

# Maine Climate Council Coastal and Marine Working Group (CMWG)

Tuesday, March 19, 2024

12:00 PM – 4:00 PM

Island Institute, 386 Main St., Rockland

## Meeting Summary

The Coastal and Marine Working Group of the Maine Climate Council met at the Island Institute in Rockland, Maine. The meeting included a presentation from CMWG member Dr. Michelle Staudinger about her climate adaptation research and an overview and discussion of the CMWG subcommittee work, which was finished in early March and combined into a draft set of strategies, recommendations, and actions to share with the Climate Council later in the spring. Members were present in-person and on Zoom. See the appendix for a list of meeting participants. Slides from the meeting can be found [here](#).

### Objectives

- Provide an opportunity to learn about current work assessing climate change impacts
- Hear about recommendations coming out of SEA Maine and how that may intersect with our work
- Review and discuss initial draft recommendations from the subcommittee work

### Welcome

Co-chairs Curt Brown and Carl Wilson gave a brief welcome and overview of the Coastal and Marine Working Group's (CMWG) progress. The CMWG has made substantial progress developing recommendations to share with the full Climate Council and is in a good position to finish the recommendations on schedule in the late spring. The facilitator, Laura Singer provided, an overview of the meeting objectives and agenda. Laura discussed the Maine Climate Council (MCC) meeting the week prior (recording and meeting materials: [MCC – March 14 Workshop](#)) and the draft [Engagement Plan](#) developed by UMaine to support the Climate Council's equity goals.

### Presentation: Tools and approaches to implement climate adaptation in Maine's coastal and marine socio-ecological systems

Laura introduced the first presenter, Dr. Michelle Staudinger, who is an Associate Professor in the UMaine School of Marine Sciences at the Darling Marine Center. Her lab focuses on assessing climate impacts and developing climate adaptation solutions for coastal and marine resources, primarily in the Northeast United States. Prior to her position with the UMaine, Michelle spent a decade working for the U.S. Geological Survey as the Science Coordinator of the Department of the Interior's Northeast Climate Adaptation Science Center at the University of Massachusetts Amherst.

- Dr. Staudinger's position is partially funded by the Maine Department of Marine Resources. The creation of the position was recommended by the original Maine Climate Plan and explicitly focuses on climate change and fisheries research.
- Dr. Staudinger has been thinking about connections among her prior projects and how they can help the CMWG think about implementing the strategies that are currently under development.
- Dr. Staudinger discussed three projects from her previous position:

- Northeast regional climate synthesis to inform State Wildlife Action Plans (SWAPs)
- Using natural infrastructure to increase coastal resilience to sea level rise and storms
- Learning about underused seafood species and evaluating their market potential in a changing climate
- Her experience with climate vulnerability assessments and developing strategies to monitor, protect, restore, and manage coastal resources will be relevant to the CMWG's goals
- Discussion about State Wildlife Action Plans
  - The next versions will be completed in 2025 and must incorporate climate change
  - One challenge with the SWAPs is that there is a data mismatch. States have access to a ton of data but struggle to use it effectively.
    - This may also be true for the implementation of the Maine Climate Plan.
  - Dr. Staudinger and her partners created a climate data synthesis to inform the SWAP creation and clarify what data is available and how it could be used. The report will help people understand what changes are expected to happen for specific species and where they will occur. The report also evaluates data at multiple scales.
    - The report will be released in late March
  - There will be presentations at the NE CASC Webinar on Wednesday, April 10 at 4:00 pm and the NEAFWA on Wednesday, April 24 at 8:00 am
    - Dr. Staudinger encouraged CMWG members to contact her directly with questions if desired.
- Discussion about using natural infrastructure to increase coastal resilience
  - Similar to the implementation of the climate plan, one project goal was to help prioritize actions to increase climate resilience and climate resilience
  - The project partners summarized info about four coastal habitats that can be used as natural shorelines, especially for SLR and coastal storms, on both the Atlantic and Gulf Coasts
    - Tidal marshes
    - Beaches and barrier islands
    - Biogenic reefs
    - Mangroves
  - Their results discuss ecosystem services and cost-benefit values to socio-ecological systems for each type of natural infrastructure
  - The ecosystem services context helps explain the value of taking a restoration action and using natural solutions
- Discussion about increasing local food production, specifically by using underused seafood species. This relates directly to one of the original Climate Council Goals
  - Described seafood species that are climate resilient
  - Also defined "underutilized species"
  - Evaluated 47 species/fish stocks and identified 7 species and 8 stocks that could be considered "underutilized"
  - Created indicators to get a resilience score for the species
    - Only one species had high confidence for its long-term resilience to climate and fishing pressure (scup)
    - Some were middling
    - Some had low confidence – better for short-term market expansions
  - Repeatable method
  - Created species profiles for easy communication – what makes the species climate smart
  - Website: <https://www.ourwickedfish.com/>

### Questions:

- *Question:* How repeatable is the underutilized species project for state-managed species?
  - o Might depend on data and how well the species are managed. Are quotas being set and used? It might be tricky for species without quota
- *Question:* Are people using the website? ([www.ourwickedfish.com](http://www.ourwickedfish.com))
  - o It got a lot of traffic during the pandemic. The owner worked with the Eating with the Ecosystem Group (<https://www.eatingwiththeecosystem.org/>)
  - o Looking at marketability of species and why consumers make the decisions that they make
  - o She had funding to get people to share recipes for locally caught seafood via Instagram. Prizes for engagement.
  - o The website creator is working on public engagement.
  - o Also evaluating seafood restaurants to see what they are serving. Salmon, shrimp, and tuna are the most often used species, and are often imported. High end restaurants have an opening to be novel by using local species that are caught locally or are underused.
  - o The website/non-profit was created by Dr. Staudinger's student as they finished their masters
- *Question:* about the natural infrastructure project
  - o Has there been analysis in the report or after about farmed or wild kelp for wave attenuation?
  - o Not in the study, which wrapped up around 2018.
  - o UMaine is interested, and could use this report to help with the framing
- Follow-up: interesting work that could be done to look at the relationships among species that can work together to help create overall shoreline resilience.
- CMWG members were invited to join the DMR seminar on Friday where Michelle will be doing a more detailed version of her seminar

## Discussion about the SEA Maine Roadmap – Linking to CMWG

SEA Maine website: <https://www.seamaine.org/>

Sea Maine roadmap: <https://www.seamaine.org/wp-content/uploads/2024/02/SEA-Maine-Roadmap-full-version.pdf>

Sea Maine videos: [https://www.youtube.com/playlist?list=PLaYwSMftjW9wG90\\_AX3jhS6jeDDXoqC3o](https://www.youtube.com/playlist?list=PLaYwSMftjW9wG90_AX3jhS6jeDDXoqC3o)

### SEA Maine update:

- Curt Brown was a co-chair of the SEA Maine Steering Committee. He briefly discussed the project, which was recently completed.
- SEA Maine started in 2018
  - o Five-year, participant-driven project
- It created a roadmap for the future of Maine's seafood
  - o Planning but not implementation
- The project started before COVID, but COVID emphasized how important the work was.
- The people involved in the process were a strength and Curt was proud of the final product

### Questions/Discussion:

- *Question:* What are the recommendations from SEA Maine that could apply to the CMWG?
  - o A diverse marine economy is a good marine economy

- More so historically, and we are building it back up. Big challenges coming.
  - Strength – lots of great people and leaders working on these projects (both SEA Maine and the Climate Plan). Good people doing amazing things and we can benefit from them.
  - Chuck (from the CMWG) looked at the NERACOOS buoy data and realized that density and salinity are at all-time lows. Brought to the attention of DMR and UMaine. People are working across silos to address problems.
- Comment from the chat: [the SEA Maine report] is very nice! Some of us have been advocating for a similar land agriculture roadmap for several years.
- *Question:* Coming out of SEAMaine- how many farms have the potential to grow and provide more jobs? Much of the activity is still focused in the urban part of the state. How does access and opportunity look statewide?
  - Geography is a challenge and opportunity. Sara Rademaker grew from tiny to a big facility in Waldoboro.
  - SOPO Seafood has also grown a ton in recent years
  - Growth takes time, a village, and luck.
    - For Ready Seafood, grant writing and outside funding from a research and development bond helped them grow.
  - State funding to help small-scale businesses grow is important. Small businesses sometimes need help to get over small humps that are preventing their growth.
  - Tons of potential in Maine! Lots of hurdles, too. How can we work together as a state to help small marine economy businesses thrive?
- *Question:* Thinking about community resilience and fishermen pivoting to new industries. Are they looking at employed work or entrepreneurship? There aren't many employment opportunities downeast. How to support entrepreneurs in the rural parts of the state?
  - Lots of lobster processors are in rural Canada. There are opportunities. Telling stories is a huge thing. Geography can be an asset for telling stories about products and places.

## Overview of Subcommittee Work

- Fisheries/Aquaculture
- Working Waterfronts/Infrastructure
- Monitoring
- Coastal & Marine Habitats/Blue Carbon

Carl and Curt emphasized their appreciation for the CMWG members for working hard on the deliverables and for making the time to participate. We are helping the climate council by doing thorough work. A representative from each subgroup gave a short summary of their work and high-level recommendations.

### ***Fisheries/Aquaculture:***

- Major themes discussed in the slides include:
  - Need for funding and staff to enhance and continue monitoring programs
  - Need to identify data gaps and fill them
  - Need to coordinate data sharing at the scales needed for decision-making.
- The group had productive and focused discussions
  - They prioritized updating Strategy E Recommendation 4

- Revisited themes to carry over from the first plan: long-term data at local scales, ecosystem approaches, evaluating policy and regulatory structures
- Started by going through the original plan and adding “fisheries” to the “forest” sections. Lots of good ideas in the forestry world.
- Assessing vulnerabilities and trying to get them to a Maine-specific scale
- Discussing equity and helping specific communities
- Working with DMR to get better data to help with fishery management and diversification
- Increase local seafood marketing: “30 by 30” food goal. 30% locally by 2030

#### **Questions/Discussion:**

- *Question:* How do these ideas resonate with non-DMR CMWG members?
- *Question:* Will DMR take the lead in trying to expand quota access to new species?
  - Request for quota needs to be highlighted
  - There is an opportunity and need to collaborate about this
- The habitat group also started by looking at the forestry recommendations
- *Idea:* the forestry recommendations worked so well because there was industry and state government alignment around federal funding opportunities. The plan prepared people to go after the funds.
  - *Question:* Will the CMWG work help the marine world do a similar thing?
- *Question:* What does industry think about long-term data? Two pieces of info: near-term (3-5 year) climate for business planning, and long-term data for management decisions. How to do climate-informed management?

#### **Working Waterfronts and Infrastructure:**

- Met almost weekly in January, February, and early March
- Thanks to the people who participated, both CMWG and from the public.
- Top items:
  - Public WWFs in the state – need certain things for adaptation
  - Private WWFs in the state – need different strategies and support
  - How to support WWFs to adapt to SLR, build resilience to increased storm surge
  - How to support WWFs and their ability to support marine-based businesses that are affected by climate change
    - Need WWFs to adapt and also need businesses to adapt
  - Multiple recommendations: inventories, assessments, municipal support for zoning updates, municipal capacity support, and many more.
  - Definitions – what is a “working waterfront?” – the group tried to include diverse access types, like walk-in intertidal access. All types of access are being impacted by gentrification and sea level rise
- Two main goals
  - Protecting 30% of WWFs by 2030. Various strategies.
  - Big investment in both public and private WWF infrastructure. \$25 million/year for both categories for the next four years.
    - Big scale recommendation.
    - We need to respond to storms and stay resilient and strong investments could provide great long-term benefits.
- Climate-driven gentrification is another thing contributing to the need to preserve access. We need to act to make sure we keep access.

- Other thread: fisheries and aquaculture are important, but other forms of WWF are also important. The group tried to support CF/AQ and also the broader community, like boat yards.
- Zoning is an important tool and WWFs need to be able to work in the coastal zone. WWFs might need exceptions to work in coastal spaces even if other uses are limited.
- Making sure resilience fits uses.

### Questions/Discussion:

- *Question:* Does this group have an equity recommendation?
  - o Not yet. Haven't discussed the rest of the template in detail.
- *Idea:* talk about protecting WWFs as "conservation" – a frame to help others think about what we are doing and to make it make sense and mesh with their goals
- Note about Canadian wharves: many are private. If we invest in public infrastructure, make sure we invest in maintenance. How will the facilities be maintained in a reasonable way over time?
  - o Remember to include other agencies, like DOT, in the discussion about creating and maintaining access
- Infrastructure is more than just man-made built structures
  - o Some waterfront infrastructure doesn't have to be on the water. Make sure those uses can exist in less-vulnerable areas. This is in the subgroup's strategy recommendations.

### Monitoring:

- Worked on strategy E, recommendation 4.
  - o Need to ID data gaps and create new monitoring programs to fill them
    - Lots of detailed ideas here, but the group kept the template info fairly high-level
  - o Need to have public/private collaborations to do monitoring
  - o Talked to MCSIE (Maine Climate Science Information Exchange) – recommend new data hub for sharing data at varied scales, especially for regional needs. Recommending regional data slides.
    - MCSIE is at UMaine
    - The Casco Bay Community Intertidal Data Portal (<https://community-intertidal-data-portal-gpcog.hub.arcgis.com/>) is a great example of locally-focused data. The Southern Maine Planning and Development Commission (SMPDC) also has good local data. There will never be just one data source.
- Worked on Recommendations 1 & 3, too.
  - o Need for lab and technical analysis capacity expansions
  - o Need for an inventory of vulnerable coastal and marine habitats.
  - o Need for strategies to help those habitats, and support their resilience and biodiversity.
- The subgroup started thinking broadly
  - o Need to elevate and include OA monitoring.
  - o Need to elevate total Nitrogen monitoring
  - o Need to elevate water quality in general, too
  - o Need to fine-tune recommendations about having data available to minimize conflicts related to siting decisions (aq, energy, other things)
  - o This group wants to add metrics. They might not be super numeric, but partners are working on best practices for simple, high-quality ocean acidification monitoring. They want to have milestones for data.

### Questions/Discussion:

- *Comment about the above goal to provide data to minimize siting conflicts:* Trying to minimize impacts from siting conflicts is very challenging. Recommend to rephrase and emphasize trade-offs. Encourage consideration of the trade-offs related to siting things in or near the ocean.
  - o Minimizing impacts isn't the only goal. Consider changing to minimizing impacts and doing cost-benefit analyses, or something similar.
  - o Phrase it as "optimizing benefits" or "optimizing resilience"
- *Question:* Do the recommendations include participatory or citizen monitoring?
  - o Part of the equity recommendations and the public/private recommendations
  - o They are trying to put their details into the short-, medium-, and long-term goals towards the bottom of the template
- *Question:* Did the group consider their response to major impacts? Rapid response to disasters, like the winter storms. How to collect data quickly after extreme events?
  - o Challenge – lots of types of data. But important to be ready to act quickly.
    - Citizen science monitoring could be a great tool for rapid responses.
  - o *Question:* Is the Community Resilience WG doing this?
    - Yes. Rapid response is one of their three main categories.
  - o Rapid response is important for helping to prioritize resources.
    - Of course, need for baseline data...
- *Idea:* have a recommendation for preparing to monitor events

### Coastal & Marine Habitats/Blue Carbon

- This group also tried to add coastal/marine issues throughout the old version of the plan
- Challenges:
  - o The last round focused on forest protection via easements and purchase, but coastal waters are already publicly owned, so protection needs to look different. Change the emphasis from preservation to conservation.
  - o Biodiversity isn't a great goal on its own without context– salt marshes aren't super biodiverse
  - o Need to think about where things are going in the future. We need to restore things and plan to help them move and work with SLR. Narrow window (8-10 years) to restore marshes so they can stay resilient
- The group has been discussing how to emphasize blue carbon and where it fits with their other goals.
- Blue carbon – where is it? How do kelp and rockweed contribute? Need to get a better sense of the whole blue carbon picture
  - o Blue carbon isn't the only reason to care about coastal habitats. Marine industries and tourism rely on healthy ecosystems
- Need to emphasize the connections between community resilience and habitat resilience
  - o Share info about nature-based solutions to shoreline erosion. Make sure people know, need for permitting adaptations and example projects. Need to not have siloed conversations.
  - o An emphasis on technical assistance could help address these challenges
- Equity idea: for prioritizing habitat restoration, consider tribal uses as well as other uses.
  - o This group did a good job prioritizing

## Questions/Discussion:

- The CMWG recommendations are currently very working waterfront and fisheries and aquaculture focused, but we need to also emphasize habitats and science
- Appreciation for the focus on conservation as a lens for marine and coastal issues
  - o *Recommendation:* don't be shy about emphasizing a need for change in the plan update.
- The language that habitat people use to describe issues has changed dramatically in recent years. We aren't just talking about protecting things. There is work to do and people know that.
- How to emphasize or de-emphasize blue carbon has been a tough challenge for this group. It links the CMWG with other working groups. Dropping blue carbon could reduce the great work that was done with the last plan.
  - o The subgroup isn't sure how to address blue carbon. It is important, but focusing only on blue carbon or biodiversity might lead to a failure to focus on other important things.
- The subgroup would like guidance from the CMWG on a few points they are confused about.
- *Recommendation:* keep blue carbon as a currency and cross-cutting theme.
- The blue carbon group has done a lot and incorporating blue carbon into the state GHG budget will help.
- When thinking about carbon markets – people who own trees control that carbon. But in the ocean, carbon capture is distributed. We need to think about how to use blue carbon to prioritize projects. There will be carbon market-driven projects soon, but we can still use them to encourage resilience and habitat restoration.
- *Question:* Has this subgroup connected blue carbon to other, big-picture carbon capture discussions, like deep sea marine carbon renewal (MCR)? Is there research we can encourage?
  - o Marine Carbon Renewal is a technology and it doesn't fit great into discussions about habitat restoration.
  - o We need to be ready for it and make sure it is in the plan. MCR will impact the state.
    - The Climate Council Science Report (STS) discusses MCR. There are info needs that they highlight.
- Appreciation for efforts to expand and implement nature-based solutions. People run into permitting issues though and sometimes have to use hard solutions if they can't get nature-based solutions permitted.
  - o *Issue:* information doesn't always go far enough. Is there a need for a permitting and legislative change for "green before grey" infrastructure?
  - o *Issue* – we don't know for sure how well green infrastructure works?
  - o *Idea* – there could be big recommendations coming out of this group. What is the scope? What does the CMWG prioritize?
  - o Note: lots of effort to improve nature-based solutions permitting and implementation in Maine. The Community Resilience WG is thinking about permitting and regulatory hurdles. Kathleen Leyden offered to talk to Curtis to help clarify and refine recommendations.
- Need for data collection about the efficacy of various efforts. Need to share successes and failures.
- Last time for the habitat group, the potential for blue carbon wasn't super clear and the group didn't want habitats to get lost since they are good for more than blue carbon. Also, destruction of coastal habitats leads to negative impacts. Is this still a framing approach?
  - o Yes, still a similar approach. Challenge – how to implement habitat recommendations? What is the right language for the Climate Plan? How do we make sure our goals and interests make it into the final plan?

- *Question:* Thinking about indigenous uses of habitats – what is the CMWG’s plan for fitting in indigenous uses and lifeways into our recommendations?
- *Question:* Has the CMWG participated in the land use conversations?
  - o Carl has participated.
  - o If blue carbon doesn’t connect this WG to others, land use could be a connection.
  - o Blue carbon is fine as a way to connect with other WGs, but concern that it will take over and drive the whole conversation.
  - o With respect to the cross-cutting land use conversations – parallels to use of marine space, like trade-offs between uses of a land-based space
  - o Don’t need to choose between blue carbon and land conservation.
- Thinking about habitats in the context of land conservation – coastal spaces are dynamic environments that are being changed by sea level rise and development. There isn’t much room for expansion. We should focus on this detail.

## Pulling the Subcommittee Ideas Together

Jesica and Laura walked the CMWG through the combined recommendations document ([CMWG Initial Recommendations 3.15.24.docx - Google Docs](#)). There was discussion about each of the strategies and recommendations and members provided thoughts for things to clarify or add back to the document. The group avoided substantial wordsmithing, but members provided written feedback in the Google Doc with the template.

### Initial discussion

- Does the CMWG have a tribal representative?
  - o No, but the whole Climate Council has active participation. UMaine’s work is also trying to improve representation and inclusion in the plan.
  - o Recommendation to bring in First Light to help us make sure our language is considerate
  - o Archaeological resources should be considered in the conservation conversation – lots of loss of middens in recent storms.

### Walking though the draft CMWG recommendation template:

- *Prompting question:* What do we need to seriously consider for submitting to GOPIF?
  - o *Note:* strategies are the ALL CAPS headings. Recommendations are the left-hand column. Actions are the right-hand column
  - o This group suggested four strategies and 10 recommendations.
  - o Anything that gets advanced will need the rest of the template filled out for it as well. Think about how to answer the remaining questions (focus of the April meeting)

### *Strategy D: Grow Maine’s Clean Energy Economy and Protect our Natural-Resource Industries* Recommendation 1

- Some language combined but no major changes
- Things in red are new
- Add new product development to the bullet about expanding marketing.
  - o Same bullet – reduce the 2025 goal, since the plan will come out in late December
- Change language from “seafood” to “marine resources” or something similar so we aren’t just focusing on food.
- Make sure that ecosystems and environments make it into our recommendations. We shouldn’t just focus on commercial fishing and aquaculture.

- Reword the recommendation to prioritize the ability of coastal and natural environments. Emphasize the environment as a way to support the economy.
  - o To address the point that the ecosystem is central to having resilient/sustainable fisheries and aquaculture. *Suggestion:*  
Strategy D Recommendation 1: Prioritize the inherent ability of Maine’s coastal and inland natural environments to support innovative economies resilient to climate change impacts.
- CMWG members were encouraged to provide edits to the template
- *Question:* Vulnerability assessment bullet (third action in D1) – are we just thinking about vulnerability? Should we couple it with resilience opportunities? We should try to co-produce info to share
  - o For the vulnerability assessment bullet, consider vulnerability AND resilience assessments that are co-produced with industry and/or communities, not just disseminated to/with industry
  - o *Note: Several peoples expressed agreement with this*
- Call out emerging species in the fifth bullet, which covers increasing consumption of local foods.
- *Question: What is meant by the term “monitoring of resources” in bullet #2? Also, could this action be better placed in Strategy E, Recommendation 4?*
- *Question:* Will we have a glossary of terms? Strong recommendation to add one. This is getting jargony. E.g. “emerging fishery”
  - o Agreement!
  - o This is an equity consideration
- *Question:* Is the data collection and providing pathways bullet too top-heavy? Clarify DMR roles but leave space for shared and co-produced data and resilience work
  - o This might fit better in the lower part of the template
- *Question:* Is 30% local food by 2030 possible? It seems like a reach.
  - o If we really try, it is possible.
  - o It isn’t just seafood.
- *Question:* What is the goal of the vulnerability assessment? There is already an assessment for New England broadly. Can some of our needs be addressed without getting more data?
  - o There are already vulnerability assessments out there. Few socio-ecologically focused. New frameworks to tie those elements together state-wide
  - o Need to prioritize resources where they are most needed first. A state-wide assessment could help ID where work is needed first.
  - o Need to emphasize the ecosystem and resource pieces that communities are interested in. Use the vulnerability tool to get there.

Recommendation 3:

- Suggestion for D3. The WWF group tried to separate private and public infrastructure. We need to make it clear to others that the referenced private infrastructure is used to access public-trust resources. We aren’t talking about any private infrastructure, but infrastructure to access resources.
  - o Is using the word “heritage” too constricting by excluding future uses? Add “emerging”

*Strategy E: Protect Maine's Environment and Working Lands and Waters: Promote Natural Climate Solutions and Increase Carbon Sequestration*

Recommendation 1:

- Recommendations in this part of the template came from the monitoring and blue carbon/habitat groups, with some overlap to the working waterfront group
- A few things were cut out of this strategy and moved to the working waterfront strategy below (bullet 4)
  - o Request to make sure inventorying and mapping of working waterfronts was maintained in the lower section – very important.
- Strat. E, Rec. 1, bullet 1: "critical" habitat is a term defined by Endangered Species Act. Was that term used intentionally? Perhaps "high value" habitat is an alternative.
  - o Be clear if we don't actually mean "critical habitat."
- *Note: The Strategy E recommendations weren't discussed in much detail, but several comments were added to the Google Doc after the meeting*

*Strategy F: Build Healthy and Resilient Communities*

Recommendation 1:

- Instead of focusing on the causes of climate change, focus on physical, emotional, and economic wellbeing. Do we need to focus on public literacy, or should we focus on understanding the risks from changing conditions? Risks to infrastructure and habitat are important to consider.
  - o How do we build support for things like offshore wind if people don't understand why it is needed?
  - o No easy answer.
  - o Refine the first bullet. Understanding climate change doesn't prompt action. Education is needed, but there are other following steps that are missing.
    - Talk to other people about refining this. The Community Resilience WG is thinking about this a lot.
  - o How we talk about climate change is tricky and important. How to communicate change?
- People want climate solutions. What can the average person do? Frame this bullet in terms of solutions. Add adaptive strategies? Empower action. Tell people how they can participate.

*Strategy G: Invest in Climate-Ready Infrastructure*

Recommendation 3 & 4:

- All new – CMWG didn't engage with this last time. From the working waterfronts and infrastructure group.
- First bullet – clarify. Guidance and BMPs are needed to adapt WWF facilities
- *Question: did this group consider wastewater and stormwater?*
  - o The WWF group didn't consider those things
- Add the cut inventory language from E to G? WWF monitoring is needed, as is baseline info. *This was done.*
  - o Does habitat loss and public access fit in here?
- Landward migration of non-water-dependent marine activities needs to be reemphasized.

## Big-picture discussion of the combined template:

- Desire to see the Community Resilience WG's template. There is a lot of overlap and knowing what they are thinking will help this group think about what to emphasize and how. What are the connections between the two groups?
- The Community Resilience subgroups are finalizing their templates now – more details in a few weeks.
  - o Request for info about stormwater and wastewater
- Glad to see that fisheries and aquaculture made it into this version more prominently than last time
- Question for Carl – what is his thinking about where the CMWG is? How can the subgroups move forward?
  - o What is his summary of this template?
    - Conservation is a useful word. Talk about conservation instead of just protection.
    - Infrastructure needs to be upfront (man-made and natural). Monitoring, science, and management based on that.
    - One sentence summary: Conserve resilient infrastructure supported by adaptive monitoring and management.
- *Idea from the last plan* – emphasize the importance of good science, but the need for resilient infrastructure is very important in this moment.
  - o Also need to acknowledge that infrastructure was lost recently (and is being lost) and we need to conserve what we have.
  - o Managers and people on the ground are really struggling to keep up with infrastructure and current challenges.
  - o *Note*: regulatory and funding infrastructure assume things are steady. We need to adapt to the new reality.
- We need to tell a story of loss, vulnerability, and resilience!!!
  - o We have all of those pieces in the coastal zone. Investment and support are needed to keep marine industry going.
  - o The template isn't set up for narrative.
  - o *Request*: can we contribute to narrative, or at least to call-out boxes to highlight these stories?
  - o Keep in mind that we aren't just responding to a single event. Big tides keep happening.
- We should have another word as well as “conservation.” Something proactive to plan for the future. Adaptation as well? “Protect, conserve, restore.”
  - o Restore function, but not restoring exactly back to where we were.
- Three big themes: Pathways to adaptation, seeking opportunities to conserve and increase resilience, invest in building healthy and resilient coastal communities and place-based infrastructure.
- **Next Steps**: For now and the next meeting – fill out the Google form to help the CMWG understand what is most and least important. Everything is important and things can be added, but the co-chairs want to get a sense of what members want to emphasize.

*At this point, meeting attendees filled out an informal, anonymous poll to gauge the interest in and importance of the strategies and recommendations that were just discussed.*

- The poll is just a point in time. Nothing binding, just a check-in for CMWG members

- Poll discussion (note that there is an equity issue since the poll represent the people in the room):
  - o Working waterfront definitely was important. The other ones were scattered but generally had moderate to high support.
  - o Need to bin the ideas somewhat for the final product.

## Discussion of next steps:

- Next meeting April 23 at the Darling Marine Center (9:00 am to noon)
- Then May 15 (location TBD)
- *Comment:* Some people haven't been in the room. There has been interest in a simple survey to distribute widely to gauge public interest in the top recommendations coming out of the CMWG. Laura will create the survey. Updates to come.
- UMaine will be sharing an update about their engagement work in April
- One related discussion is how to reduce the carbon footprint on the water? Laura is organizing an ad hoc discussion. Email Laura by 3/22 ([lsinger@cbi.org](mailto:lsinger@cbi.org)) if interested.
- The April meeting will have some sort of breakout group discussions – possibly focused on the big themes from above – to discuss the template.
  - o Time for wordsmithing here.
- Thank you to everyone for putting time and effort into these conversations.

## Attendees (\* indicates CMWG member):

### *In person*

- Susie Arnold\*
- Nick Battista\*
- Chuck Bennet\*
- Kathleen Billings\*
- Curtis Bohlen\*
- Curt Brown\*
- Ivy Frignoca\*
- Jeremy Gabrielson\*
- Wendy Garland\*
- Carla Guenther\*
- Jessica Joyce\*
- Bill Needleman\*
- Rebecca Peters\*
- Jocelyn Runnebaum\*
- Michelle Staudinger\*
- Edge Venuti\*
- Jesica Waller\*
- Meredith White\*
- Carl Wilson\*
- Melissa Britsch
- Hsiao-Yun Chang

- Devin Domeyer
- Amanda Ellis
- Olivia Richards
- Laura Singer
- Melissa Smith

### *Virtual*

- Bob Baines\*
- Christine Beitel\*
- Heather Hamlin\*
- Kathy Mills\*
- Amy Winston\*
- Gayle Zydlewski\*
- Angela Brewer
- Ed Billings
- Sylvia Bosco
- Matt Davis
- Margaret Kelly-Boyd
- Kathleen Leyden
- Melanie Nash
- Helena Tatgenhorst
- Abby Westberry