Turner, Economic Development
Jennifer Hennessey, Governor's Office	VACANT, Shipping
Joshua Berger, Dept. of Commerce	Russell Callender, WA Sea Grant

Others Present (as noted on the sign-in sheet)	
Bobbak Talebi, Dept. of Ecology	Lee First, Twin Harbors Waterkeeper
Brian Carrico, WSP, Presenter	Nancy Young, NOAA, Presenter (by phone)

Casey Dennehy, Dept. of Ecology	Noé Isaac Cavazos, Dept. of Homeland Security
Emily Wright, Cascadia Consulting, Facilitation Support	Sonni Tadlock, WA Sea Grant/Ecology
Genevra Haruer-Klimeš, Pacific Northwest National Laboratory	Susan Gulick, Sound Resolutions, Facilitator
Jackson Bullock, WA Sea Grant	Teressa Pucylowski, Ecology
Ken Smith, BHP, Presenter	Tyler Cowdicy, DNR/Evergreen State College
Kevin Decker, WA Sea Grant	Valerie Bond, BHP, Presenter

Welcome and Introductions

Garrett Dalan welcomed everyone to the meeting. All attendees introduced themselves. Garrett reviewed the agenda.

October Meeting Summary

- Susan Gulick asked for edits to the December meeting summary. Corrections/clarifications included:
 - Parks submitted a change to Agency Updates on Page 3, which should say that the Recreation Concession Area (RCA) is “in” rather than “near” Westport.
- ! The October Meeting Summary was adopted with above noted change.
- Susan clarified that updates offered by members other than agency representatives are captured in the “Other Updates” in the summary. She noted the meeting summary format that will remain in its longer version, per WCMAC members’ preferences expressed in the last meeting. In addition, the Hershman Fellows at Ecology will create the shorter and more visual summary.

Coastal Updates

MRC Updates

- Pacific County MRC is hoping to hold a second clamming seminar and other speaker events. They will hold a science conference on Saturday, May 16th, 2020. They are exploring options to stream the clamming seminar through an online platform. They are discussing funding and developing a list of monitoring projects to consider for funding.
- Grays Harbor MRC will not have a meeting in December. They have received several responses to their RFP. So far, they have funded school field trips, a water quality workshop, and a second education project, and they hope to spend the entirety of that funding. Garrett acknowledged the good work by the North Coast MRC for holding the last summit. Pacific County MRC is next up for holding the summit. There is an agreement with WDFW for continuing funding for the summits.
- North Pacific MRC is in the process of scoring grant applications. Some projects that have been proposed address a range of topics, such as a study on green crab predation by otters, ocean science workshop, ROV youth competition, and research project on razor clam gill disease.
 - Rich Osborne noted that Steve Fradkin from Olympic National Park is a biologist who spoke about razor clams at the last MRC summit.
 - Rod Fleck clarified the green crab study is about river otters. Larry Thevik raised a question regarding adaptation of sea otters toward shellfish consumption. Rich O. noted that sea otters help keep an ecological balance along California coast.
- The representative from Wahkiakum MRC was not present to provide an update.

Agency Updates

- Ecology is requesting \$4 million in supplemental funds to backfill a deficit in an account used for rapid response to oil spills. They are also writing rules regarding drill standards and vapor pressure of fuel oil, which has implications for fire hazard. There will be a public process for how to manage the vapor pressure rule administration effort.
- Bobbak Talebi noted that WCMAC is now using WebEx for remote access to meetings for ease of documentation and access. The link and call-in information is provided at the top of the agenda. He also noted that new labels are provided on packets per members' requests. Bobbak provided the following WCMAC work group updates:
 - Sonni Tadlock (Hershman Ecology Fellow) is leading planning for the Hazard Resilience Workshop. A draft agenda will be shared at the WCMAC Technical Committee meeting in February.
 - Teresa Pucylowski is working on data gaps project and will provide an update at the February Technical Committee meeting.
 - The 5-year Coastal Management Strategy will be discussed with the Technical Committee at the February meeting and a presentation will be given to WCMAC during the March meeting.
- Casey Dennehy provided an update on the Marine Spatial Plan (MSP) effort. The MSP was adopted by NOAA and now they are focusing on geographic information descriptions. They will present at WCMAC at the March meeting.
 - The Geographic Location Description (or GLD) portion ~~geographic information portion~~ will include oil and gas exploration, seafloor mining, aquaculture, renewable energy, and other activities that have a clear impact on marine ecosystems.
 - Teresa provided information about the ecological indicators and data gaps workshop, which was initially planned for January. Due to the amount of information to cover, they are first going to use a survey to prioritize data gaps and research needs, and then assess how to get the data.
 - The audience for the survey includes a broad range of experts who use data and are knowledgeable about the marine ecosystem topics, including academics, resource managers, state agencies, federal agencies, tribes, and WCMAC.
 - They are trying to streamline efforts with the marine sanctuary conference and use the results of the indicators workshop to help inform the survey;
 - Dale Beasley noted how offshore efforts can displace other economic uses of marine space, which has not yet been assessed. Teresa noted that data gaps and research needs may help determine what those effects may be.
 - Teresa confirmed that they are including estuaries in the effort.
 - Ecology, specifically Teresa and Casey, will be distributing the survey and can be contacted with questions.
 - Rich Doenges asked what data gaps they anticipate. Teresa noted her perspective is there are gaps around climate change and ocean acidification (OA), impacts on new uses, and estuaries.
 - Teresa confirmed the next steps of the process: 1) use outcomes from National Marine Sanctuary workshop in January to inform the survey, 2) discuss the survey in the February Technical Committee call, and 3) distribute survey.

MRAC Updates

- Garrett noted no updates to share from MRAC. He will continue sharing updates via the WCMAC listserv. Gus Gates noted an update on OA in the MRAC 1-page newsletter, which Garrett had shared via the listserv, and gave kudos to Jennifer for that work. The Olympic National Park has been approved as a sentinel site for OA.

Other Coastal Updates

- Mara Zimmerman shared that multiple grants are open or will open soon for freshwater restoration. The next WA Coast Salmon Partnership board meeting is on February 25, 2020, where staff will give an annual update on the Partnership's activities and outlook for the next year.

- Garrett shared that The Nature Conservancy's grant from NOAA for the Community Catch program ends in May. They have contracted with Marfish Eco to do a market research study. They have three different surveys online and in hard copy and will also be doing in-person interviews for this research. He noted that WCMAC members may receive a survey.
 - Liz Heatherington, representative from Marfish Eco, shared they are trying to talk with people along the supply chain to understand their perspectives on new opportunities and challenges for the market. They are also doing an economic assessment with landing, pricing, and quota data. Garret will provide Liz's email, website, and survey links through the WCMAC listserv.
 - Currently the scope of the study is marine-caught species that could be additional resources as opposed to redirecting resources or competing with other uses of species. The aim is to maximize the full value on the coast.
- Rich O. shared that this year there have been no major Harmful Algal Bloom (HAB) outbreaks and no closures of razor clam harvesting due to HABs. The HAB Partnership ran four cruises with the Makah Tribe to the Juan de Fuca eddy where HABs that affect the coast tend to originate. The Partnership is applying for a grant to fund a robotic sampler for remote monitoring.

Settlement Agreement: Ecology and the Willapa and Grays Harbor Oyster Growers Association

Rich Doenges shared that the settlement has reached an agreement and provided background context on the events preceding the agreement. Ecology and the Growers Association have agreed to form a working group to find an integrated pest management solution to control burrowing shrimp. The working group will include representatives from state agencies and an environmental group and will meet monthly for one year. Ecology and the Growers Association will co-lead the working group. Currently there is not funding for participation. Rich D. welcomed support from WCMAC to help do that work.

- Brian Sheldon provided perspective from the Growers Association. He noted that they do not agree with Ecology's decision denying the permit to use a pesticide to control burrowing shrimp. He noted that other proposed non-pesticide approaches are likely to have many other negative ecological impacts. He expressed that burrowing shrimp have broader ecological impacts beyond the commercial shellfish industry.
- Rich D. noted that there is funding through WA Sea Grant to do more research to better understand the population dynamics of burrowing shrimp.
- Doug Kess asked a question regarding the unusual nature of a ban for this use. Rich D. clarified that there was not a ban. He provided more explanation around the history of the pesticide use. He noted that Ecology's decision does not prevent people from re-applying for the permit. Brian added context to the history of the pesticide and situation and noted that, in his opinion, currently the pesticide is the only viable solution.
- Dale Beasley asked whether long-term research has been completed regarding the impacts from the pesticide within a historical footprint in the sediment. Rich D. was not aware of studies.

Proposed Expanded Critical Habitat for Southern Resident Killer Whales on the WA Coast

Susan introduced Nancy Young from NOAA to give a presentation via phone about the proposed rule on expanded critical habitat for Southern Resident Killer Whales on the WA Coast. Presentation materials are available on the WCMAC website (link listed on first page of meeting summary). The comment period is currently open for the proposed rule through next Wednesday, December 18th. Comments can be submitted by mail or through Federal e-Rulemaking Portal at www.regulations.gov.

Discussion

- Rich D. expressed surprise that the new boundaries do not enter into central Puget Sound. Nancy clarified that Puget Sound and inland waters of Washington have been designated as critical habitat since 2006 (except for some areas excluded). This rule is to expand the habitat.
 - Rich D. asked whether NOAA is authorizing a take by the Navy in the Quinault exclusion area, either of a critical food source or killer whale. Nancy said the Navy is working with NOAA Headquarters to get authorizations with MMPA and ESA for incidental take; those analyses are underway. They are also looking at effects on proposed critical habitat as well.
- Gus asked whether the designation goes into estuaries to a depth of 6.1 meters. Nancy said it does not go into the bays or estuaries since southern residents have not been sighted in those areas. However, if actions in those areas have effects on critical habitat, they can do a consultation for those actions.
- Larry asked whether the 28 observations used in the process were specific to the SRKW population rather than the transient. Nancy confirmed that they only count confirmed sightings when photos of the whale are matched to the catalog of known individuals in the SRKW population.
 - Larry asked whether the Quinault exclusion area is only for military use or all activities. Nancy said the exclusion would apply to all activities that would occur there.
 - Nancy confirmed that in the economic analysis, they determined an insignificant change in the impact on existing activity types due to the designation. She noted that any additional analysis to protect the whales is good for conservation, but there is already a lot that is being done to protect the SRKW.
- Gus asked whether activities related to offshore drilling and oil and gas exploration would be affected by this designation, given water quality and noise impacts. Nancy noted that at the time of the analysis, there was uncertainty of the future outlook of those activities, so the impacts were not assessed.
- Randy Lewis asked about NOAA's capacity to handle additional consultations as a result of this rule. Nancy said they do not anticipate many new consultations, but rather this rule would require an additional analysis within the consultations they are currently doing. She noted there are no specific cost estimates for doing a Section 7 specifically for SRKW.
- Rod asked about what type of social-economic analysis was conducted. Nancy said a contractor completed the economic analysis and Dave Fluharty did a peer-review of the analysis. Dave noted that the analysis recognized there will be an increased cost in consultation of Section 7 and other measures. Nancy confirmed that upland activities that have an effect on critical habitat areas are considered in the analysis.
- Rich O. asked whether concerns about the Sacramento River salmon run that was an issue during the 2006 critical habitat designation process was still an issue in this process. Nancy noted she could not speak to the 2006 process; food source is being considered in the context of SRKW for Section 7, but not in the critical habitat designation process.
- Dale asked how abundant the SRKW population would need to be in order to be removed from the ESA list. Nancy said that if SRKW were delisted, the critical habitat designation would end. She referred to the recovery plan for specific numbers of population goals and noted that in the current context, it doesn't appear that they are on track. Rich O. clarified that the recovery targets are about the rate of population increase rather than total population.
- Larry asked whether sound would be a part of the concern around oil and gas activities because they use acoustic devices. Nancy said there may be multiple effects, and sound effects may be on prey, passage features, as well as direct effects on whales.
 - Nancy clarified that in the economic analysis, the designation is noted as "unlikely" to affect activities during the 10-year period considered in the designation process. They are not able to project with any certainty or confidence what may happen beyond 10 years, so they use "unlikely to affect" rather than "will not affect" because there may be situations that arise in which the activity may be affected.
- Brian asked whether NOAA has considered how reductions in hatchery production impact the SRKW population. Nancy said she could not speak to that topic, but Teresa Mongillo (recently changed to Lawson) in her office works

specifically on SRKW prey issues. Corey Niles noted an upcoming webinar on January 8, 2020 about the topic through the Pacific Management Council.

Coastal Economic Resilience Workshop

Emily Wright provided an overview of the work of the group. Rod provided an overview of the workshop;

- Workshop will be held the evening of May 14, 2020 and during the day of May 15, 2020 at Grays Harbor College.
- The group is working with Dept. of Commerce with the hope of ensuring adequate funding. They may make additional requests to ports and cities along the coast for additional funds.
- The focus of the workshop is on the need for economic resiliency on the WA coast. See draft program outline for more details, available in meeting materials on the WCMAC website (link provided on the first page of meeting summary).

Discussion

- Garrett noted that the facilitation will be difficult to fit a lot of content into one day, especially if there is high attendance. Emily noted that as of now, Susan and she would be facilitating the event. The group is planning for about 50 people, but there may be an opportunity to expand. Additional facilitation support may be provided by inhouse staff through Ecology or other agencies. Garrett expressed concern that the robust conversation may not lead to well-formulated recommendations.
- Rod confirmed the dates are set.
- Dale asked whether the seafood industry and specifically processing and workforce challenges, including the implications around immigration, would be addressed. Brian noted that the labor issue extends beyond processing and that there is a need for migrant workers. The WA Farm Labor Association could provide some useful information to this extent, specifically around the Farm Workforce Modernization Act.
- Emily summarized that the group will continue planning the workshop with these considerations in mind and noted that all WCMAC members are invited to join the planning calls on the second Thursdays of each month at 9:30am.

Public Comment #1

There were no public comments during the morning session.

Proposed Grays Harbor Potash Terminal

Susan introduced three presenters Valerie Bond (BHP), Ken Smith (BHP), and Brian Carrico (WSP) to discuss the proposed Grays Harbor Potash Export Facility. Their presentation materials are available at the WCMAC website (link listed on first page of meeting summary).

Discussion

- The Port of Grays Harbor will retain ownership of the high-grade wetlands. They are not available as a mitigation bank; they will be maintained in protection. Garrett noted potential for mitigation just west of the proposed site.
- Garrett asked whether information from the engagement with the Quinault Indian Nation would be made public on December 20th. BHP noted that nothing will be published on December 20th if they are able to arrive at point they are seeking, but it is subject for further discussion.
- Mike Cassinelli asked whether they will hire unionized employees, train and hire local people, and pay a living wage during and after construction. BHP has worked with both unionized and non-unionized workers. They still need to develop their workforce planning. Health and safety of employees is priority. Some positions will require previous

BHP experience, but their operating practice is to employ local people, Indigenous people, as well as women. They will want to work with local institutions and schools to ensure workforce pipelines. BHP will hire 40-50 permanent full-time positions in Grays Harbor alone. There will be many more in the whole support system. They pay people competitively

- Larry will send WCMAC members the final comments submitted by the Crab Association. He believes there should be an environmental impact statement review.
- Doug asked how the 1.5-mile long trains compare to the current size and frequency. This would more than double the large trains currently moving through. There are efforts to mitigate potential impacts from this increase.
 - RD Grunbaum noted that Elma citizens will be at risk due to trains bifurcating the city. BHP is in dialogue with mayor of Elma about concerns and mitigation.
 - BHP noted that rail crossings and interactions are common across operations in the U.S. and Canada.
- Larry asked whether BHP will work with the Crab Association to resolve issues they feel have not been resolved. BHP's modus operandi is to be a good corporate citizen wherever they are. If there are issues/concerns, they want to hear and work with stakeholders to alleviate them as best they can. They have a complaints and grievances process and have a stakeholder register that they maintain and use to continue relations on a periodic and ongoing basis.
 - Randy noted that prior to the spotted owl ESA listing, the Port ran many more vessel transits than currently, so the increase will not be as much as what has been in the past.
 - Brian asked whether there is an escort vehicle requirement in the Port. Randy explained it is not a required escort, but it is a common safety practice.
- Rich D. asked to move second public comment period to this time to allow for members of the public to ask questions. No members opposed.

Public Comment #2

- Lee First, Twin Harbors Waterkeeper, shared information about the contaminated sites in the cities of Aberdeen and Hoquium that include the proposed mitigation site and two sites in or near the proposed footprint, which have not been cleaned up yet. BHP may not be held to the same public engagement process standard as typical cleanup processes.
- Arnie Martin, Grays Harbor Audubon Society, shared that the current mining process sounds like a solution-based process rather than mechanical. She asked whether BHP will use the Port's turning basin, which is upstream of the site, or build their own.
- Kathy Shiffer, Citizen from Montesano, Washington, noted that the trains will bifurcate Montesano and block access to the highway, which is how to access hospitals. She did not understand how they fill train cars if they are closed and why BHP would want to bring a terminal to a small port.

Potash Terminal Discussion Continued

- BHP noted that a solution-based process is one way for mining to occur. Grays Harbor is one of two sites being considered.
- Randy noted that both proposed sites have to meet the requirements for cleanup and there has been no identified direct threat to human and environmental health and safety. More information is available on the Ecology website.
- BHP has made available all materials and studies submitted to agencies on their website.

Elect Vice Chair

Garrett announced that three people were nominated for the Vice Chair position: Crystal Dingler, Doug Kess, and Mara Zimmerman. All three confirmed that they agree to be nominated. The Vice Chair holds a seat on the Steering Committee. Garrett noted that since Doug is on Steering Committee, if he becomes Vice Chair, there would still need to be someone added to the Steering Committee. If Crystal or Mara become Vice Chair, that would resolve both issues.

- Garrett presented two options considering that the three nominees were not announced prior to the WCMAC meeting: 1) either discuss and vote today with a quorum of 13 people, or 2) vote at the March meeting.
- Members preferred to vote without delay.
- Garrett read aloud the list of current Steering Committee members (Garrett, Doug, Rod, Jennifer, Katrina, Dale) and then called for a vote for Vice Chair. The results are as follows:

Nominee	Votes	Sum
Crystal Dingler	RD Grunbaum, Gus Gates, Crystal Dingler, Larry Thevik, Rich Osborne, Katrina Lassiter	6
Doug Kess	Doug Kess, Mike Cassinelli, Brian Sheldon, Dale Beasley	4
Mara Zimmerman	Dave Fluharty, Corey Niles, Jay Carmony, Mara Zimmerman	4

- Garrett abstained from voting.
- Garrett asked for disagreement of vote counting. No members disagreed.
- ! Crystal was elected as Vice Chair.

WCMAC Workplan

Susan introduced the WCMAC Meeting Plan document about topics to be covered in upcoming meetings and special workshops.

- Dale suggested inviting David Kaiser, NOAA, to present about federal consistency topics.
- Rich O. suggested inviting Robin McKade, head of PNW HAB Bulletin, to co-present on HABs. Rich agreed to take the lead on this agenda item.
- Gus asked about the date of the coastal hazards workshop. Sonni said likely end of May, but it is still flexible.

Other Issues

- Upcoming meetings are listed at the top of the meeting summary.
- Technical Committee meetings are scheduled to resume in February on first Tuesdays of each month at 1:00pm unless interested WCMAC members indicate a different time is needed.
- Mike C. provided an update on trout and Coho hatchery production activities from Sea Resources, a volunteer program that works with WDFW.

Washington Coastal Marine Advisory Council Meeting Summary

December 11, 2019 | 9:30 – 3:30
Port of Grays Harbor
111 S. Wooding St., Aberdeen, WA

Coastal Updates

- Pacific County MRC will hold a science conference on Saturday, May 16, 2020 and hope to stream it through an online platform.
- Grays Harbor MRC has received several responses to their RFP and have so far funded school field trips, a water quality workshop, and a second education project.
- North Pacific MRC is scoring grant applications. Proposals address a range of topics such as green crab predation by otters, an ocean science workshop, ROV youth competition, and research on razor clam gill disease.
- The Olympic National Park has been approved as a sentinel site for OA.
- Multiple grants are open or will soon open for freshwater restoration. The next WA Coast Salmon Partnership board meeting is on February 25, 2020.
- TNC's NOAA grant for the Community Catch Program ends in May and Marfish Eco has been contracted to do a market research study.
- There have been no major Harmful Algal Bloom (HAB) outbreaks and no closures of razor clam harvesting due to HABs in 2019
- Ecology and the Willapa and Grays Harbor Oyster Growers Association have agreed to form a working group to find an integrated pest management solution to control burrowing shrimp.

Work Group Updates



Economic Development – The Coastal Economic Resilience Workshop will be held the evening of May 14, 2020 and during the day May 15, 2020 at Grays Harbor College.



MSP Implementation – The MSP was adopted by NOAA and the current focus is on geographic information descriptions. Teresa Pucylowski and Casey Dennehy (Ecology) will use a survey to prioritize data gaps and research needs.



Summary of Decisions

- October Meeting Summary was adopted.
- Crystal Dingler was elected as Vice Chair.



Public Comment

- Lee First, Twin Harbors Waterkeeper, commented on contaminated sites in Aberdeen and Hoquiam.
- Arnie Martin, Grays Harbor Audubon Society, commented that the current process sounds solution-based rather than mechanical.

Presentations

Proposed Expanded Critical Habitat for Southern Resident Killer Whales on the WA Coast

Nancy Young (NOAA) presented on NOAA's proposed revision of critical habitat for killer whales. Public comments must be received by December 18, 2019.

- The petition is to consider coastal waters from Cape Flattery, WA to Point Reyes, CA. The proposed habitat excludes waters shallower than 20 feet deep and the Navy's Quinault Range Site and 10-km buffer.
- In developing the proposed rule, NOAA considered the geographical area occupied by species and habitat features essential to conservation; sound and chronic noise; economic impacts; national security impacts; and impacts to tribal sovereignty and self-governance.

Proposed Grays Harbor Potash Export Facility

Valerie Bond (BHP), Ken Smith (BHP), and Brian Carrico (WSP) presented on the proposed Potash Terminal in Grays Harbor.

- The proposal is to develop a marine export facility to transport potash for fertilizer use in overseas emerging markets with increasing agricultural demands.
- The proposed project consists of redeveloping the existing Terminal 3 industrial site and portions of adjacent parcels for unloading and storage of potash transported to the site via rail from the Jansen Mine in Saskatchewan, Canada, for shipment to international markets.
- The upland portion of the proposed project site will include rail unloading and storage facilities, a conveyor system for transferring potash from the rail unloading area to the storage facilities or directly to the shiploader, and administrative and maintenance buildings. The shiploader and new berth facility will be located directly west of the existing Terminal 3 dock located in Grays Harbor.



Public Comment

- Arnie Martin also asked whether BHP will use the Port's turning basin upstream of the site or build their own.
- Kathy Shiffer, citizen from Montesano, WA, commented that the trains will bifurcate Montesano and block access to the highway. Kathy also asked how they fill train cars if they are closed and why BHP would want to bring a terminal to a small port.

Photo credit: NOAA



Meeting materials can be found at:

<https://www.ezview.wa.gov/?alias=1962&pageid=37058>

WCMAC Work Plan

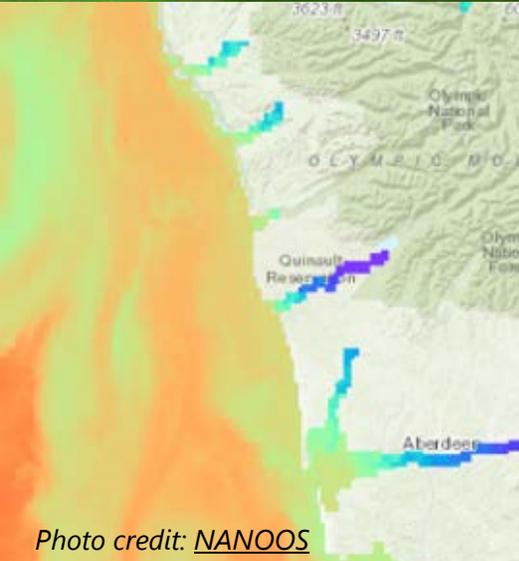


Photo credit: [NANOOS](#)



WCMAC Meeting Plan Document

Susan introduced the new document about topics to cover in upcoming meetings. Other ideas were:

- Inviting David Kaiser (NOAA) to present about federal consistency topics.
- Inviting Robin McKade, head of PNW HAB Bulletin, to co-present on HABs.

Other

- Technical Committee Meetings are scheduled to resume in January on the first Tuesday of each month at 1:00 pm unless interested.

Upcoming Meetings

- Wednesday, April 1
- Wednesday, June 10



Washington Coast Resilience Action Demonstration Project



Why RAD?

In 2017, the Ruckelshaus Center completed the *Washington State Coast Resilience Assessment* to examine interests, identify challenges, and provide recommendations to enhance hazards resilience across Washington's Pacific Coast.

Lessons learned from RAD will inform future efforts to secure long-term support for coast-wide initiatives. The Washington Coastal Marine Advisory Council (WCMAC) will help prioritize needs and actions highlighted by RAD.

The Resilience Action Demonstration Project (RAD) is an 18-month (2020-2021) pilot program to build coast-wide capacity to address coastal hazards issues.

How will RAD work?

The goal of RAD is to move community-driven resilience projects off the shelf and onto the shore by connecting communities with scientific and technical expertise, agency support, and funding. We will do this through:

- *Outreach:* We will gather input from Coastal Marine Resource Committees, Emergency Managers, and community members to understand local priorities and areas of concern.
- *Project Clusters:* Using input gathered during the outreach phase, we will promote an integrated, collaborative approach by linking projects and communities that are addressing related issues.
- *Agency Coordination:* We will help project clusters identify scientific, technical, and outreach needs and coordinate early agency involvement.
- *Project Refinement:* Framed by project clusters and agency input, we will facilitate the development of priority action items to leverage available resources.
- *Forward Progress:* RAD will support prioritized projects with seeking resources, grant scoping, and grant applications.

WCMAC Workplan

2/20/20

	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	12/19	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: fall of 2020
3 Trends in changing ocean conditions	Scheduled for June
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 (incl. Green Crab)	Benthic impacts of burrowing shrimp (Kathleen Sayce)
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 Spring of 2020
13 Building Local Capacity	
14 Watershed Protection	
15 Ecosystem Services Valuation	
16 Federal Consistency	Scheduled for June 2020
17 Harmful Algal Blooms (HAB)	Scheduled for April 2020
18 Ecology's Spill Program	
19 Ecological Indicators in Estuaries	Technical Committee will discuss
20 Regular Financial Updates on WCMAC's budget status	Will be periodically added to WCMAC's agenda
21 Sea Floor Mapping Update	
22 Recreation and tourism issues	
23 Ocean Acidification Sentinel Site	
24 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)
25 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
26	
27	
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
Priorities for 2020 are highlighted in green	

2020 WCMAC Meeting Plan

3/11/2020

<i>April 1, 2020</i>	
Topic	Presenter
• Green Crab	▪ Allen Pleus, WDFW
• Harmful Algal Blooms	▪ Anthony Odell, UW

Economic Workshop: May 14-15, 2020	
Topic	Presenter
•	▪
•	▪
•	▪
•	▪
•	▪

<i>June 10, 2020</i>	
Topic	Presenter
<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? ○ ORMA: applications and limitations 	▪ Ecology and NOAA's Office for Coastal Management (Bobbak and Brian Linn coordinating speakers)
• Update on N of Falcon	▪ WDFW (Ron Warren coordinating)
• 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)
• Discuss Proposed Recommendations from Economic Workshop	▪

<i>September 23, 2020</i>	
Topic	Presenter
• Adopt Recommendations (from Coastal Hazards, Economic, and Salmon workshops)	▪
<ul style="list-style-type: none"> • Invasive species <ul style="list-style-type: none"> ○ Green crab ○ Burrowing shrimp? ○ Other 	▪
• Adopt 2021-23 Biennial Budget Request	▪
• Discuss Proposed Recommendations from Coastal Hazards Workshop (if completed)	▪
•	▪

December 9, 2020	
Topic	Presenter
• WCMAC Officer Elections	▪
• Discuss Proposed Recommendations from Coastal Hazards Workshop (if completed)	▪
•	▪
•	▪
•	▪
•	▪
•	▪
•	▪

Coastal Hazards Workshop (Date TBD—Fall of 2020)	
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)
•	▪
•	▪
•	▪

Topics to weave into 2020 agendas:

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

EUROPEAN GREEN CRAB MANAGEMENT



Presented to the
Washington Coastal Marine Advisory Council

Allen Pleus

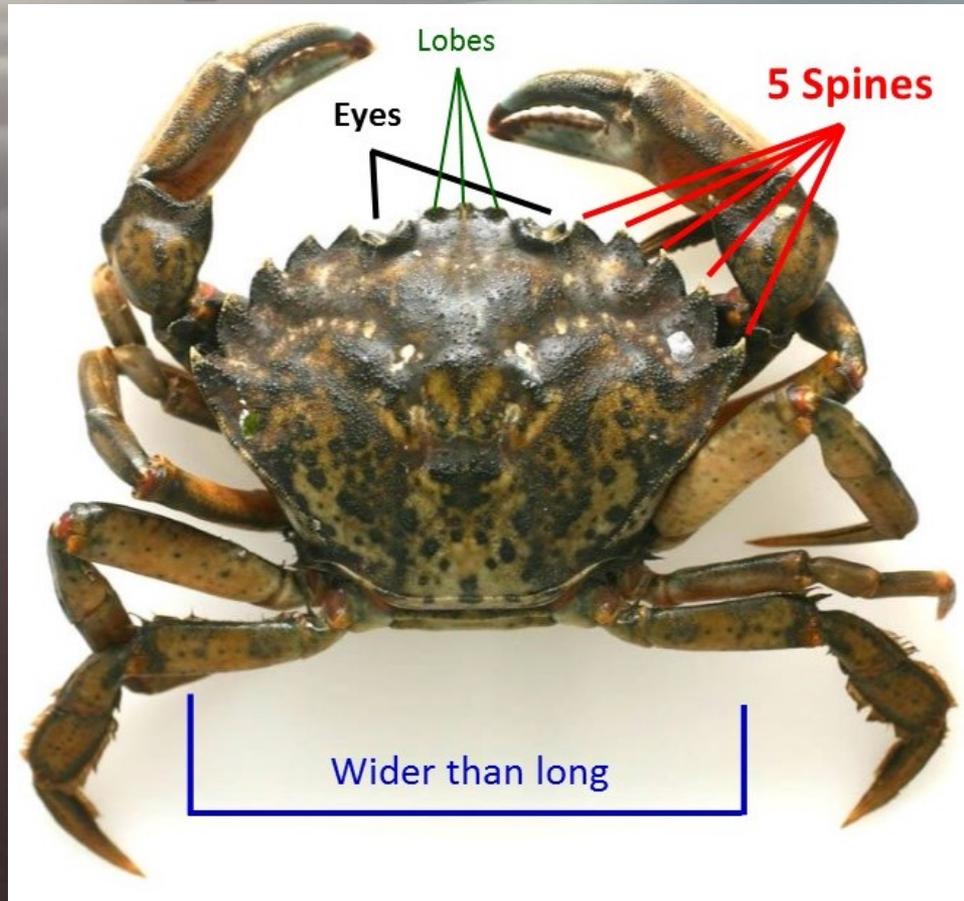
WA Dept. of Fish & Wildlife

April 1, 2020



European Green Crab

IUCN 100 of the world's worst alien invasive species



“Species for Control”
in Canada

WA Prohibited Level 1 Species: (1)(a) Species classified as prohibited level 1 pose a high invasive risk and are a priority for prevention and expedited rapid response management actions.

EGC Action Plan

- Allen Pleus (WDFW)
- Thomas Therriault (DFO)
- Renny Talbott (DFO)
- Emily Grason (WSG)
- P. Sean McDonald (UW)
- Jeff Adams (WSG)
- Todd Hass (PSP)
- Kate Litle (WSG)
- Joan Drinkwin (PSP
Consultant)

Salish Sea Transboundary Action Plan for Invasive European Green Crab



March 2019



Canada
FISHERIES AND OCEANS

Sea Grant
Washington

PUGETSOUND
PARTNERSHIP

Puget Sound Partnership provided
funding to develop and finalize plan

Action Plan Objectives

1. Collaboratively manage the response to EGC
2. Prevent human-mediated introduction and spread of EGC
3. Detect EGC presence at earliest invasion stage
4. Rapidly eradicate or reduce newly detected populations
5. Control persistent infested site populations to eliminate or minimize environmental, economic and human resource harm
6. Conduct research to develop increasingly effective adaptive management strategies



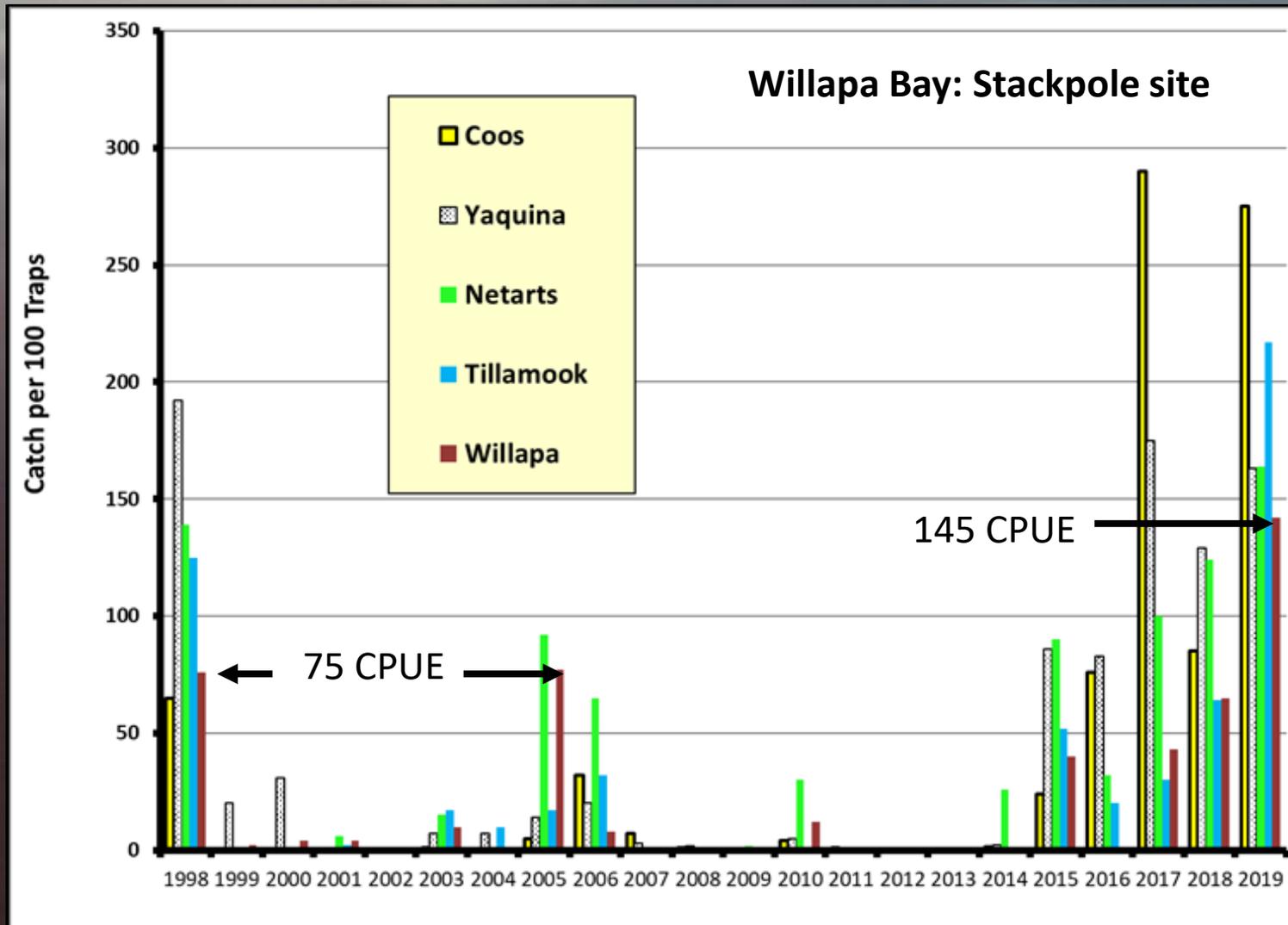
Imminent Danger

Salish Sea ECG Capture Location (2015-2019)	Number Live EGC Captured	CPUE (Crabs per 100 traps)	Traps
Sandy Point Heights (Lummi Bay)	23	95.8*	24
Lummi Sea Pond (Lummi Bay)	41	85.4*	48
Drayton Harbor	38	6.9	553
Dungeness Spit	222	2.5	8,885
Westcott Bay, San Juan Is.	6	0.7	895
Padilla Bay	6	0.6	1,085
Samish Bay	4 ^a	0	36
Sequim Bay	3	0.3	957
Lagoon Point, Whidbey Is.	3	0.7	412
Dungeness River	1	0.3	268
E. Jefferson: Kala Point & Scow Bay	2	0.2	900
<u>Chuckanut Estuary</u>	3	1.2	251

Coastal ECG Capture Location	Number Live EGC Captured	CPUE (Crabs per 100 traps)	Traps
<u>Tsoo Yess River (Makah Bay; 2015-2019)</u>	1,513 ^b	70.2	1,865
<u>Wa'atch River (Makah Bay; 2015-2019)</u>	1,046 ^c	30.0	2,342
Willapa Bay (2015-2019)	171 ^d	37.1	202
Willapa Bay (1998-2014)	1,336 ^e	9.6	1,494
Grays Harbor (2016-2019)	196 ^f	N/A	N/A
Grays Harbor (1998-2009)	291 ^g	0.7	1,522

* Catch Per Unit Effort (CPUE) = number of EGC caught per 100 traps deployed. East Coast - in high EGC density sites, CPUE has reached as high as 300 crabs per trap or 30,000 CPUE. In these situations, weight is generally used.

Imminent Danger



Imminent Danger



<https://www.youtube.com/embed/c-qNScN4kyU?start=49&end=102>

RCW 77.135.090 Emergency Measures

(1) If the director finds that there exists an **imminent danger** of a prohibited level 1 or level 2 species detection that seriously endangers or threatens the environment, economy, human health, or well-being of the state of Washington, the director **must** ask the governor to order, under RCW 43.06.010(14), **emergency measures** to prevent or abate the prohibited species.

Imminent Danger Threshold

Likelihood of Damage is Substantial:

- Biology – Aggressive & highly adaptable
- Environmental - Keystone habitat modifiers (eelgrass & salt marches)
- Economic – Shellfish predation to salmon and Orca recovery impacts
- Well-being – Loss of cultural natural resources

Probability of Establishment is High:

- Extensive habitat suitability
- High fecundity and Salish Sea larval retention
- Coastal propagule pressure threshold for establishment?

Lummi Bay & Drayton Harbor: “Tip of the claw”?

- Lummi Bay – 64 EGC/ 88.9 CPUE* (10x higher than other Salish Sea areas)
- Drayton Harbor – 38 EGC/ 6.9 CPUE (higher than Dungeness Spit at 2.5)

Imminent Danger Threshold

Willapa Bay & Grays Harbor:

- Willapa Bay detections in 2019 (145 CPUE) 2x higher than in 1998 (75 CPUE)
- Numerous shellfish grower reports of greater detections in operations than they remembered for 1998

Insufficient Policy and Management Resources:

- Salish Sea Transboundary Action Plan not adopted by all partners/co-managers
- No coastal management plan
- No statewide coordination resources

Proposed Response Actions

2020 – 2021 Proposed Action Areas

- **Lummi Bay:** Lummi Nation Lead – assess full scope/scale of EGC populations and reduce populations.
- **Drayton Harbor:** WDFW/Cooperative Team - assess full scope/scale of EGC populations and reduce populations.
- **Dungeness Spit:** USFWS Lead – continue reduction of EGC populations.
- **Makah Bay:** Makah Tribe Lead – continue reduction of EGC populations.
- **Salish Sea Region:** WDFW Lead – assess EGC presence in un-surveyed or under-surveyed suitable habitat.
- **Coastal Region:** WDFW/WSG Lead – assess scope/scale of EGC populations in Willapa Bay and Grays Harbor.

Proposed Response Actions

2020 – 2021 Proposed Action Areas (cont.)

- **Salish Sea Policy Coordination:** Puget Sound Partnership Lead – establish and coordinate a 12 to 15 member task force to oversee response actions and plan for long-term management.
- **Coastal Policy Coordination:** Washington Coast Marine Advisory Council Lead - to oversee response actions and plan for long-term management.

Governor's Proposed Legislative Proviso Budget

	Field Work			Science and Policy Coordination		
	FY 20	FY 21	Total	FY 20	FY 21	Total
WDFW	\$ 69,847	\$ 295,051	\$ 364,898	\$ 56,786	\$ 148,142	\$ 204,928
PSP	\$ -	\$ -	\$ -	\$ 121,604	\$ 97,718	\$ 219,321
Lummi Tribe	\$ 39,795	\$ 126,859	\$ 166,654	\$ -	\$ -	\$ -
Makah Tribe	\$ -	\$ 51,143	\$ 51,143	\$ -	\$ -	\$ -
WA Sea Grant	\$ 37,000	\$ 163,041	\$ 200,041	\$ -	\$ 47,459	\$ 47,459
USFWS	\$ -	\$ -	\$ -	\$ -	\$ 35,685	\$ 35,685
Total	\$ 146,642	\$ 636,094	\$ 782,736	\$ 178,389	\$ 329,004	\$ 507,393

FY20 = \$325,000

FY21 = \$965,000

Total = \$1,290,000

Total Legislative Funding to WDFW for FY21 = \$783,000*

*Not yet signed

Funded Response Action Areas

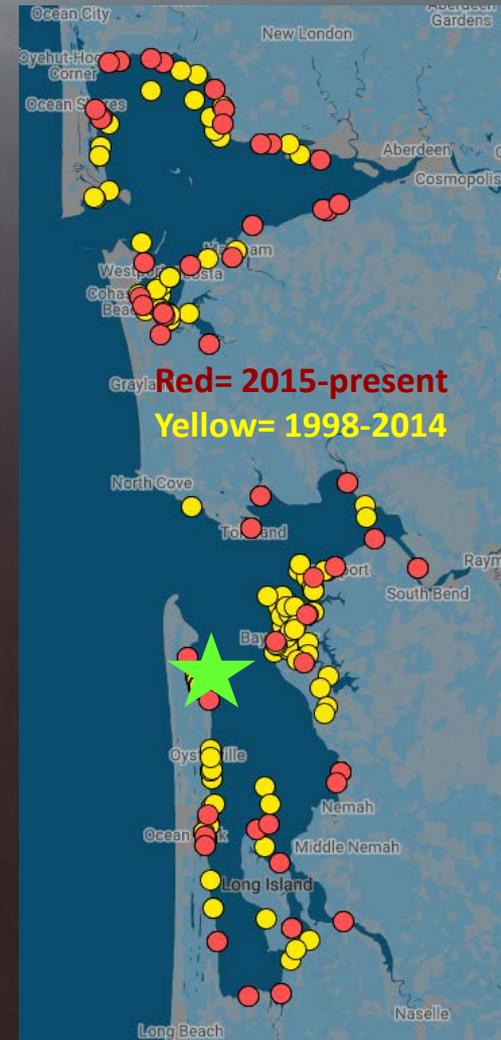


Coastal Region Action Plan

- ▣ Conduct baseline surveys including 1998-2001 survey sites
 - WDFW & WA Sea Grant leads (2 technicians)
 - Tribal and Shellfish Grower & local partner support
- ▣ Request WCMAC provide policy coordination on long-term planning

Coastal Overview

- × **1998 – 2001:** WDFW led monitoring and control program with bay-wide surveys in 1999 and 2000 (funding ended in 2001)
- × **2002-14:** Long-term monitoring at Stackpole site
- × **2015-19:** Stackpole and opportunistic efforts



Willapa Bay: Past & Present

Tokeland

At the Port of Willapa Harbor, Tokeland Marina and Kindred Slough

Bone River, Wilson Pt & Goose Pt

Reports from Elkhorn Oyster and Bay Center Farms

Stackpole

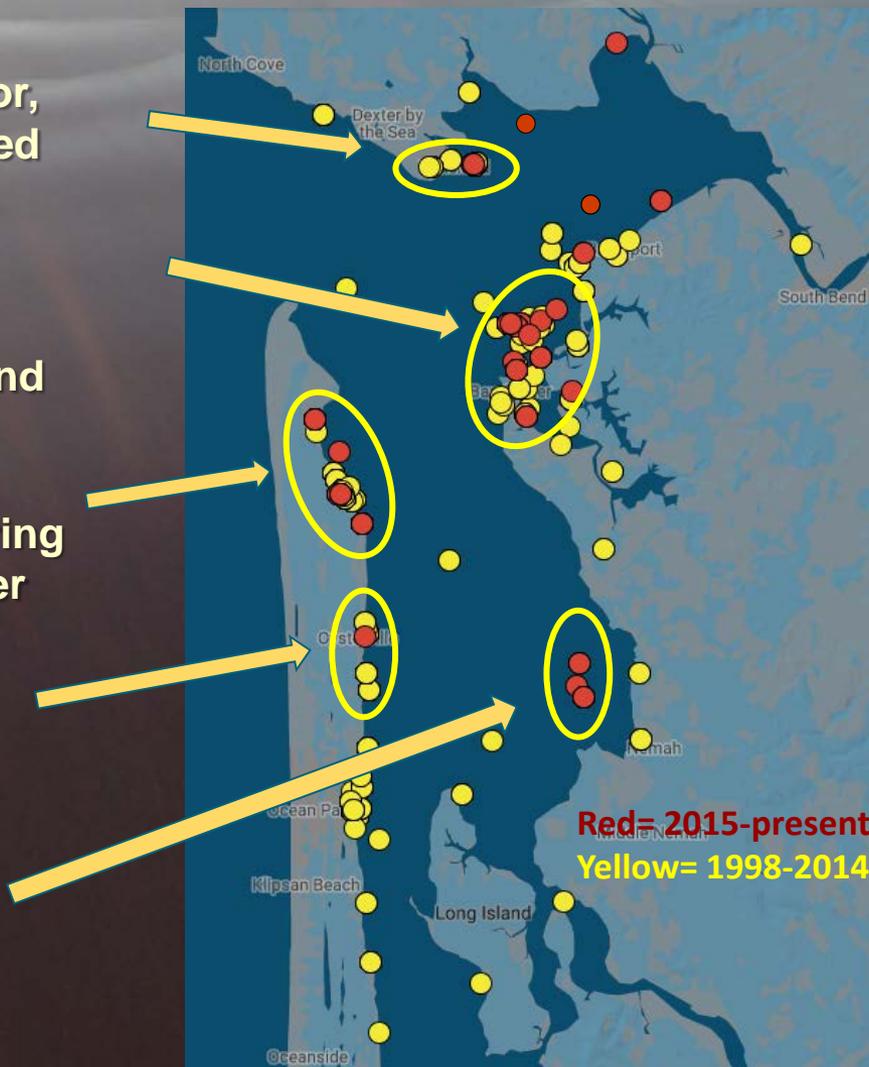
A. Randall captured 38 during trapping session in October 2019

WDFW Field Station

Drop off point for some EGC

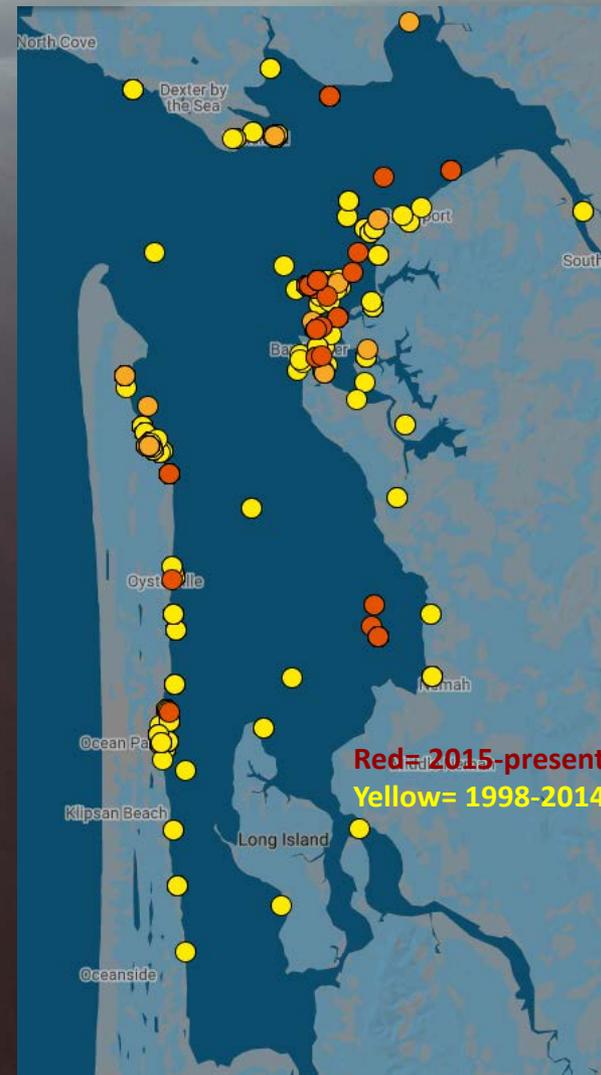
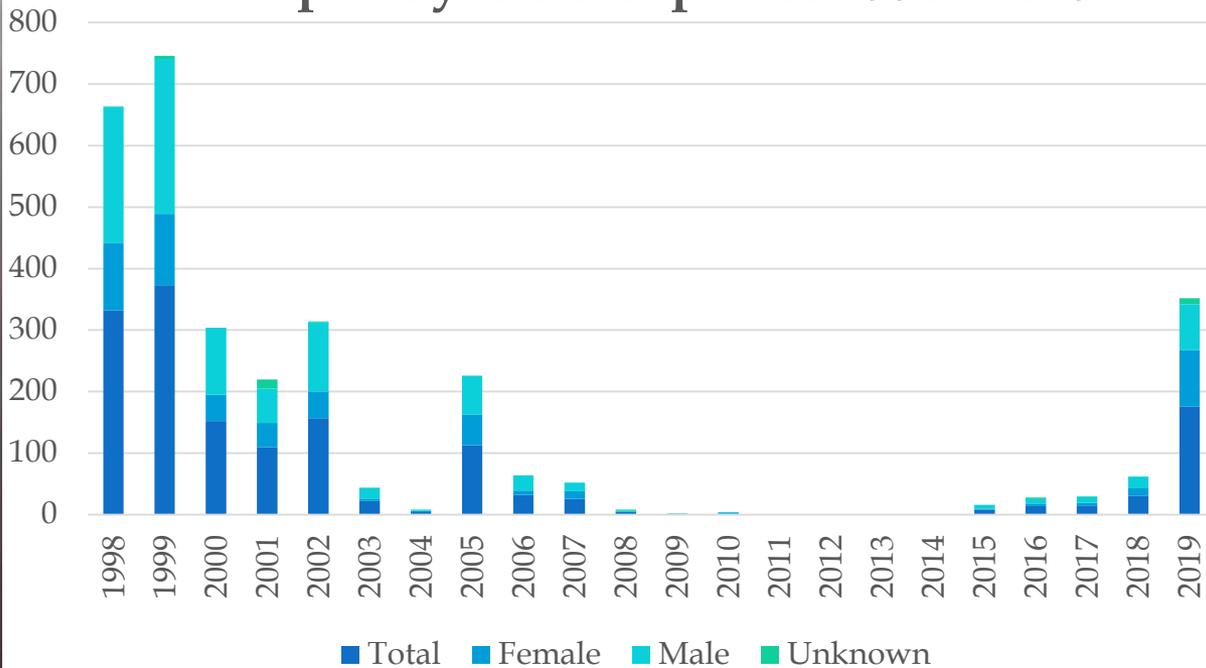
Nemah

Reports from Bay Center Farms and others



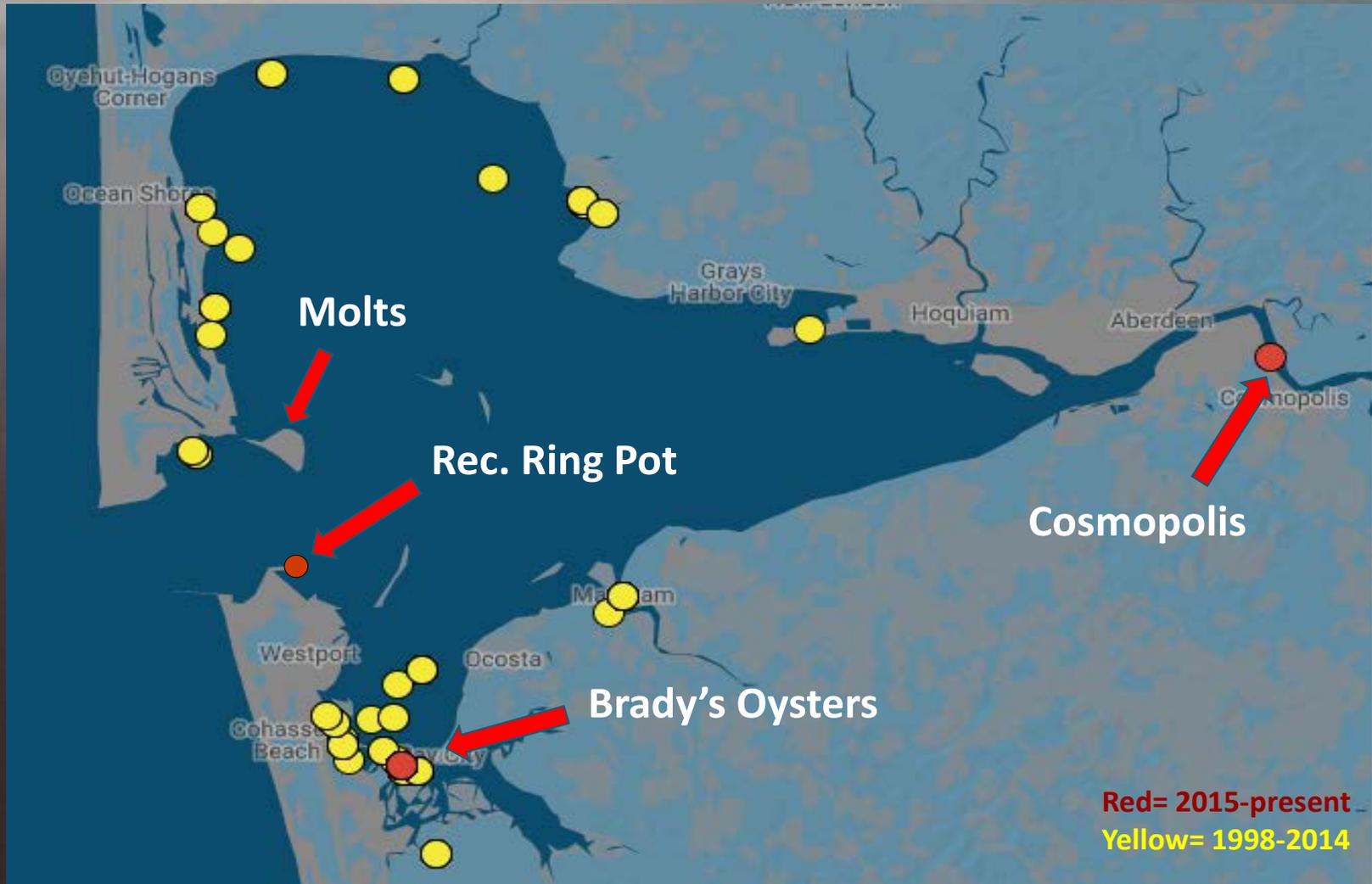
Willapa Bay: Past & Present

Willapa Bay EGC Captures 1998 - 2019



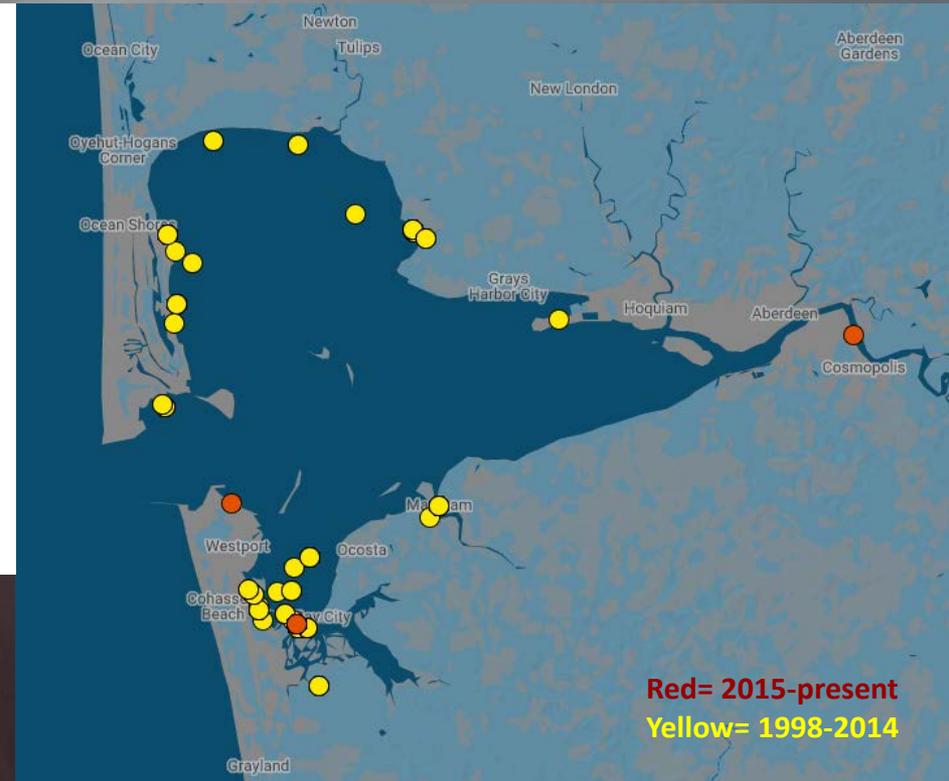
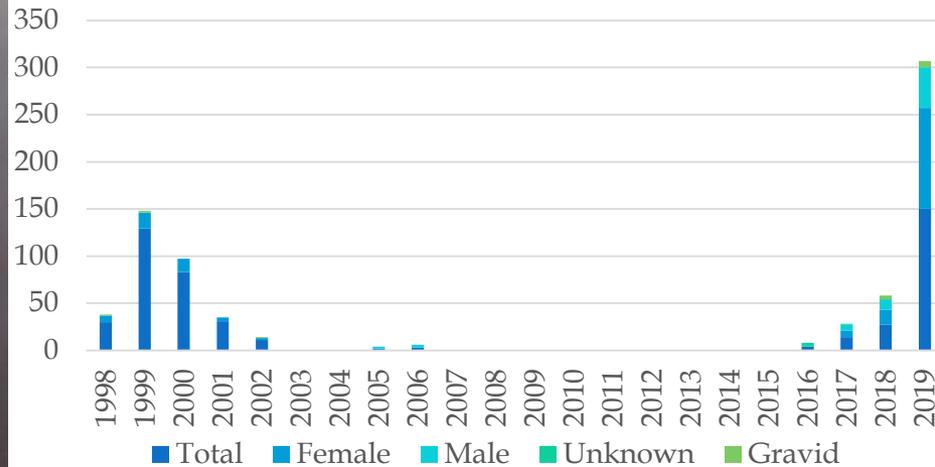
- × **1,572 total**
- × **996 males, 538 females**
- × *Graph does not indicate effort, counts only*

Grays Harbor: Past & Present



Grays Harbor: Past & Present

Grays Harbor EGC Captures 1998 - 2019



- × **484 total**
- × 65 males, 174 females
- × 2019: 107 females from Brady's Oysters!
- × *Graph does not indicate effort, counts only.*

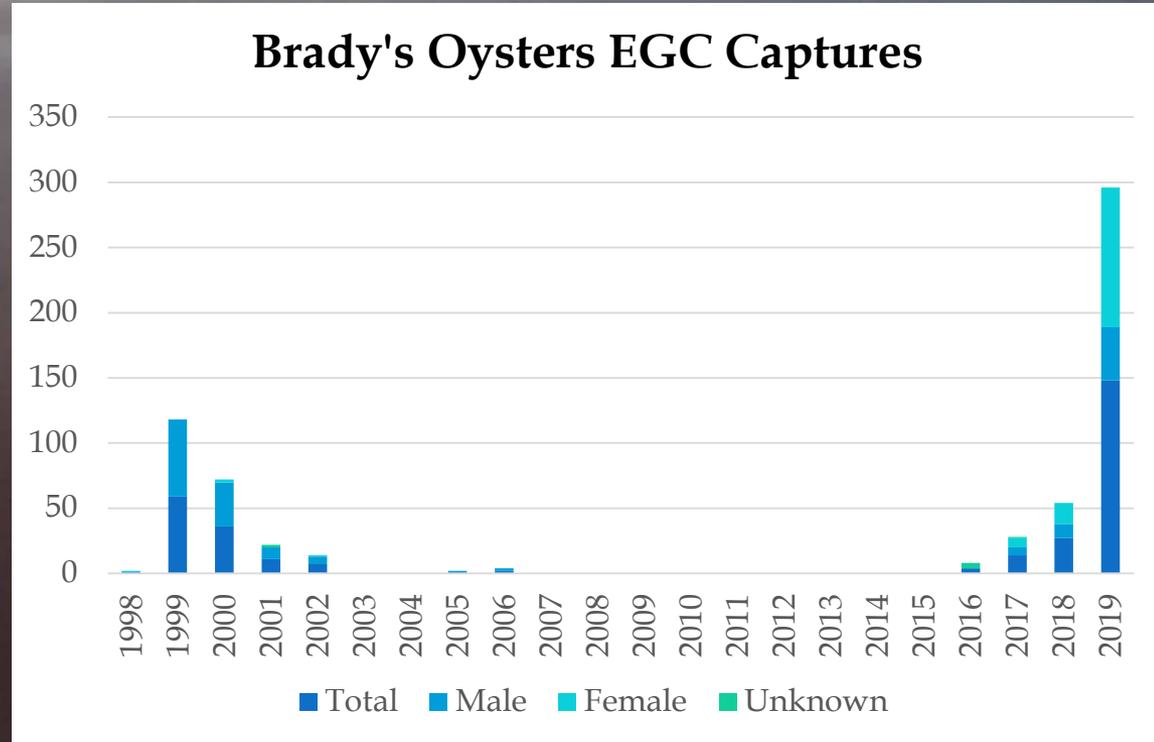
Brady's Oysters

× 1998-2019

- + 310 Total
- + 134 Males
- + 169 Females
- + 7 Unknown

× 2019

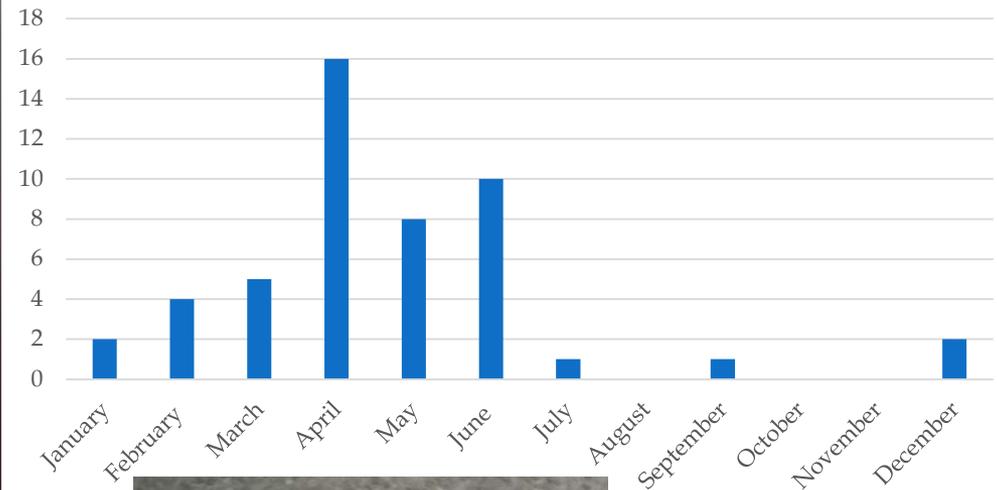
- + 148 Total
- + 107 Females (11 gravid)
- + 41 Males



Coastal Gravid Females

- × Most reports from shellfish growers
- × 51 total since 1998
- × 36 in Willapa Bay
 - + 2018 – 2019: 9 Total
- × 15 in Grays Harbor
 - + 2018 – 2019: 11 Total

Gravid EGC captures by month 1998 - 2019



Gravid Female

COVID-19 Impacts

- ▣ Governor's Stay Home/Stay Healthy Order
- ▣ Essential functions only
- ▣ Preparing for starting field work in May
- ▣ Economic impact to Shellfish Industry may limit survey support

Thank You!

EGC Management Funding Support by:

- WA Department of Fish and Wildlife
- Department of Fisheries and Oceans Canada
- USEPA National Estuary Program grants (2015-2018)
- WA State 2019 Legislature
- WA State 2020 Legislature
- Pacific States Marine Fisheries Commission
- WA Sea Grant (above USEPA & WA State Legislature funding)



Questions?

allen.pleus@dfw.wa.gov





DEPARTMENT OF
ECOLOGY
State of Washington

Washington Coast Resilience Action Demonstration project

Tressa Arbow, Washington State Department of Ecology
Jackson Blalock, Washington Sea Grant
Bobbak Talebi, Washington State Department of Ecology

- 
- What is the Resilience Action Demonstration (RAD) Project?
 - What is the status of the RAD project?
 - What should WCMAC expect next?



**What is the Resilience Action
Demonstration (RAD) project?**

Ruckelshaus Center Report

1. Establish A Coast-Wide Resilience Initiative To Enhance And Integrate Efforts

Key Leveraging Action: Create an integrated coast-wide effort to strengthen coastal resilience that is staffed by Washington Sea Grant, Washington State University Extension, Washington State Department of Ecology, and Washington State Emergency Management Division.

COHORT: Coastal Hazards Organizational Resilience Team



Washington State
Coast Resilience
Assessment
Final Report

Conducted by the
William D. Ruckelshaus Center

May 1, 2017



RAD project



18-month pilot to support local projects and test COHORT model

RAD project objectives:

1. Work with communities to jointly develop coastal hazards resilience projects
2. Evaluate the process
3. Report and make recommendations for advancing projects and COHORT



What is the status of the RAD project?

What is the status of the RAD project?

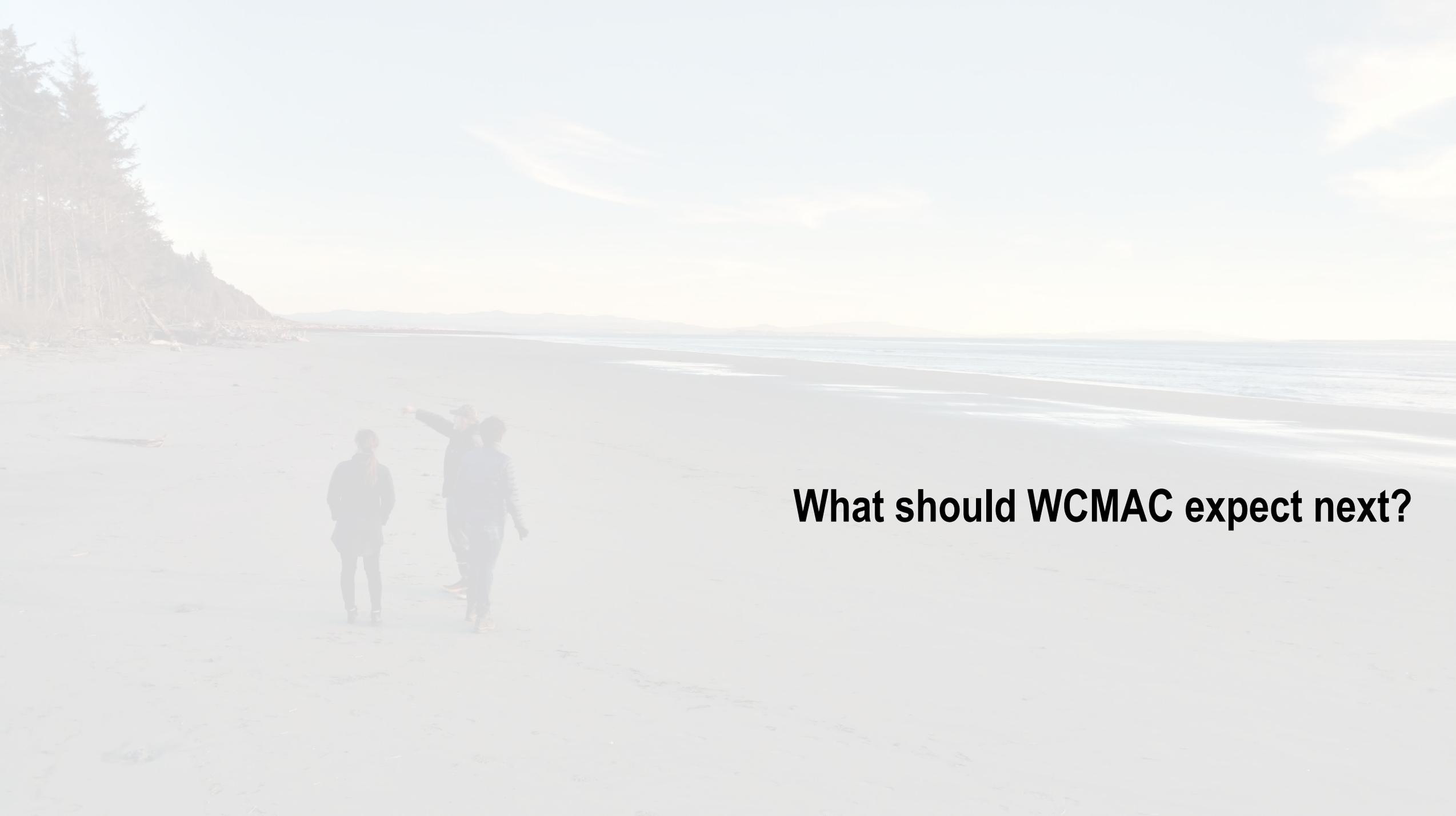
In progress:

- Develop “Resilience Project Guidelines”
 - What is a resilience project for the RAD project?
 - researching funding programs
 - ground-truthing through discussions with MRCs, EMs, jurisdictions, tribes
 - How do we jointly develop a resilience project that fits within these guidelines?

What is the status of the RAD project?

Next steps:

1. Work with communities to jointly develop coastal hazards resilience projects
 - informed by Resilience Project Guidelines
 - supported by additional capacity and resources (CHRN members, agencies)
2. Evaluate the process
3. Report and make recommendations for advancing projects and COHORT



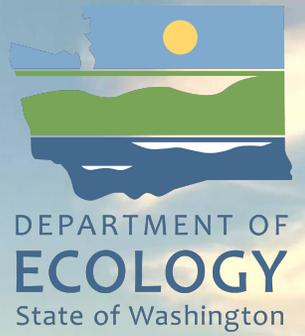
What should WCMAC expect next?

What should WCMAC expect next?

- WCMAC input has been invaluable
- Working with steering committee to determine best timing and processes for getting input from this group
- Transitioning from this “learning” phase into a “doing” phase



Questions?



Tressa Arbow, WSG Hershman Fellow
WA Department of Ecology
tressa.arbow@ecy.wa.gov

Jackson Blalock, Community Engagement Specialist
WA Sea Grant
jackbla@uw.edu



Marine Spatial Planning Data

Teresa Pucylowski

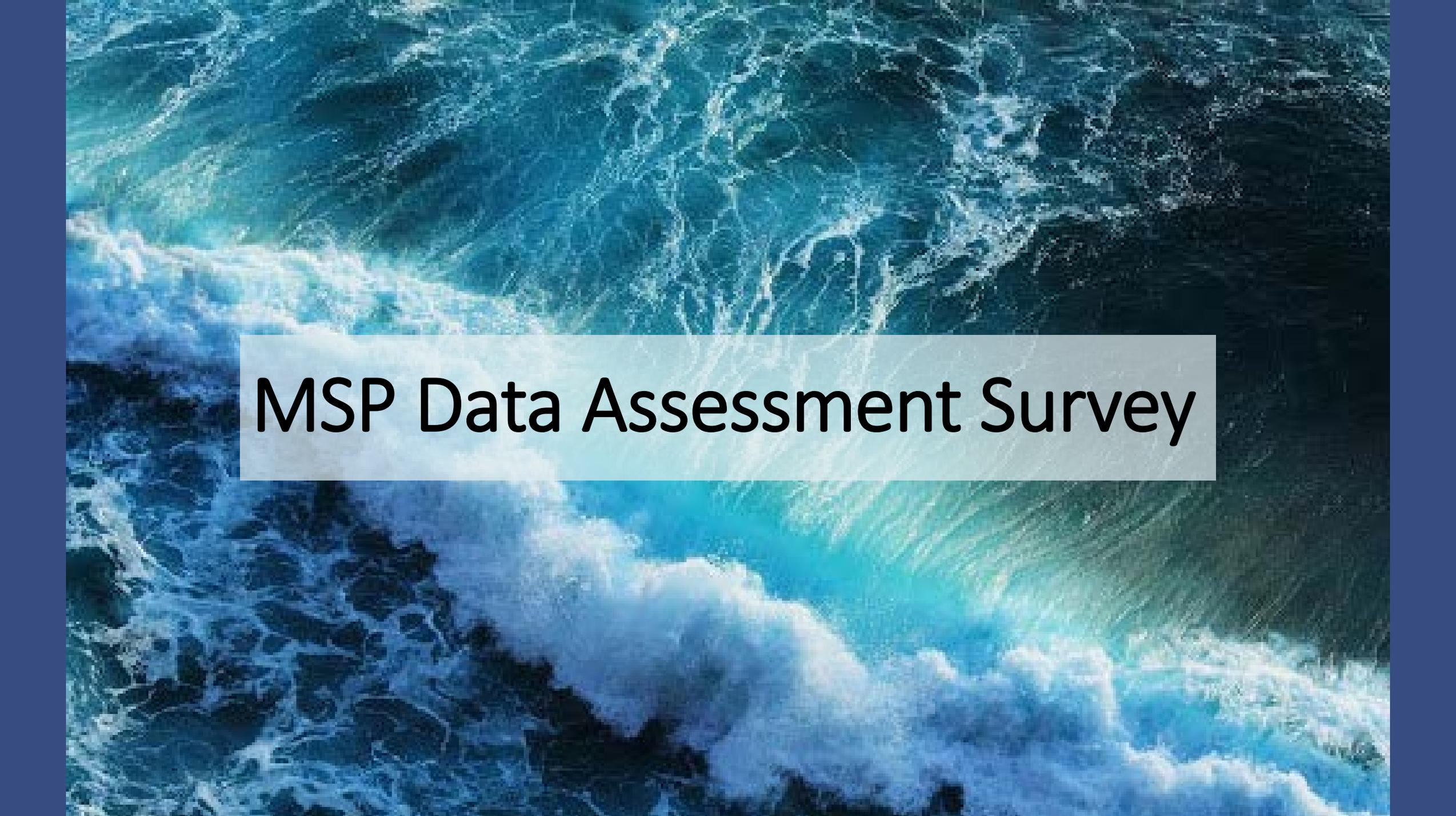
Washington Department of Ecology

WCMAC Meeting

April 1, 2020

Overview

1. MSP Data Assessment Survey
2. Update on Ecosystem Indicators Modeling
3. Questions

An aerial photograph of a river with white water rapids. The water is a vibrant blue-green color, and the rapids are characterized by white, frothy foam. The river flows from the top left towards the bottom right. The surrounding landscape is dark and rocky.

MSP Data Assessment Survey

Need to Reassess the MSP Data

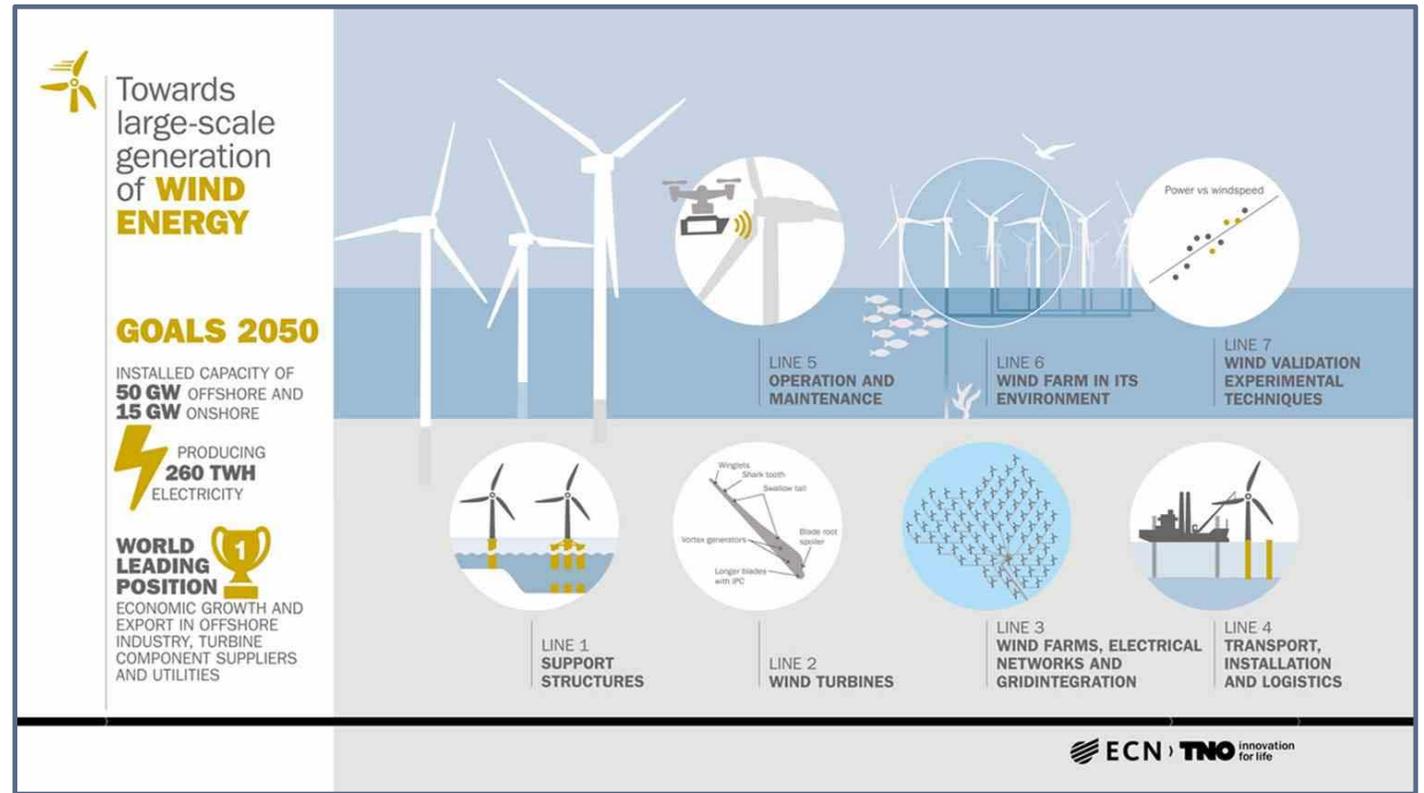
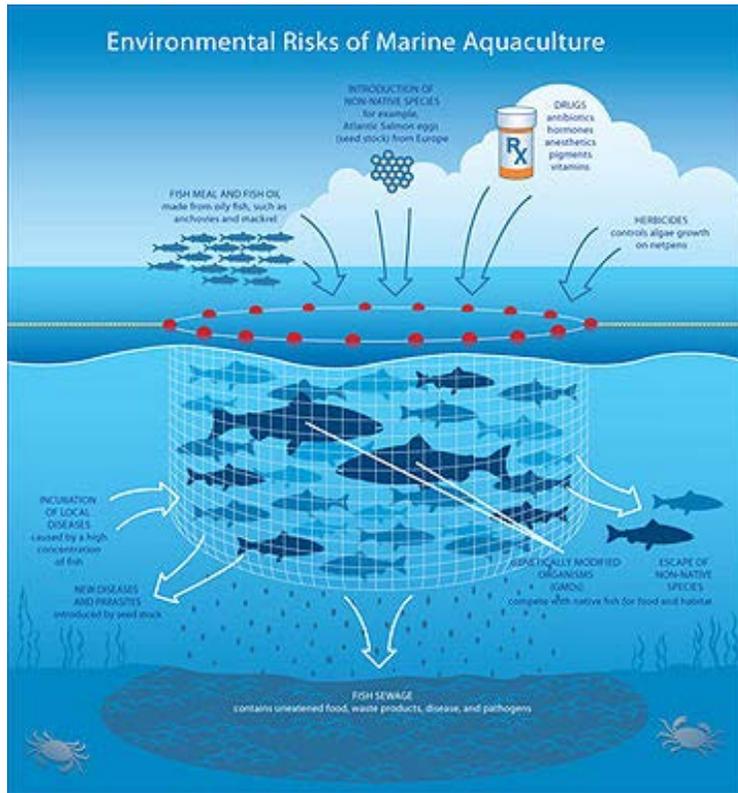
- Much of the latest data collected for the MSP is from 2015
- Want to be prepared for future development
 - New use industries changing rapidly



- **GOAL:** determine shared priority data & research needs for the MSP
 - Identify gaps, need for updates, or improvements in quality

Focus: Potential New Ocean Uses

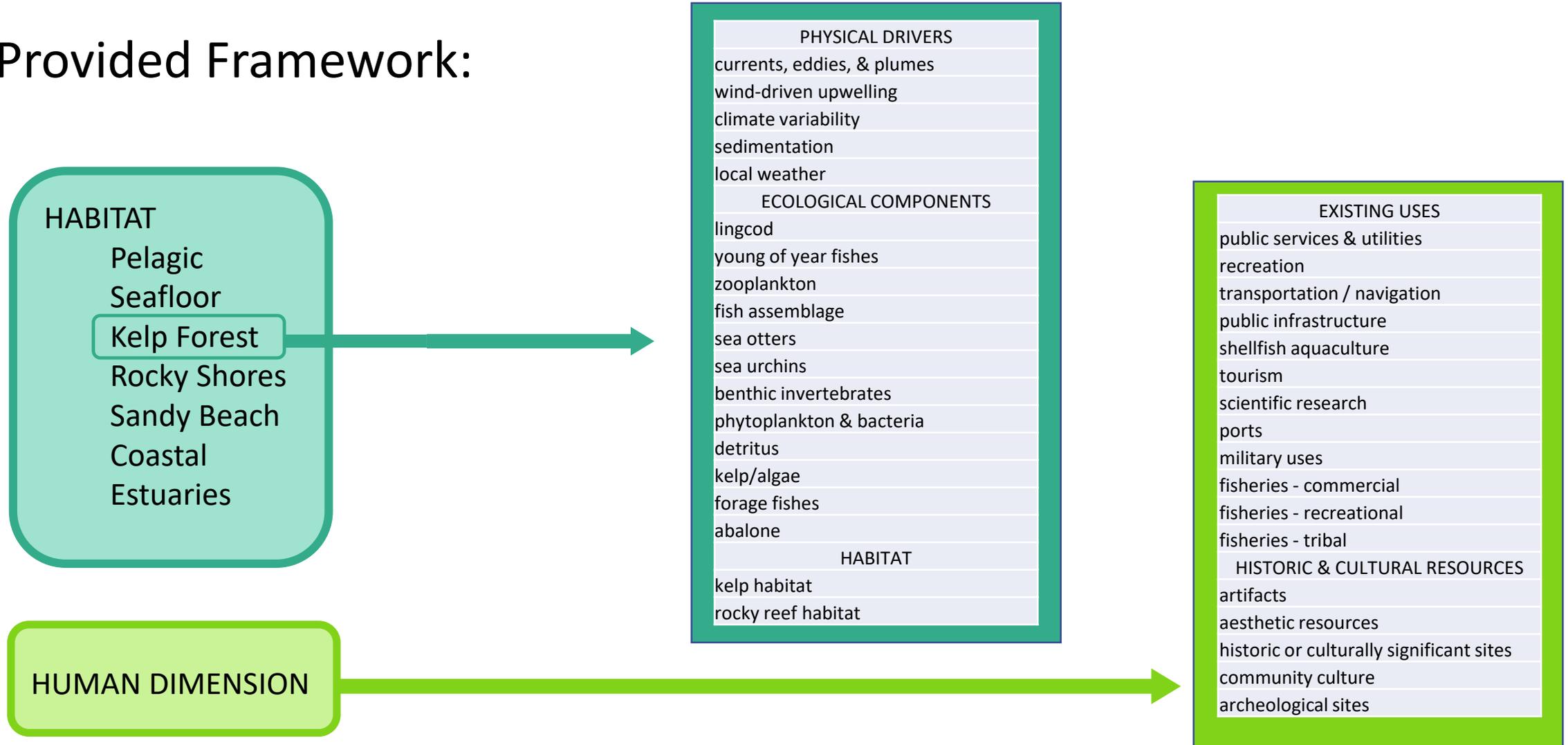
How will new ocean uses affect our existing uses and resources?



What data/research do we need to make an informed decision?

MSP Data Survey

Provided Framework:



Sample Survey Questions

Which data/research needs would you prioritize for determining the impacts from potential new uses?

(Describe your reasoning)

What type of information do we need regarding this component?

HABITAT: abundance, health, and/or trend

HUMAN DIMENSION: geographic extent, status, intensity, and/or value

[Optional]: Which specific datasets do we need?

Which evaluation criteria apply?

e.g. feasibility; coast-wide significance; relevant to current mgmt concerns ...

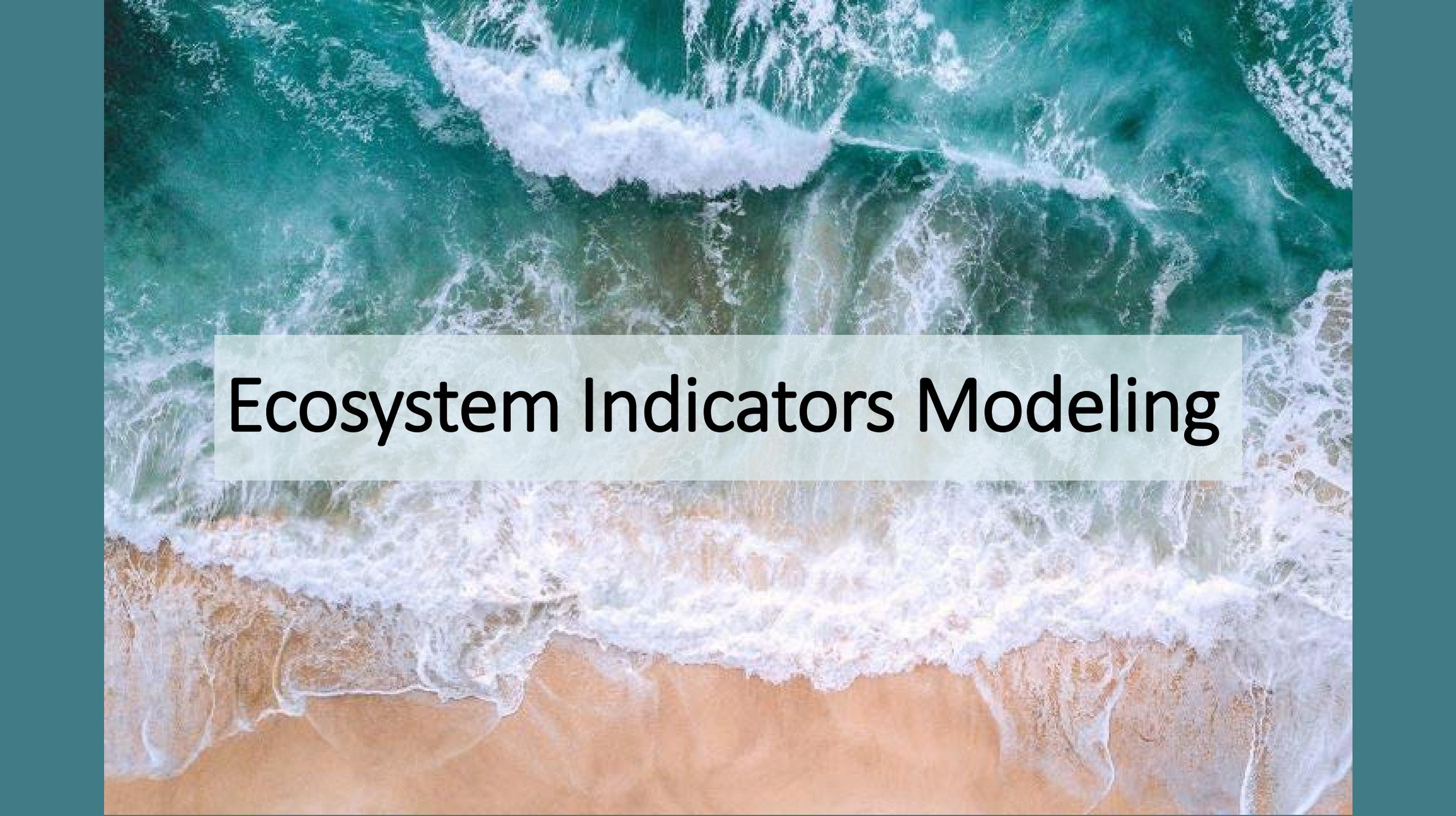
General Comments

Logistics

- Survey in Excel, but we are **open to alternative options** to complete the survey
 - e.g. 1:1 interviews or walk-throughs
- Survey deadline: **April 15th**
 - Also flexible if need be
- **Tutorial** on how to use the survey if needed

Next Steps

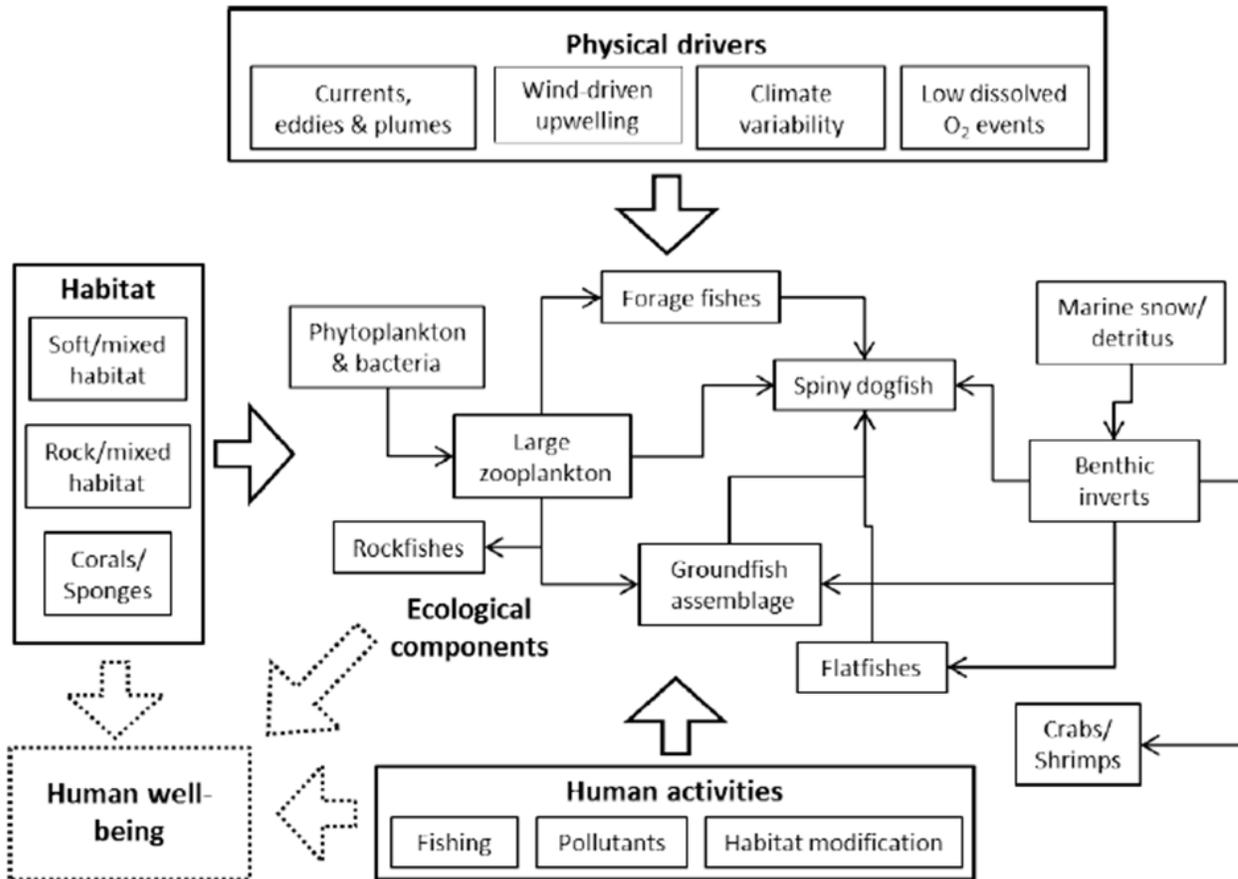
- Survey analysis will include:
 - Looking for common themes in general comments and data/research prioritization
 - Compile results and share
- Follow-up to survey will include the following objectives:
 - Additional detail on information gathered in survey (if needed)
 - Relate results to current management needs
 - Outline a process for continued data assessment
 - Who, how, and in what timeline

An aerial photograph of a beach with turquoise waves crashing onto the sand. The water is a vibrant greenish-blue, and the sand is a warm, golden-brown color. The waves are breaking in a rhythmic pattern, creating white foam as they reach the shore. The overall scene is serene and natural.

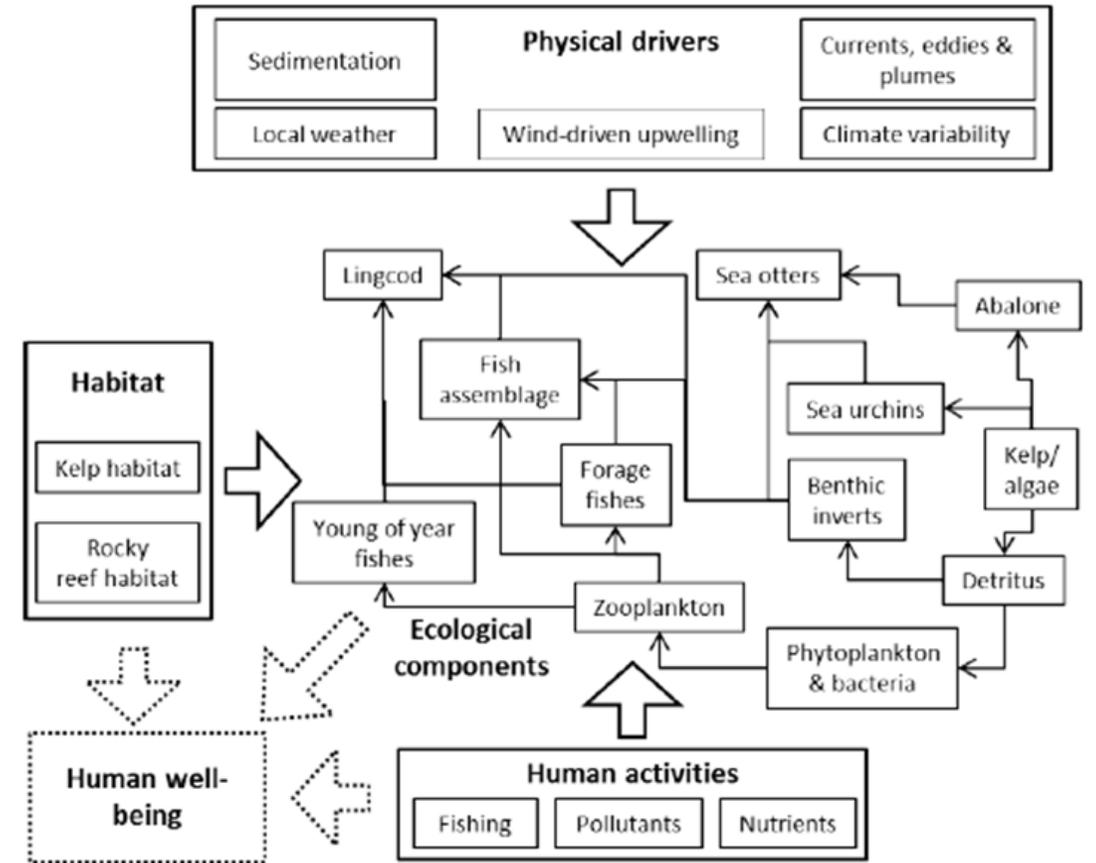
Ecosystem Indicators Modeling

Qualitative Network Models (QNMs)

Seafloor Habitat



Kelp Forest Habitat



Project Deliverables

Robert Wildermuth (PhD student at Dartmouth) will complete the modeling work & deliverables

- **Summary document** from the 'Initial Meeting'
- **Qualitative Network Models** & R code associated with analysis
- **Final report** for the Washington state agency audience
 - This will include a data repository, documentation of reasoning and decision-making, and modeling instructions.
- **Draft manuscript** for peer-reviewed journal article
- **Presentation** to the Washington Coastal Marine Advisory Council (WCMAC) /MSP staff and other interested parties
 - Video recording of a presentation and presentation materials

Planning for 'Initial Meeting'

Meeting of experts & state agency staff early on in the project to discuss:

- Refining indicators and conceptual models
- Inclusion of socioeconomic indicators
- Hand-off strategy

Logistics & Details

- Contract submitted to DNR last week
- Project timeline: Aug 1, 2020 – Feb 2021
- Travel for Robert to come to WA twice
 - During planning stage and when models are complete

Questions?

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