

Storm Response and Preparedness in Working Waterfront Communities

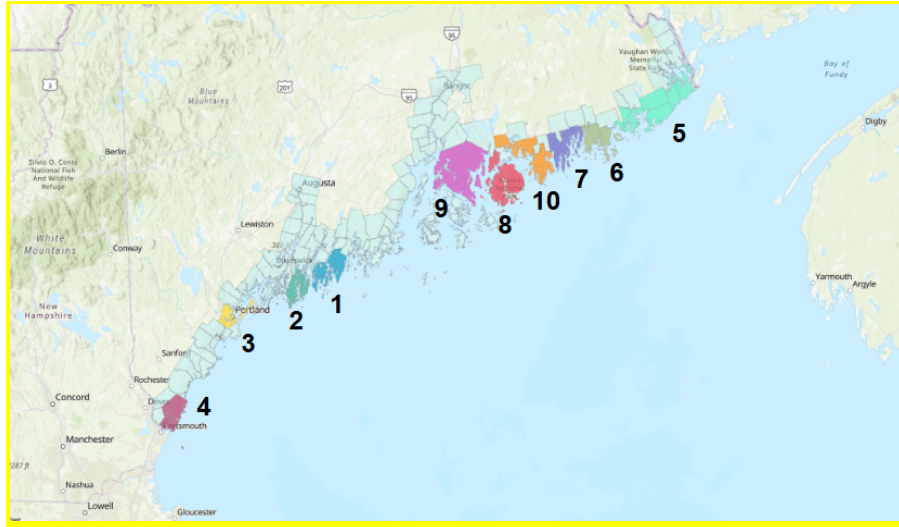
A series of 10 community conversations along the coast of Maine, winter 2024-2025

Summary Notes of Regional Community Conversation # 4 of 10

Kittery

Kittery Community Center, 120 Rogers Road, Kittery, ME 03904

December 5, 2024, 5-7 pm

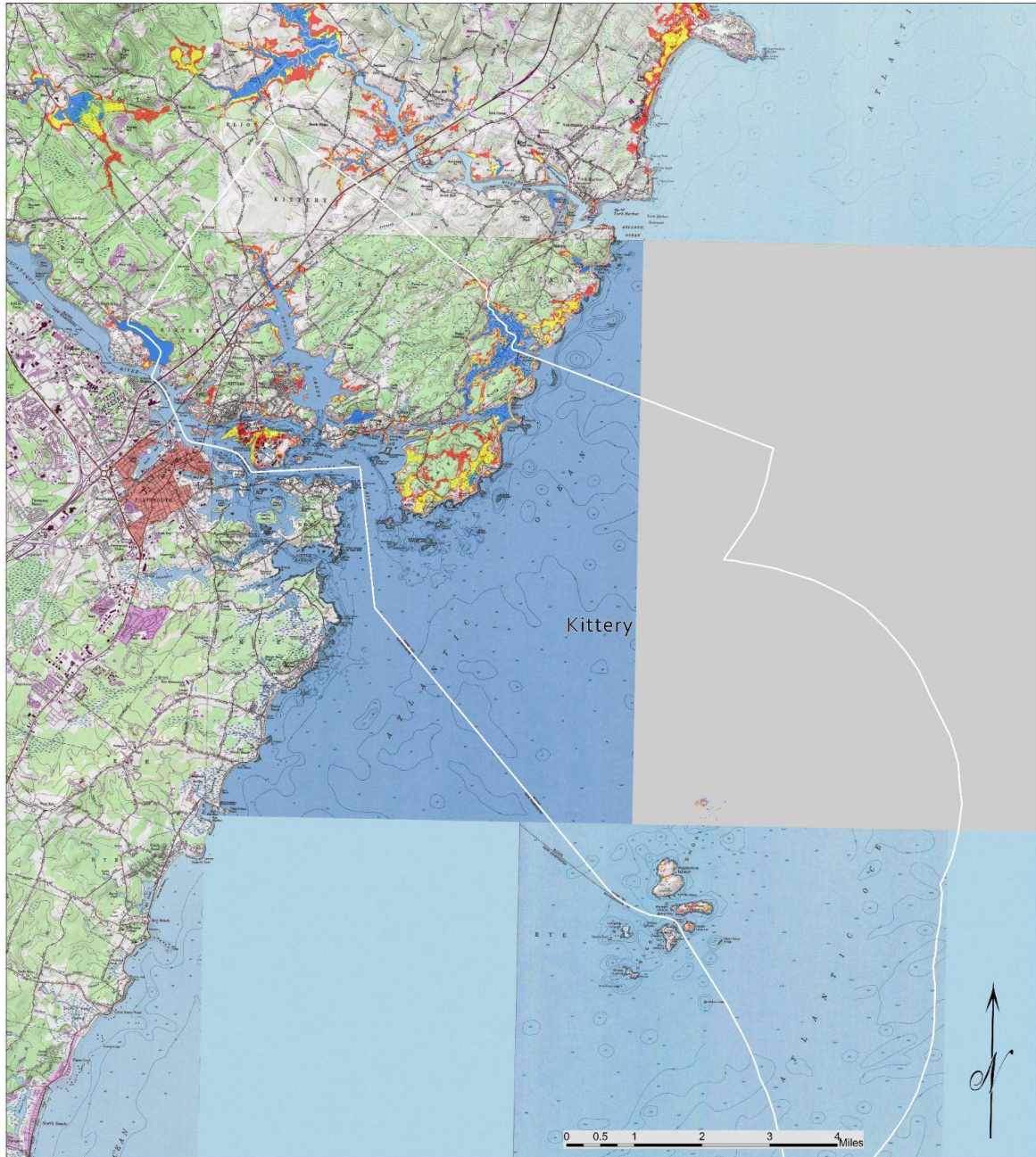


The goals of this series are to:

- Create space for community members across diverse sectors to take stock of their working waterfronts within the context of the community's resilience since the storms.
- Share resilience and working waterfront planning work across the region: recent, underway, or planned.
- Learn about resources for public and private working waterfront resilience.
- Identify systems and networks that would be useful to have in place locally to support working waterfronts in anticipation of future storms.

Maine Sea Grant, working in partnership with Maine Coastal Program, Island Institute and UMaine MARINE, received funding from the National Sea Grant office to plan these convenings in response to the January 2024 storms. Each convening is organized collaboratively with local leaders and contacts. We are grateful for their help!

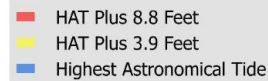




Kittery

Source: Maine Geological Survey
This map represents the approximate extent of inundation on the Maine coast during a Highest Astronomical Tide. The Highest Astronomical Tide is the elevation of the highest predicted astronomical tide expected to occur at a specific tide station over the National Tidal Datum Epoch (currently, 1983-2001).

Subsequent feature classes represent approximate static inundation after scenarios of 3.9ft and 8.8ft of potential sea level rise, or storm surge, on top of the Highest Astronomical Tide. Mapping was produced in 2018 by P. A. Slovinsky, S. Rickerich, and C. H. Halsted of the Maine Geological Survey.



For the online version of this map go to <https://tinyurl.com/mainesealevelrise> or use this QR code

Maps prepared by College of the Atlantic GIS laboratory, October 2024, as part of a series of community conversations on Storm Response and Preparedness in Working Waterfront Communities. Project supported by Maine Sea Grant, working in partnership with Maine Coastal Program, Island Institute and UMaine MARINE, with funding from NOAA Sea Grant.



Regional map with sea level rise projections ([PDF version](#)). For an online version of this map and the ability to zoom in to any region on Maine coast, go to <https://tinyurl.com/mainesealevelrise>. Source: Thank you to the College of the Atlantic GIS lab for data and cartography.

ABOUT THIS SERIES

During the winter 2023/24 storm season, a stream of photos filled newspapers, broadcast news, and social media depicting stark destruction of the state's waterfront infrastructure, from east to west. People throughout the state's coastal and working waterfront communities saw their businesses, bluffs, shorelines, wharves, piers, docks, and homes turned upside down by the sea. A year later, the impacts are ongoing, as people and institutions grapple with how to rebuild, rethink, and prepare for the next storms.

In the immediate aftermath, groups that support the state's working waterfront (Island Institute and Maine Coast Fishermen's Association) stepped up with rapid grants to help businesses perform emergency repairs. The state responded shortly thereafter with a \$60M storm relief package to help Maine businesses and communities recover. This funding resulted in \$25.2M awarded to 39 communities through the Infrastructure Adaptation Fund, \$21.1M granted to 68 working waterfronts through the Working Waterfront Resiliency Grant, and \$8M granted to small businesses and non-profits through the Business Recovery and Resilience Grants (with an additional \$2M available now). The Governor also created the Infrastructure Rebuilding and Resiliency Commission to analyse storm response across the state and the state's policies and practices. In November, the Commission shared their near-term recommendations in an Interim Report, and is now working towards creating a long-term rebuilding and resilience plan for the state, to be released in May 2025.

Climate impact readiness was also featured prominently in the recently updated state climate action plan, "Maine Won't Wait." This past Summer, Maine's Governor's Office of Policy Innovation and the Future (GOPIF) was awarded a \$69M climate resilience grant from the National Oceanic and Atmospheric Administration to help protect Maine's communities, environment, and working waterfronts from extreme storms, flooding, and rising sea levels.

At the county level, the emergency management community sprang into action immediately after the storms and continues to support municipalities and people through storm-related crises and pre-storm planning. The Community Resilience Partnership (CRP) is growing rapidly throughout the state's coastal communities and receiving additional funding and capacity. Overall, the 2024 storms catapulted a fever of attention on the status of people, businesses and the coastline's ability to thrive into the future.

This series of ten regional conversations invites people who live and work in coastal communities to come together to support the economic, physical, and cultural vitality of working waterfront communities, by exploring how to integrate people's diverse expertise, depth of knowledge and lived experience to bolster regional response and preparedness. We are focusing on working waterfronts specifically in this series, but working waterfronts are part of larger communities and they play an important role in our culture, history, families, and economy. These conversations are intended to help make connections between working waterfronts, emergency management and resilience planning in the short-, mid-, and long-term.



SUMMARY OF KEY TAKEAWAYS (from this regional event)

- Community Assets
 - Communities have flexibility to adjust local permitting processes and some have simplified the process to make responding to storms easier at the local level.
 - Regional coastal community coalition has worked to prepare for winter storms
 - Planning for climate change impacts is underway in individual locations and throughout the region
 - An engineer in the room shared that engineering firms can help at multiple levels, often starting with free preliminary consultations for a diversity of services from concept planning all the way to construction oversight
- Things to improve
 - Communities that have not yet done so can simplify local permitting processes. The Kittery Conservation Commission is considering recommending actions to the planning board that will streamline the process and make dealing with storms simpler in the future.
 - Education and preparation about coastal flooding impacts (including flash flooding) as well as education about mitigation of those impacts on infrastructure
- Gaps/needs (local control)
 - Support to improve Individual homeowner and business preparedness (ahead of storms) is a key part of responding to storms
 - Support for community education on issues like flooded basements and other impacts that can put a large strain on town resources
 - Education that addresses growing interest/curiosity in “storm tourism” during major storm events (how to safely view storms without getting in the way of emergency response)
 - There may be an opportunity to address shoreline erosion through the new Shore Corps which will provide technical assistance for living shorelines on public property.
 - Need support and funding source to access and work with engineering firms
 - Provide greater access to Chaplain and mental health resources for impacted community members
- Gaps/needs (state control)
 - Statewide permitting processes need to be expedited for raising working structures as well as processes that enable building back better, higher, stronger. *(Note: Recent legislation allows raising of piers and wharves by 4 ft within the Permit by Rule (PBR) permitting process, as long as the structure remains within the existing permitted structure footprint)*
 - Permitting for seawall repairs also needs to be simpler and faster
 - Rapid action funds to purchase and protect working waterfronts are essential to protect damaged properties that are sold; this is also an opportunity to increase working waterfronts by acquiring damaged non-working properties and converting them to working waterfronts
 - Need for general resilience funding too, possibly a state bank type resource or revolving loan fund
 - Need dedicated Working Waterfront Funding with limited barriers and red tape.
 - Every number referenced for adaptation funding is missing a zero. One given project for a bridge in Kittery alone could cost \$30 million, which is half of the Governor’s entire \$60 million infrastructure and storm response initiative.

FULL MEETING NOTES

Taking stock: Each town to share status of community climate resilience efforts, with a focus on working waterfront resilience

- **Kittery:**

- Kendra Amaral (Kittery Town Manager) Kittery is actively working on resilience, including:
 - Creating a climate action committee and doing a flood risk assessment
 - Assessing risks to roads and both public and private working waterfronts
 - The town has two grants for coastal roads
 - The Gulf of Maine Research Institute (GMRI) did an assessment of risks to working waterfront in Kittery
 - The town is a member of Maine's Working Waterfront Coalition and is working to prevent more loss of working waterfronts through protection and advocacy as well as property acquisition
 - There is a great need to be able to act quickly when properties are endangered
 - The town received a grant to study the Pepperell Cove marina to understand sea level rise impacts and prevent further damage over its lifespan
 - The town is pushing for legislation to maintain WWF with rapid response money to help prevent gentrification and the loss of WWF

- **York:**

- Forrest Brenske (York Harbor Master):
 - York has less wave action than Kittery, but still experiences high water
 - Piers lighting and electrical issues are the most common storm impacts in the last three years and all piers have been impacted
 - The Harbor Master's Shack was floating during the winter storms
 - York EMA confirmed that the location of working waterfronts in York is more sheltered.

- **Kennebunkport:**

- Yanina Nickless (Town of Kennebunkport):
 - Projects include raising roads, a dune restoration project, and raising the pier buildings
 - They are looking at road engineering options to deal with flooding at the head of the harbor; cooperation with Kennebunk to address dock square flooding is critical. It is hard to find an engineer who will take on this project and it is expensive.
 - Another issue the town has had to deal with is storm tourism and people wanting to see big waves or be on the coast during a big storm. This puts pressure on local emergency responders and there is a big need for education around this issue.

- **Eliot:**

- Lisa Wise (Eliot Conservation Commission):
 - The town is updating their comprehensive plan and are working on incorporating climate change and updating their open space plan to account for marsh migration.
 - They are conducting a vulnerability assessment with Community Resilience Partnership funding

- **Portsmouth Naval Shipyard:**
 - Thomas Morley (Community Liaison):
 - They are looking at their waterfront areas to accommodate piers and dry docks for future sea level rise scenarios.
 - They are taking a whole island approach to resilience and are looking at stormwater management and resilient roadway links to the town
- **York County Emergency Management Agency (EMA):**
 - Megan Arsenault (York County EMA Deputy Director):
 - York County EMA works with the 29 towns in York county to oversee disaster preparation, response, and recovery. As storms ramp up they work with partners in each community to support emergency management response plans.
 - In the January storm – flash flooding stands out as an issue and they need to get info out earlier.
 - They are focusing on preparation for an emergency management response center
 - Recovery work with FEMA for individuals, municipalities, and businesses.
 - Work on mitigation efforts, too. Working with FEMA to build back more resilient is a bigger piece of what they are doing.
 - They are looking at prep for this year and are considering risks to coast to be prepared. Formed coalition with 9 coastal towns to be prepared this winter.
- **Southern Maine Planning and Development Commission (SMPDC):**
 - Abbie Sherwin (SMPDC Resilience Division Director)
 - SMPDC provides planning services, including climate change mitigation and adaptation plans and vulnerability assessments.
 - A recent project was the Climate Ready Coast Project, which included towns from Kittery – Scarborough with a focus on social, demographic and natural resource analyses. The project resulted in a regional coastal resilience plan to address specific vulnerabilities in the region and at the local level.
 - (1) Question from Lori at Spinney Creek – did the Climate Ready Coast study include Eliot? No, but Eliot will be included in another study. Request to reach out to Eliot and include in future studies.
 - SMPDC is now working with Kittery and the Shipyard to look at two roadways to reduce vulnerability and protect natural resources in the vicinity.

Looking Forward: What Systems, Networks, and Resources do participants think are needed to better prepare for future storms (or wish had been in place before the January 2024 storms)? Brainstorming community assets to meet gaps and needs

Community Assets

- Local permitting requirements:
 - One participant commented that while seawall repairs go through DEP, the local planning board (town unclear) has expedited the local approval process so it can be completed in a single planning board meeting.

Things to improve

- Local permitting requirements: Kittery residents have to go before the planning board to get a permit for repairs to their personally-owned waterfront structures, which can be a long process. The Conservation Commission is considering recommending actions to the

planning board that will reduce bureaucracy in processing these permits, since storms and the need for permits will likely happen more frequently in the future. This streamlining may also apply to the local permits needed to enlarge culverts. The goal is to make the process of dealing with storms less complex in the future.

Gaps/needs (local control)

- Individual homeowner preparedness:
 - Comment by resident of a neighborhood accessed by a bridge and roads that are often flooded: Homeowners need to mitigate the impacts of flooding on their own properties. Flooding in homes causes risks to residents and puts a toll on town services (example: when the fire department has to pump large amounts of water out of basements to avoid electrical fires).

Gaps/needs (state control)

- Statewide permitting requirements:
 - Lori Howell with Spinney Creek Shellfish had damage to her home and pier; and nearly to her business. There needs to be an expedited permit process for raising working structures.
 - Comment from engineer/participant that state permitting processes is slow, but the local process is less so. DEP is understaffed. There is legislation in consideration to avoid full permit for pier/dock repair and allowing Permit By Rule (PBR) instead which would be faster.
 - Olivia clarifies that this has passed and allows raising 4 ft with Permit by Rule (PBR) within the existing permitted structure footprint.
 - Permitting for seawall repairs also need to be simpler and faster
- Rapid action funds to purchase and protect working waterfronts:
 - The owners of properties (working waterfront and non-working waterfront) that have been damaged by storms may want to sell. There needs to be funding to purchase damaged properties to avoid the loss of working waterfronts and gentrification. The increasing frequency of storms could create more opportunities to purchase properties that have been damaged where the owners want to sell. If the properties aren't already working waterfronts, they could be purchased and converted into new working waterfronts.
- Working Waterfront Funding: the \$60 million fund is not accessible due to red tape – granted in April but Dec and no access to the funds. Can't sit on it for a year – opportunities are lost.
- Shoreline erosion: a participant asked about a new grant program for natural shoreline stabilization.
 - *This might be related to the new [Shore Corps](#) (part of [Maine Conservation Corp](#)), which will provide technical assistance for living shorelines on public property.*
- Every number referenced for adaptation funding is missing a zero. One given project for a bridge in Kittery alone could cost \$30 million, which is half of the Governor's entire \$60 million infrastructure and storm response initiative.

Resource Sharing

The slides presented tonight (which include a few additional informational slides and updates added since this event) are available here: [Storm Response and Preparedness Slides](#).

This resource document, [Resources for Storm Response and Preparedness in Working Waterfront Communities](#), was shared during each of community convenings throughout Maine coastal and working waterfront communities from November 2024 to February 2025. This document has been updated with additional resources that were mentioned in this event and will continue to be updated with information from the full series. That document is intended to be used into the future and shared broadly.

Presenters included:

- General Resources: Olivia Richards, Island Institute (Slides 14 - 18)
- County EMA: Megan Arsenault (me arsenault@yorkcountymaine.gov) (Slide 12)
- UMaine Engineering Technologies: James Bryce, Advanced Structures and Composite Center (tidc@maine.edu) (Slides 19-25)
- Spiritual Care Services: Pamela Brouker (pbrouker@gmail.com) (Slides 38-39)

NEW and highlighted resources

- \$2 million is now available through the [Business Recovery and Resilience Fund](#) (BRRF), through the Maine Department of Economic and Community Development (DECD), to fund grants to small businesses and nonprofit organizations affected by last winter's storms. Grants can be used for recovery, rebuilding, and investments into more resilient infrastructure, including upgrades, improvements, or installation of drainage systems, moving electrical or business equipment, relocating the business to a more protected location within Maine and investing in additional insurance. Applicants who did not receive funding through the first round of BRRF grants will be prioritized first. Pier and dock infrastructure that was eligible for the state's [Working Waterfront Resiliency Grant Program](#) is not eligible for this grant. Commercial pier and dock infrastructure that was NOT eligible for the WWF Resilience Grant Program is eligible for the BRRF grant. Applications are due by January 14, 2025. Program information can be found on the website here: [Business Recovery and Resilience Fund](#).
- Here is a [blog post](#) and a link to the [Maine DEP website](#) with guidance for raising piers, wharves, and docks 4 feet using the permit-by-rule (PBR) process. Both of these documents are in the resources document.

Other significant anecdotes from the night

- Comment from UNH Marine Docent - oyster seed stock is decreasing and could be threatened in the future by ocean acidification, which impacts shell formation
- What efforts are underway to consider alternative funding sources if federal budgets are cut? Where do we go for funding outside of federal sources? States may have more budget flexibility, but what funding options do we need to pay attention to?
- Mold is a serious issue that arises after flooding events.
- We should avoid trying to solve problems in isolation and instead think about how to gain multiple benefits, like from the culvert diffuser that increases flow and reduces erosion without needing to remove a road. (*The culvert diffuser is a reference to the presentation by Jame Bryce from UMaine, in the slide presentations.*)
- Note of thanks to the chaplain who attended. The participant noted how the feeling of stress in the room was reduced by her comments. The participant has never been to a community meeting like this before where the perspective of chaplains has been shared, and they appreciated it.
- Participants said they planned to stay after the meeting to build resilience by making new connections.

- A participant mentioned a grant for shoreline stabilization; the planning team will look into it more to clarify what grant was being discussed and will provide more information if possible.
- Rebecca Cherry, an engineer and attendee, shared a list of engineering firms that work on waterfront and coastal engineering issues (* = local to ME):
 - o Tighe & Bond*
 - o GEI*
 - o Collins Engineers*
 - o GZA*
 - o Altar Engineering*
 - o Appledore
 - o Pare Corporation
 - o FOTH
 - o Childs Engineering

Closing and Next steps

- Reminder to follow the work of the [Infrastructure Rebuilding and Resilience Commission](#) as they finalize their work and move forward with recommendations
- Notes from each meeting will be compiled with key points and shared in a final summary document in Spring 2025
- [Invitation to evaluate](#) this session to provide feedback and suggestions for how to improve

Acknowledgements

- Kittery Community Center
- Local contacts who provided help with planning the convenings:
 - o Kendra Amaral, Forrest Brenske
- Gordon Longworth, College of the Atlantic GIS Lab Director
- Food: Lil's Cafe and Beach Pea Baking Co.
- Thanks to those who have helped organize this convening locally, and to larger advisory board who have guided the design and planning of the larger series
- Project funded by the National Sea Grant Office
- Thank you to all who presented tonight! (listed in Resource Sharing section above)

Attendee information

Number of attendees: 37

Municipality	Approximate # Attendees
Berwick	1
Eliot	4
Kennebunkport	3
Kittery	10
Kittery Point	8
Wells	3

Other/Not reported	8
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Sector/Occupation	Approximate # Attendees
Staff or volunteer on municipal committees	13
Emergency management	3
Fishing, aquaculture, and/or working waterfront property owner	5
Non-profit	2
Consulting Engineering	2
Spiritual Services	1
Other (engineering, marina, non-profit advocacy, shipyard, planning, research, etc.)	13