The Southern Midcoast Maine Social Resilience Project

Scenario Planning Exercise Report
November 30, 2022

This report provides a summary of discussions among participants and a summary of recommendations identified as part of the Scenario Planning Exercise that took place on January 26, 2022.

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Report Overview

Better connected communities are more able to respond to impacts from coastal storms and serve those community members who, due to economic and/or social circumstances, will be at greater risk from those events. The Southern Midcoast Maine Social Resilience Project was designed to promote new connections and partnerships among sectors involved with preparation, response, and recovery relative to storm events. This report summarizes information from a Scenario Planning Exercise held on January 26, 2022. The report identifies opportunities for existing organizations and communities to build upon their strengths by developing partnerships to address gaps in meeting the needs of residents most at risk during and in the aftermath of storm events, a vital step, as these events are predicted to become more frequent and severe due to climate change.

This report provides an overview of the **background** of the Midcoast Maine Social Resilience Project and how it has been informed by representatives of conservation organizations, emergency management agencies, social service agencies and municipalities; provides **definitions of social resilience and social infrastructure**; presents the results of the scenario planning exercise and forwards recommendations for next steps.

The Social Resilience Project Scenario Planning Exercise had three goals:
1. **Learn about each other** so that sectors could build upon the strengths of other sectors in meeting the needs of vulnerable community members.
2. **Have an enhanced understanding and awareness of vulnerable populations,** to understand how the impacts of storm events may exacerbate existing vulnerabilities.
3. **Increase coordination between sectors**, to leverage these strengths and address gaps in meeting the needs of vulnerable community members.

The report is organized around these goals to provide information for exercise participants on what was shared at the exercise and in the pre and post event surveys. By summarizing what was discussed, the report captures what was important for participants and provides a way to help each group better understand the roles of each sector and help build a better shared understanding of who is most vulnerable to the impacts of storm events. One key section highlights gaps and existing resources to address these gaps. Gaps and resources primarily fell within the category of **social infrastructure** and can be sorted into three major subcategories: **communication**, **collaboration** and **capacity.** Participants also identified gaps created by impacts of storm events on **physical infrastructure**.

Recommendations identified as part of the scenario exercise by participants and shared in post-exercise surveys provide a way forward to build upon existing strengths and address gaps by linking organizational strengths across sectors.

The **Appendices** allow you to go beyond the summaries about vulnerable populations, sector roles, gaps, and resources to see detailed lists and tables and the frequency that certain topics were mentioned in the exercise. This information is provided in the hopes this could be helpful in providing information for grant funding and the planning of future scenario planning exercises.

Project and Exercise Background

The Social Resilience Project (SRP) held a scenario planning exercise on January 26, 2022. This report provides some background of the SRP, reviews the objectives and outcomes of the exercise, and delivers recommendations for next steps based on input from the exercise participants and on data collected from the evaluation elements of the project.

The Social Resilience Project began with a series of focus groups held in 2019 - 2020 with representatives from the emergency management, municipal, conservation and social service sectors in the Southern Midcoast Maine Region. Through the focus groups, we discovered the sectors were siloed from one another, using different tools and data to assess and respond to emergency events, while lacking awareness and understanding of each other and the services each provided. Through those meetings, it became obvious while each sector had established systems to address the components of hazard events relevant to their specific sector, there was a lack of connection and coordination between the sectors. These meetings also revealed limited awareness and understanding of the concepts of social vulnerability, social resilience and social infrastructure and their importance to a community's ability to withstand and recover from extreme events and disasters. Although a safety net existed, in the form of social infrastructure, participants described the need to strengthen social infrastructure by strengthening partnerships across sectors.

These findings led to the development of a scenario planning exercise to bring representatives from each of these sectors together. The goal of the exercise was to increase support for the region's most vulnerable community members before, during and after coastal hazards and other emergency events by providing an opportunity for the groups to learn about

Social Vulnerability relates to certain conditions that affect an individual or community's capacity to anticipate, confront, repair, and recover from the effects of a disaster. **Populations with heightened socially vulnerability** include those who face distinct challenges or barriers in having their needs met, such as, but not limited to, people living in poverty, people from marginalized communities, people without vehicles, people with disabilities, older adults, geographically isolated communities, and people with limited English proficiency which may increase their vulnerability in the event of an emergency.

Community Resilience refers to a community's capacity to anticipate, confront, repair, and recover from a disaster. Community resilience reflects a community's capacity to "bounce forward" after an event. A key tenet of community resilience is engaging all members of the public throughout all stages of the planning for, responding to and/or recovering from events such as a coastal storm. Resilient communities intentionally develop personal and collective capacity to sustain and renew the community, and to develop new trajectories for the communities' future. While events such as hurricanes may reduce a community's resilience, strengthening social infrastructure (the number and types of organizations that help vulnerable populations) or investing in physical infrastructural improvements can increase community resilience.

Social Infrastructure refers to the degree to which organizations partner and collaborate with one another across sectors to make the best use of both individual skills and organizational strengths. People and their skills and networks are part of critical social infrastructure. One approach for building resilience, particularly to meet the needs of community members who face the "first and worst" impacts from climate change, is to strengthen social infrastructure, much as we would strengthen physical infrastructure to mitigate the impacts of storm events.

each other and identify opportunities to increase communication and collaboration within and between the sectors. The exercise was designed to promote conversation between the sectors in the hopes that new partnerships and coordination opportunities would be identified to strengthen social resilience within the region.

As a result of the COVID19 pandemic, the scenario planning exercise, originally intended as an in-person exercise was held virtually. 96 representatives from the four sectors (emergency management, conservation, municipal, social services) were invited to attend. Of the 96 invited, 71 responded in the affirmative and 56 attended the event. The exercise lasted four hours and included both large and small group discussion. The exercise focused on a late fall/early winter storm event with heavy winds that caused severe flooding, power outages and damage to the transportation network in the region. The exercise was broken up into 2 modules, the period immediately after the storm event and the period six months after the storm event. The first module, immediately after the storm event was designed to reflect immediate response and initial recovery from the storm. The second module, six months after the event was designed to reflect the time period during which there would be ongoing recovery efforts and planning for future events. After each of the two modules of the exercise, the large group was divided into smaller groups made up of representatives from each of the sectors. These small, facilitated groups discussed a series of questions designed for the sectors to learn about each other, their roles in providing support to vulnerable populations during extreme events, and how they might uncover possible new partnership and collaboration opportunities. The large group reconvened at the end of the exercise to discuss initial responses to what went well during the exercise, what did not, and key takeaways from the experience. Feedback gathered from a pre-event survey, post-event survey and a mid-event survey, notes taken in each of the breakout groups, along with analysis of the exercise's recorded transcripts forms the basis of this report.

The Social Resilience Scenario Planning Exercise had three goals:
1. **Learn about each other** so that sectors could build upon the strengths of other sectors in meeting the needs of vulnerable community members.
2. **Have an enhanced understanding and awareness of vulnerable populations,** to understand how the impacts of storm events may exacerbate existing vulnerabilities.
3. **Increase coordination between sectors**, to leverage these strengths and address gaps in meeting the needs of vulnerable community members.

The remainder of the report summarizes observations and insights shared by participants during the exercise and through post-exercise surveys.

What did we learn?

This section contains a general summary of participant input gathered in the breakout rooms during the exercise as well as responses to open ended survey questions relating to the project goals. This section also includes a summary of what each sector is doing during each period covered in the exercise: Module 1: Immediately after the storm and Module 2: Six months after the storm (recovery phase/planning phase). See Appendix B for a list of specific actions identified by participants

Goal 1: Learn about each other.

Module 1 - Immediately after the storm: The following is a summary of actions, by sector, that organizations take in the direct aftermath of a storm.

> "We need to broaden our planning groups and make sure that there is better representation at all stages of a disaster."
>
> *EMA sector participant*

Emergency Response Sector - EMA representatives described having a key role in the response phase of a storm event, coordinating with municipal and state agencies and coordinating to provide resources such as generators. A second important focus is beginning to document damage from the storm. This documentation is key both for response efforts as well as for future funding opportunities.

Municipal Sector - At this phase of the storm, municipal representatives are coordinating with multiple entities (Emergency Management Agencies, Maine Department of Transportation, Central Maine Power). Another key role is documenting damages and prioritization of repair. Municipal representatives describe not being focused on specific vulnerable populations at this phase but focusing on restoring needed services and repairs to infrastructure.

Social Service Sector - At this phase, social service agencies are most focused on attending to the needs of socially vulnerable populations. Several representatives discussed response levels as tied to preparations or planning that had occurred prior to the storm. Many of the actions involved using a range of communication strategies to check in with populations that organizations served. A second key action was mobilizing volunteers. In the aftermath of a storm, representatives of social service agencies described coordinating with other entities including municipalities, EMAs, and other social service agencies. Communications received by EMAs are forwarded on to community residents by several agencies. An additional key role is setting up facilities (warming shelters, etc) to meet the needs of impacted populations.

Conservation Sector – Many representatives of conservation organizations describe not having a defined role during the response phase, beyond attending to the needs of employees. However, some post-event actions include opening trails and collecting data on damage to properties.

Module 2 - Six months after the storm: The following is a summary of actions, by sector, that participants described their organizations taking six months after a storm event like the one presented in the scenario planning exercise.

Emergency Response Sector - EMA representatives described a continued key role in documenting damages and aiding with securing funding and collaborating towards distribution of funds. In terms of meeting the needs of socially vulnerable populations, representatives described reaching out to uninsured and underinsured individuals and businesses still feeling the impacts of the storm.

> *"Know your resources. Work to establish relationships that will help to effectively address the needs of vulnerable people in the community."*
>
> *Municipal sector participant*

Municipal Sector - At this stage of recovery, municipal representatives reported that they would be focused on documenting and repairing damages, applying for funding and convening entities who were impacted. In terms of meeting the needs of socially vulnerable populations, representatives described the role of general assistance in providing potential resources for individuals waiting for insurance payments.

Social Service Sector - At this phase, social service agencies describe the need to address longer term, residual challenges of finding temporary housing which includes work to address the existing issue of affordable housing, an ongoing issue in the region. Many participants articulated the need to prepare at this stage for the upcoming year's late fall and winter storms while also attending to the needs of socially vulnerable populations still impacted by the storm event.

Conservation Sector – During this phase of recovery, representatives of conservation organizations described that they are focused on natural resource economies, small business, fishers and farmers. They are beginning to think about the longer-term impacts including water quality, facility impacts, and implications for those employed in the natural resource sectors. Representatives also described documenting damages to culverts and collaborating towards repairing infrastructure such as culverts. At this phase, many organizations described supporting the work of social service agencies that are addressing lingering food insecurity challenges.

Goal 2: Have an enhanced awareness of the region's vulnerable populations

> *"Increase effort to find out more about where socially vulnerable residents live and what kind of support and resources are needed."*
>
> *Social Service sector participant*

Through the guided discussions for each module, participants identified community members who would be vulnerable directly after a storm event and community members who may still be at risk or who may be newly vulnerable six months after a storm event. Participants also provided additional information on the ways these individuals would be vulnerable to the impacts of a storm in the short and long term and identified additional groups of individuals who would be vulnerable during and after a storm event. See Appendix C for the list of socially vulnerable populations discussed during both of the phases of a coastal storm (in the immediate aftermath and the six months after the storm). A few of the participants described the need for a

greater understanding of social vulnerabilities and ways organizations can address larger structural inequities that may occur in response to climate change impacts. Pre and post surveys (Figures 2 and 3) indicate that awareness of social vulnerability changed as a result of the event as did organizational capacity to meet the needs of community members affected by the impact of storm events.

The key findings from surveys and discussions relative to this goal include:

- Increased awareness of the impacts of climate change on vulnerable populations as a result of taking part in the exercise.
- Primary vulnerabilities identified as key concerns were tied to income (households in poverty, low income), age (older and younger residents), employment status (self-employed, employed in the natural resource sector), and residents who have limited English proficiency. See Appendix C for more information.
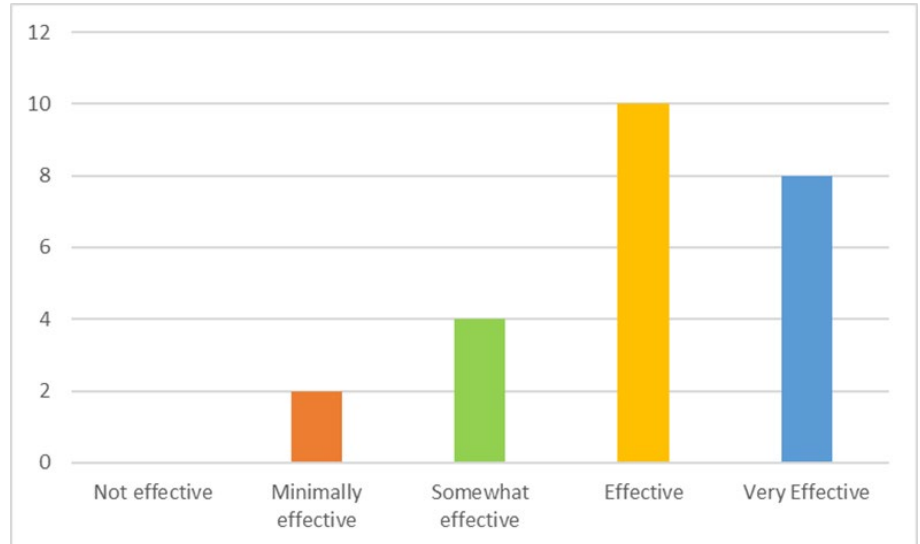
Figure 1: How effective was the scenario planning exercise in raising your awareness of the impact of storm events on vulnerable populations? Number of participants

- Identification of additional vulnerable categories including housing insecure, small business owners, seasonal residents, residents experiencing mental health challenges.
- Vulnerabilities may be additive, for example residents in poverty likely also experience food or housing insecurity or lived in structures such as mobile homes that might be more at risk from a storm event.
- Many vulnerabilities are not easily identified or mapped in a way that can assist with developing support systems. Example include individuals experiencing food or housing insecurity.
- Census data is limited, although it can provide some guidance. There is the need to rely on localized knowledge while there also exists barriers in sharing confidential information across sectors. One key strategy is greater shared knowledge of which sector may be best situated to understand who is vulnerable and where they are. Another recommendation is coordinating communication systems with vulnerable community members.
- Vulnerabilities are not static and will change over time in response to the longer lasting impacts of storm events. The vulnerabilities identified as important directly after a storm were not exactly the same list of vulnerabilities identified as important six months later. Participants also articulated the reality of residents becoming "newly vulnerable"; an individual may not be vulnerable initially but the impacts of lost employment, or loss of food due to spoilage and limited access could contribute to newly vulnerable residents. A concern expressed in the exercise was that these newly vulnerable residents may not have the knowledge of support resources available to them, and they may not fall within social service organization's awareness, exacerbating individuals' vulnerabilities.

- Isolation was identified as a vulnerability that had multiple impacts and meanings - geographic isolation due to roads becoming inaccessible, and isolation from neighbors and support systems in general.
- Identification of vulnerable populations changed as a result of taking part in the exercise as shown in the graph below (Figure 2). Several additional vulnerable groups were identified through the exercise and added to the post-survey. These include uninsured/underinsured and community members who are housing insecure.
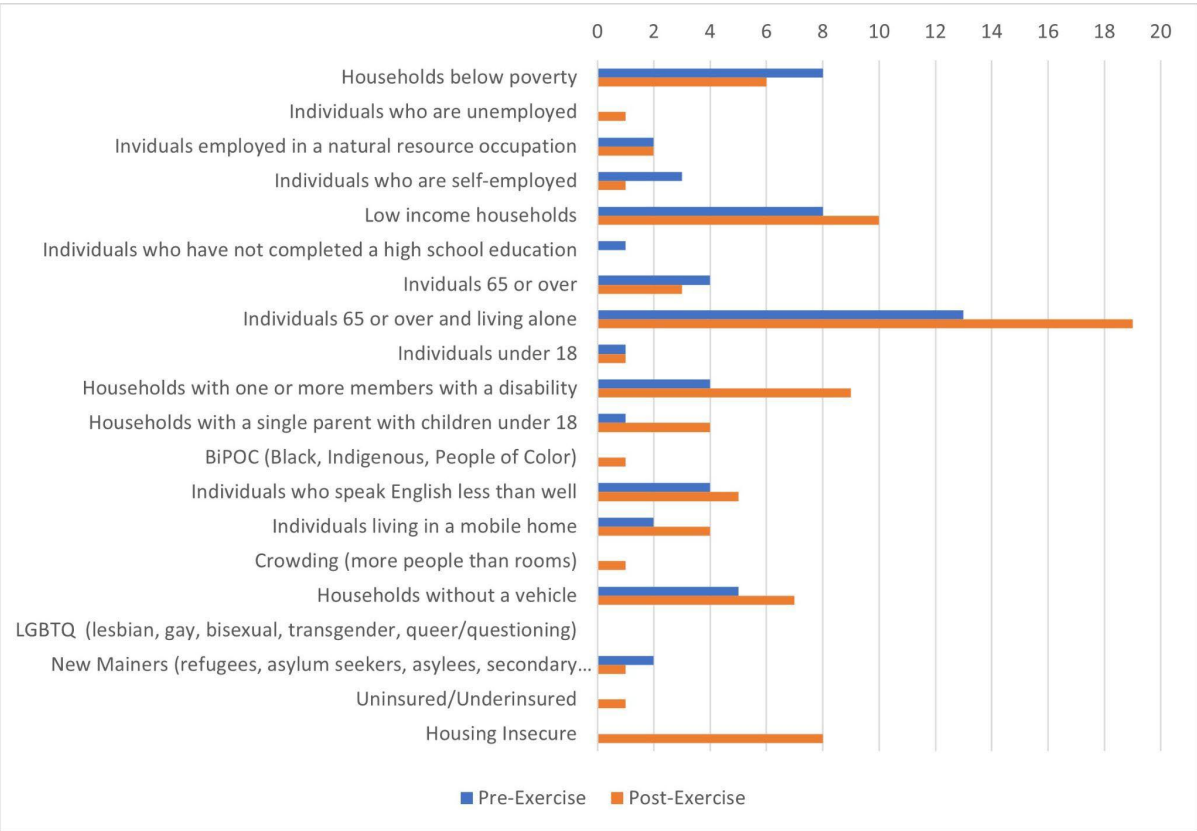
Figure 2: Participants indicated "who do you think is most vulnerable to storm events" before (blue) and after (orange).

- Participants were asked to identify before and after the exercise which vulnerable populations their organization serves, and which vulnerable populations their organization could serve. The greatest capacity for sustaining or increasing service in the future appears to be addressing the needs of households in poverty or that are low income, individuals whose livelihoods are impacted by these types of storm events, and New Mainers. In considering collaborative approaches to address the needs of vulnerable residents, these areas offer the most promise for a coordinated approach for mitigating the impacts of storm events.
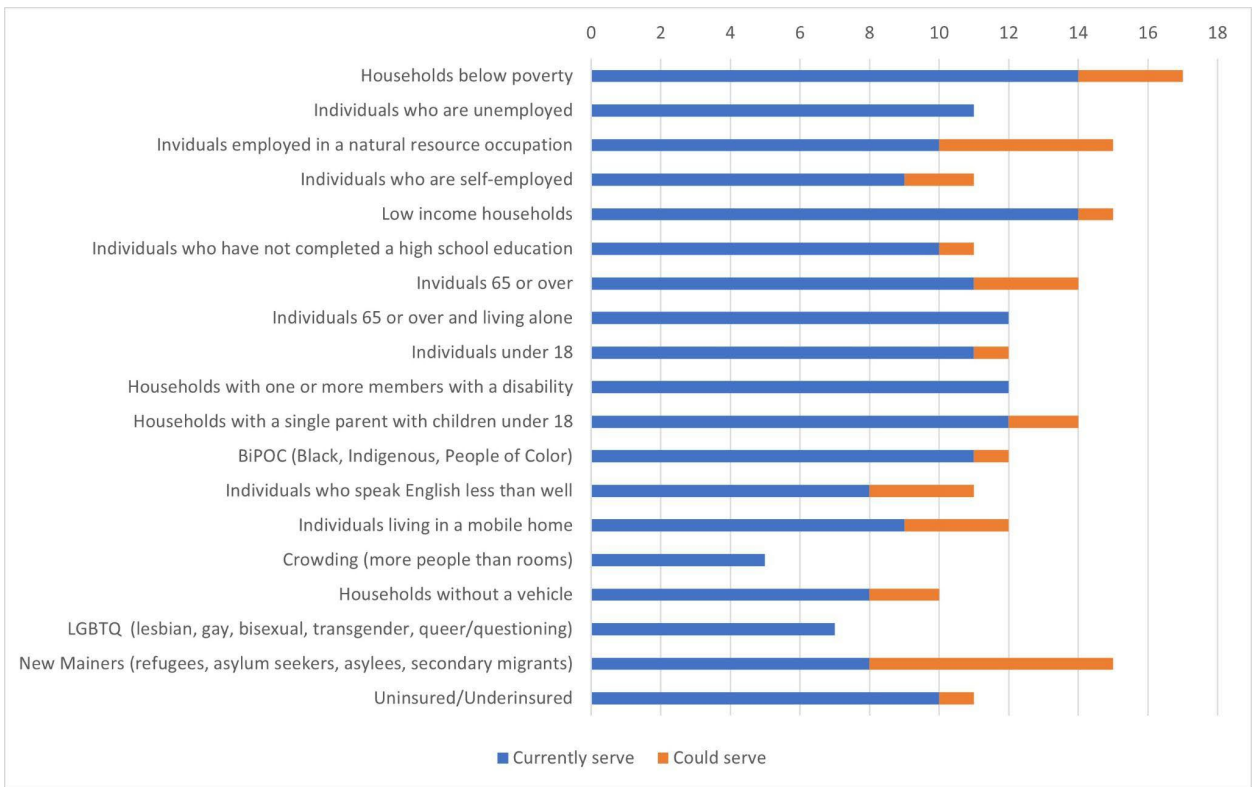
Figure 3: In advance of the scenario exercise, participants indicated which vulnerable populations their organizations serve (blue) and after the exercise participants indicated vulnerable populations their organization could serve (orange)

Goal 3: Increase coordination between sectors: Connecting Gaps and Resources to Strengthen Social Infrastructure

An important element of social resilience is a community's social infrastructure, measured by the degree of connectedness between people and groups within a community. The following graphic shows an increase in connections between the organizations participating in the exercise as a result of taking part in the exercise, suggesting that the exercise helped to increase the social infrastructure.

Existing partnerships pre-exercise   **Potential partnerships post-exercise**
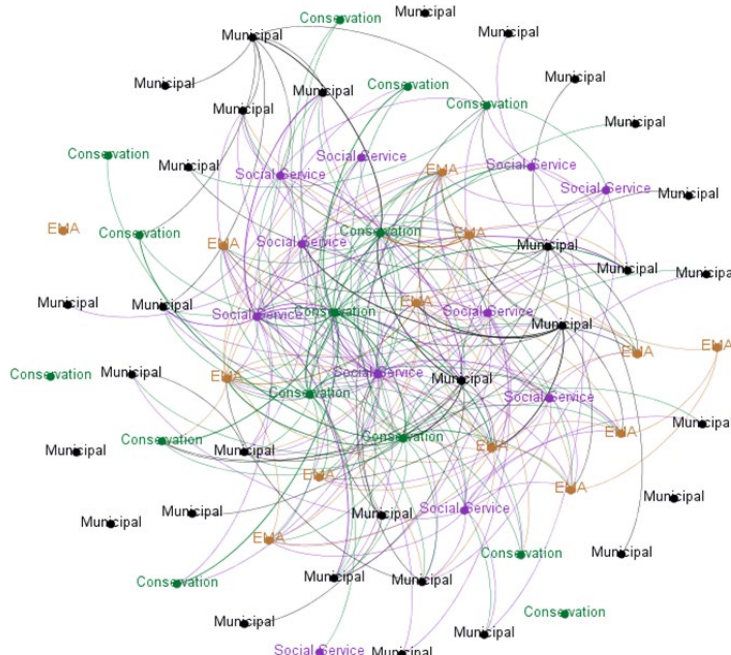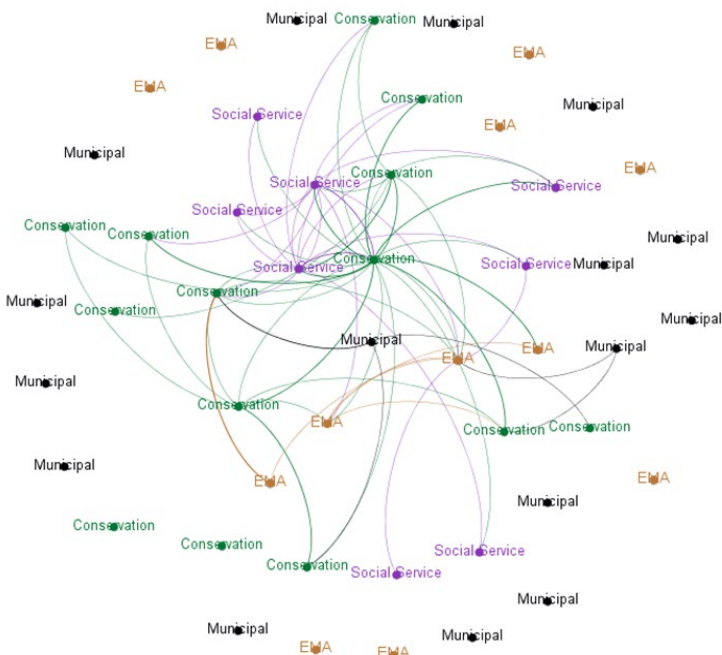
Figure 4: This image shows potential changes in social infrastructure. The points represent organizations by sector, and the lines represent collaborations. The image on the right shows the number of new partnerships identified by participants through the exercise.

In each of the breakout rooms, participants identified gaps in addressing the needs of vulnerable populations in the immediate aftermath of the storm and six months after a storm event. This section summarizes the gaps described during the scenario planning exercise as well as resources that participants identified by sector that could address these gaps. The following information states the gaps in order of priority based upon how many times a gap was mentioned across all breakout rooms and in the post-exercise survey. Resources identified during the exercise or in the surveys that may meet the needs of the gaps are included. This section is organized by gaps that focus on the region's **social infrastructure** under the themes of **communication**, **coordination**, **capacity**, and **physical infrastructure** (roads, working waterfronts, physical communication systems).

Social Infrastructure. Participants described the need for strengthening and building the network of existing organizations that currently provide key services and that their impact could be increased through addressing gaps in **communication**, facilitating **collaboration** across sectors, and **capacity** building.

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Communication Participants described challenges to communicating with vulnerable populations because of limited internet access, loss of electricity, limited knowledge of digital communications, and limited access to cell phones. At the same time, all sectors identified lack of knowledge of what communication systems were currently in place and which organizations were communicating with other organizations. Additionally, participants identified that better communication between and among the sectors themselves was needed to improve coordination during preparation, response, and recovery**.**

> *"Communication and networking increase ability to respond to problems."*
>
> *Conservation sector participant*

- **GAP**: The ability to provide information that is accessible to specific vulnerable populations and provides critical information for vulnerable community members about how to connect with resources quickly in advance and during a storm. This was, by far, the greatest gap in communication identified. Participants across all sectors expressed the need for information that is available in multiple languages including American Sign Language; there is a need for translation services for communications with residents whose first language is not English and that reflects different modes of communication used by particularly vulnerable populations. More broadly, participants identified communication gaps in providing information to area homeowners including information on resources that are available on preparing for a storm, what homeowners can do during a storm and resources available when recovering from the impacts of a storm. (stated 25 times during the exercise)
    - *Existing Resources:*
        - *Social service agencies: Some social service agencies have translators on staff that could assist with limited support on translations. Certain social service agencies work directly with New Mainer populations and could assist with providing information that is accessible for New Mainers and reflects the types of communication systems used by New Mainer residents, including information on food safety.*
        - *EMA: The EMA sector representatives identified having limited translation services as well and having information/brochures available in multiple languages.*
        - *Conservation organizations can serve as an additional means of disseminating information. Conservation organizations described having robust communication networks that could be used to disseminate additional information to their members on preparing for and recovering from storm events.*
- **GAP**: The need for unified, effective communication across all sectors that leverages existing communication strategies including opt-in communication systems. Organizations across all sectors described the challenges of having information that is "siloed". Organizations also articulated the importance of developing a method to better understand who is receiving information in a community. (stated 11 times during the exercise)
    - *Existing Resources:*
        - *Municipalities have a range of communication systems (social media, opt-in emails and newsletters, cable TV) that can be leveraged to inform residents in advance of a storm and provide educational resources. Some municipalities have developed individualized information for residents about resources available (Georgetown, Harpswell). Some municipalities have opt-in communication options (Brunswick and Bath Police Department's "Good Morning" program). Phippsburg included a*

questionnaire in tax bills asking residents if they wanted to be added to a list of residents that would be checked on during an event.

■ *EMA/Dispatch and local EMAs have some capacity to maintain a list of vulnerable individuals' locations who have opted in to being identified. These lists cannot be shared with other organizations due to privacy concerns. Code-Red is an opt-in service that provides an opportunity for direct communication. Yellow Dot program could be used to help first responders, responding to an individual at their home.*

■ *Several social service agencies provide communication and check in services for clients. Some social service agencies disseminate information received from EMAs about shelters and other available resources and disseminate information to other social service agencies.*

■ *Conservation organizations have newsletters and other forms of communication that could be repurposed for communicating about storm impacts and resources available.*

● **GAP**: An emergent vulnerability is cyber security that could disrupt communication systems and resources and could target municipalities specifically. (stated 1 time during the exercise)

Collaboration All sectors identified siloed response and the need for more formalized partnerships. A clear area that emerged was the need to coordinate identification of infrastructure impacts and work across sectors to identify, repair and seek funding for longer term infrastructure improvement. Key themes within this section were developing partnerships with the business community to better meet their needs and tapping into businesses' resources. Participants identified EMAs as a critical resource, but also articulated the need for the EMA sector to engage, communicate and coordinate with other sectors

> *"It seems that many groups are very active in their own 'siloes.' Establishing more cross-over working during non-emergency times means greater resilience during an emergency."*
>
> *Social Service sector participant*

● **GAP**: The need to better identify who is most vulnerable to the impacts of storm events, through mapping and better data was reported by all sectors. Recognizing that different organizations have different levels of awareness of and connections to vulnerable community members, participants from all sectors describe the need for a greater degree of collaboration and information sharing across sectors that leverages each sector's roles and strengths. A related concern was how best to meet the needs of vulnerable populations, while also protecting the privacy of vulnerable individuals. Participants described existing mechanisms for identifying vulnerable community members but limitations in being able to share that information across sectors. One specific vulnerability expressed across many of the discussions was understanding who may still be in seasonal homes during storm events. Organizations also described the need to include social vulnerability planning into longer term planning processes. Additional vulnerabilities mentioned were mental health issues associated with the impacts of increased storm events, and distributed impacts on the natural resource sector (stated 21 times during the exercise)

○ *Existing Resources:*

■ *All sectors could participate in a replication of the SRP's exercise in the future to continue to learn about each other and develop strategies for ongoing collaborations.*

- County **EMAs** regularly hold table top exercises that could incorporate resilience components.
  - **Conservation organizations** can contribute information they have compiled on areas and residences at risk of larger impacts from storms and climate change impacts.
  - **Social service agencies** can provide some information on vulnerable populations' needs and who would be impacted based upon clients served.

- **GAP**: Need to formalize informal connections and strengthen ties across sectors for planning processes, addressing vulnerable infrastructure, leveraging resources that are sector specific, and identifying and meeting the needs of vulnerable community members. There is a need to connect sectors that may not have traditionally worked together, such as conservation and emergency management agencies. Related, connecting EMAs more closely with social service organizations that have ties to the community would leverage EMAs' capacity to amplify and promote the efforts of these organizations. Municipalities identified a gap in their ability to provide direct resources until an emergency had been declared. Finally, organizations and municipalities articulated the need for a directory of organizations who could be tapped to support the needs of vulnerable population members.   (stated 14 times during the exercise)
  - ***Existing Resources***
    - **Conservation organizations** can be key partners in information dissemination, deploying volunteers, leveraging partnerships for capacity building, and drawing upon expertise in longer term planning processes. Conservation organizations can also be key partners in identifying resources for addressing food insecurity during and after a storm event through partnerships with Merrymeeting Gleaners and MOFGA. Additionally, conservation properties could be a resource for procuring food (community gardens) as well as provide locations for mobile food pantries.
    - **MEMA** can provide resources and logistical support through county EMAs; during a storm event county EMAs can provide coordination systems and essential resources such as generators. EMA National Incident Command System (NCIS) might provide a structure to facilitate partnerships across sectors.
    - **Municipalities** can serve as local coordinating entities to connect local EMA, local social service agencies and local conservation groups.
    - **Social Service** groups like 211 can provide a way to identify organizations that provide specific resources.

- **GAP**: The need for engagement with the business community, both to leverage resources in support of meeting the needs of vulnerable populations and to understand ways in which small businesses/and businesses in the natural resource sector are impacted by coastal hazards. (stated 12 times during the exercise)

- **GAP:** The need for better information in advance of storms to deploy resources to support vulnerable populations. (stated 1 time during the exercise)

Capacity. Each sector described gaps in capacity including providing language translation services, funding needs, human resource capital, and the potential impacts of storm events on front line workers in their ability to respond. Sectors also described the need for longer term planning processes and the challenges of having the capacity to respond in the longer term when facing current challenges. Overall, participants described the need across all sectors for more human resources, financial capacity, and training capacity. Sector representatives described the need for more and better data in the form of a needs assessment of who is vulnerable, where they live, what kind of support or resources are needed, and what support is currently available.

> *"We would need resources to involve staff in the planning that needs to happen in our region. Our grants don't cover the staff time needed to be engaged at a meaningful level."*
>
> *Social Service sector participant*

- **GAP**: Longer term resilience planning at the organizational and regional levels to meet the needs of vulnerable community members and funding to support this planning. Participants articulated the need for more pre-planning processes as well as opportunities for debriefing after storms and other coastal hazard events occur. Participants also described challenges in engaging planning processes beyond EMA planning horizons of responding to and recovering from an event, extending six months and beyond. For social service organizations, the gap is in capacity to plan for future events while meeting the needs of current service recipients and enabling incorporation of lived experiences of those who are most vulnerable. (stated 17 times during the exercise)
    - *Existing Resources*
        - *Conservation organizations can educate landowners about the need for culvert replacement to handle larger storm events and other resilience measures such as cutting back trees. Conservation organizations' expertise in longer term resilience planning can be shared with other sectors as well as the capacity to educate and inform their membership about longer term resilience planning.*
        - *EMAs can contribute to processes that prioritize and identify funding for infrastructure.*
            - *Cybersecurity & Infrastructure Security Agency (CISA) Region 1 staff and Protective Security Advisors can be a resource for helping identify vulnerabilities to enhance resilience by planning for those vulnerabilities CISA Region 1 staff available to work with communities on submitting a nomination to the Regional Resilience Assessment Program (RRAP).*
            - *MEMA can provide support for municipalities in forming a Community Emergency Response Team (CERT).*
            - *EMAs can include social service agencies when they hold tabletop exercises, expanding the reach and depth of planning beyond the current resilience-based workshops that are based upon incident command structure and hazard mitigation planning.*
        - *Municipalities are engaged in longer term planning processes to mitigate future impacts of coastal storms, including identifying areas that will likely be impacted and identifying culvert replacements that can increase resilience to storm impacts and sea level rise. Harpswell's Emergency Operations Pre-Planning process can serve*

as a model. GOPIF Community Resilience Grants could be accessed to address specific gaps identified in the scenario planning process.

- **GAP**: The need for more human capital and funding during planning (developing resilience plans), responding (clearing debris, documenting damage), and recovering (procuring funds for repairs) was the second key capacity gap and was identified by all sectors. Many organizations also described concerns with the impact on front line workers, the need for additional, professional staff, and an overreliance on volunteers for key roles. Many organizations described the impact of labor shortages on their organization as a result of storm impacts and the difficulty of providing services six months out from an event. Overall, organizations described the impacts of labor shortages on operations during and after a storm, A key dimension of gaps in capacity was the lack of a current system to best connect resources across sectors. Allocating volunteers, accessing funding opportunities, or developing regional strategies to address the impacts of coastal hazards on vulnerable populations area all hindered by the lack of clear information on existing organizations and their capacities. (stated 17 times during the exercise)
    - *Existing Resources*
        - *All sectors. A draft Asset table has been developed by the Social Resilience Project Team. GOPIF Community Resilience Partnership grants for municipalities and regional service providers are a potential source of funds to increase capacity.*
            - *211 provides one way to search for organizations that offer services to meet the needs of socially vulnerable populations*
        - *EMA County EMAs and MEMA can access federal funding for mitigation assistance and provide assistance to local municipalities in applying for funding to address infrastructural impacts after a disaster declaration. EMA representatives also discussed the potential for funding to support general and mental health challenges associated with disasters.*
            - *EMAs can provide training resources for building capacity of organizations in responding to coastal hazards.*
        - *Conservation organizations can tap volunteers for recovery efforts, facilitate connections with local communities, and leverage state partnerships for funding and other ways to address capacity needs.*
        - *Municipalities can be a source of funding for heating assistance and firewood to address shorter to longer term impacts and can access GOPIF funding.*
        - *Social service agencies can assist with donation management during an event and matching volunteers with needs.*

- **GAP**: 'The challenges of clearing debris, and/or repairing infrastructure in the short term, as well as documenting damages, identifying funding for repairs, and developing capital improvement planning in the long term.' (stated 3 times during the exercise)
    - *Existing Resources*
        - *Conservation organizations can deploy volunteers to assist with clearing debris, documenting damages and accessing grants for culvert replacement and repair.*
        - *Social service agencies can deploy volunteers for debris removal and minor repairs and assist with documentation of damages.*
        - *Municipalities can provide documentation of damage and debris impacts.*

- **GAP:** Building more localized connections within communities at a neighborhood and neighbor to neighbor level as a way to both be aware of which members of our communities are vulnerable to the impacts of coastal hazards and as an approach for communicating resources that are available. (stated 1 time during the exercise)
    - ***Existing Resources***
        - ***Conservation organizations*** *can contribute to building social capital through their educational programs by building connections between those who attend the programs.*
        - *Some* ***municipalities*** *have neighborhood groups that have emerged to address vulnerable populations. Harpswell is one example.*

- **GAP.** Food insecurity will continue to be a challenge as we see increases in these types of events. Social service agencies expressed the need to prepare for the increasing frequency of these storms.   An ongoing concern will be to provide culturally appropriate food (stated 3 times during the exercise)
    - ***Existing Resources***
        - *Some* ***social service organizations*** *are expanding capacity to provide culturally appropriate foods.*
        - *Conservation organizations in the region are already working on food insecurity issues*.
        - *The pandemic highlighted opportunities for* ***conservation*** *and* ***municipal sectors*** *to contribute to address food insecurity*.

Physical Infrastructure.

Participants described gaps, resources and recommendations focused on physical infrastructure and the role of physical infrastructure in the larger discussions of how as a region we can better meet the needs of vulnerable community members. The impact of coastal hazards on physical infrastructure was identified by most participants. In the context of the scenario planning exercise, participants specifically described the importance of evaluating physical infrastructure in terms of implications for vulnerable populations.

- **Gap**: During storm events, transportation including roads, bridges and public transportation systems are impacted, hindering efforts to respond to vulnerable populations and provide resources and services to vulnerable community members. At the same time, organizations identified a gap in capacity to address lingering impacts 6 months after a storm event. In the longer term, a gap exists in knowing which areas will be impacted by the physical impact of a storm. (stated 8 times during the exercise)
    - ***Existing Resources***:
        - ***Conservation organizations*** *may have availability of boats that could be deployed during response and recovery if impacts to the transportation network cut off people completely.*
        - ***County EMAs and MEMA*** *can access federal funding for mitigation assistance and provide assistance to local municipalities in applying for funding to address infrastructural impacts, after a disaster declaration. There is also funding to support general and mental health challenges associated with disasters. EMAs collaborate*

with CMP to address downed wires and loss of electricity.

- **GAP:** Limitations of communication systems due to lack of internet access or access to landline or cell phone. (stated 5 times during the exercise)

- **GAP**: Housing and shelter during and following a storm event. This included limited beds at local hospitals, shelter space, in the longer-term, shortages in temporary housing for individuals displaced from home damage, and overall lack of affordable housing that might be exacerbated by storm impacts on housing stock. If schools serve as evacuation centers or shelters, this can disrupt students and families' lives, further increasing their vulnerability. (stated 5 times during the exercise)

- **GAP:** Private roads and other shared private infrastructure can present challenges to regionalized planning processes focused on resiliency and preparedness. (stated 2 times during the exercise)

- **GAP**: Impacts to working waterfronts have a direct impact on residents employed in the natural resource sectors. (stated 1 time during the exercise)
    - ***Existing Resources****:*
        - ***Conservation organizations*** *are identifying longer term planning opportunities for adaptation of working waterfronts to storm and climate change impacts and expanding opportunities for access to coastal areas.*

Recommendations

As part of the exercise, participants identified recommendations to address gaps that were identified. We have synthesized these recommendations into 10 specific recommendations to help identify next steps.

Address Communication Gaps

(1) **Develop a Communication Strategy.** Develop a strategy for sharing information that provides specific information for vulnerable populations. In particular, develop a strategy for providing information for New Mainers as well as other area residents for whom English is not their first language. One suggested strategy is to have EMAs work more closely with social service agencies who currently provide information to New Mainers.

    (a) Information on how to access resources is made available to residents across all communities. This information, provided in multiple languages, would include resources available, contact information and could be modeled on examples developed in Georgetown and Harpswell.

    (b) To counteract the loss or lack of internet, have multiple approaches (TV, news, text). Participants stated the importance of having clear information and ensuring that there was no misinformation. Some towns have local information for residents that is distributed house to house or through other municipal communications.

(2) **Organize Opt-in Services.** Develop a comprehensive list of opt-in services and check in services across EMA, municipal, and social service agencies.

    (a) All sectors can promote these options using a unified message. Social service, conservation, EMA and municipal communications encourage signing up for opt in notification systems such as CODE-RED, Yellow Dot and morning check ins in their regular communications.

(3) **Create Unified Communication System.** Develop a system for regular unified communications possibly under tagline "Midcoast Community Resilience" through EMAs that incorporates recommendations for strategies for shorter and longer time frames to be sent out through identified organizations.

Strengthen Collaborations

(4) **Hold Future Scenario Planning Exercises**. This can take one of several formats:

    (a) Expand the role of EMA tabletop exercises to address some of the concerns raised in the Social Resilience Scenario Planning exercise by including more social service organizations and building in a dimension of addressing the needs of socially vulnerable populations by

> *"A multi-sector approach to planning and preparation is paramount. The exercise illustrated that different sectors share common areas of programmatic focus, however they may work in isolation from one another and therefore, there is a need to form new partnerships and specifically, to bring sectors together in planning and preparation work."*
>
> *Conservation sector participant*

engaging social service and conservation organizations as part of tabletop exercises more regularly.

    (b) Hold scenario planning exercises to continue to explore opportunities for identifying who is vulnerable, where vulnerable populations are living and ways to incorporate social vulnerability planning into existing planning processes within each sector.

    (c) Repeat the Scenario Planning Exercise in one year to test any changes in response, recovery and planning.

(5) **Increase Connections with County EMAs.** County EMAs have a critical role in orchestrating communication and response and their work can be enhanced by strengthening current partnerships and also collaborating more closely with social service and conservation organizations on planning, responding and recovering from storm events.

    (a) Social service and conservation organizations contribute to hazard mitigation planning processes.

    (b) Conservation organizations that are developing longer-term resilience plans can provide a mechanism for longer term planning that ties these planning processes more closely to EMA hazard mitigation planning processes while also incorporating a focus on impacts of coastal hazards on vulnerable populations.

    (c) Provide a web-based shared crowd-sourced venue for documenting debris. Hold workshop with EMA about documenting and clearing debris.

(6) **Develop a Directory of Contacts.** Develop an inventory of local organizations to include in planning processes that can be updated through Cumberland County EMA and Sagadahoc County EMA and that builds upon or is a component of 211

    (a) Contact names for tapping volunteers across sectors that can assist during the response and recovery phase.

(7) **Engage Businesses in Coastal Hazard Coordination.** Identify businesses at risk to coastal hazards as well as businesses that can be a resource during all stages of a coastal storm. Engage the business sector in future Scenario Planning Exercises and in hazard mitigation planning processes conducted by EMAs and in training and programs developed by EMAs.

Build Capacity

(8) **Expand the Role of Community Emergency Response Teams (CERTs).** Building upon successful models in the region, and leveraging resources from county and EMAs to provide training and resources on establishing a CERT.

(9) **Seek Additional Funding.** Identify funding opportunities for building the region's capacity to meet the needs of vulnerable community members, particularly focused on opportunities that can fund some of the priorities identified by participants in the scenario planning exercise.

    (a) Municipalities can apply for funding through new GOPIF programs.

    (b) Municipal planning processes that identify areas most at risk from impacts of coastal hazards can tap social service, EMA and conservation groups to incorporate strategies for mitigating the impact of coastal hazards on vulnerable populations.

(10) **Provide Education About Funding Opportunities** Hold a workshop for area organizations on funding opportunities tied to hazard mitigation planning to allow social service, municipal and conservation organizations to better understand funding cycles, the role for documentation during storm events and strategies for collaborating across sectors to secure funding for longer term hazard mitigation.

Action Plan: Where we go from here.

Participants were asked to prioritize the recommendations as part of the wrap-up meeting in June 2022 as well as in a post-event survey conducted during the summer of 2022.

The following is the prioritization of the recommendations:

1. Develop a communications strategy
2. Increase Connections with County EMAs
3. Provide Education About Funding Opportunities
4. Create Unified Communication Systems
5. Organize Opt-In Services
6. Develop a Directory of Contacts
7. Hold Future Scenario Planning Exercises
8. Seek Additional Funding
9. Engage Businesses in Coastal Hazard Coordination
10. Expand the Role of Community Emergency Response Teams (CERTs)

The prioritization list is combines the results of the survey taken during the meeting in June 2022 and a post-survey to participants who were not able to join the June 2022 meeting.

Additionally, participants shared some of the ways that they have applied the experience of participating in the exercise to their own organizations include re-examining pre-storm event processes, incorporating planning for vulnerable populations in future planning processes, and working across sectors for emergency planning processes.

A next step outcome is documentation of the scenario planning exercise process for adaptation to other areas and replication of the scenario planning exercise to another coastal region.

"Very worthwhile – needs to be replicated in other locations and perhaps at different geographic scales."

Participant

Appendices

The following Appendices provide additional information, summarizing discussions among participants at the scenario planning exercise, and provide responses from the pre and post surveys. The information is included to assist with future grant opportunities, to facilitate future collaborations, and aid in identifying resources by sector that can address an organization's needs.

Appendix A - Resources

The following list of resources includes suggestions for possible resources shared by participants during the scenario planning exercise or in either the pre or post surveys.

Food Insecurity
- The Food Solutions New England winter series is a good place to start. https://foodsolutionsne.org/winter-series-2022/
- This session at the end of February is one way to understand the impact of having impacted groups in the room. https://foodsolutionsne.org/event/fsne-winter-series-4-narrative-power/

Funding sources
- Cumberland County EMA collects damage assessment information in trying to request a disaster declaration after severe storms
- County EMA resources: www.cumberlandcounty.org/ema and www.ready.gov
- State's new Community Resilience Partnership grant and assistance program: https://www.maine.gov/future/climate/community-resilience-partnership

Planning and capacity building
- Cumberland County Hazard Mitigation Planning Hazard Mitigation Plan | Cumberland County, ME - Official Website
- Sagadahoc County Hazard Mitigation Plan: Hazard Mitigation (sagadahoccountyme.gov)
- www.cumberlandcounty.org/ema and www.ready.gov
- CISA Region 1 staff and your Protective Security Advisors (PSA) could also be a great resource for helping enhance resilience and identifying vulnerabilities Region 1: What We Do | CISA
- Stakeholders are also welcome to work with their CISA region 1 staff and PSA on submitting a nomination to the Regional Resilience Assessment Program Regional Resiliency Assessment Program | CISA
- CISA's RRAP program and the IRPF document. Casco Bay example: https://globalresilience.northeastern.edu/rrap/
- IRPF = Infrastructure Resilience Planning Framework. For more information on IRPF (and more on CISA's resiliency planning efforts) https://www.cisa.gov/idr-program
- Regarding asset identification, check out CISA's RRAP program and the IRPF document (Infrastructure Resilience Planning Framework)
- Example of RRAP in Casco Bay https://globalresilience.northeastern.edu/rrap/
- Harpswell's Emergency Operations Pre Planning as a model for ways to engage volunteers and make connections (
- National Incident Command Structure National Incident Management System | Maine Emergency Management Agency
- Cumberland County EMA participates in planning/training and exercises before a storm, CodeRed
- Yellow Dot program

Volunteers
- State level volunteer matching (Home | Volunteer Maine

Appendix B - Actions taken by each sector immediately after and six months after storm event

Module 1: Immediately after a storm

Sector	Actions
Conservation	Opening trails In general, conservation organizations described not being as involved at this stage Collecting information on damages (but not necessarily linking this to EMA data collection efforts) Concerns about employees needs
Social Service	Checking in with families who may be vulnerable or calling populations served by organization Coordinating with municipal sector Mobilizing volunteers Providing information on resources On site food pantries or helping to meet the needs of food insecure through WIC Coordinating with county EMA Setting up operations at facilities to support outreach and programs for impacted populations and provide warming center for residents as needed Translation of information into non-English for residents (where capacity is available)
EMA	Coordinating with municipal sector Coordinating with CMP to restore power Identification of blocked roads Share updates on storm impacts Deploying generators Beginning to document damages in the event emergency declaration is needed Opening shelters as needed
Municipal	Looking at washout and culvert issues without a focus on vulnerable populations unless receive communication directly from fire or police Coordinating for emergency repair Prioritization of repairs Collaborating with state agencies (DOT, DEP) Focusing on opening roads Coordinating with CMP

Module 2 – 6 months after a storm

Sector	Actions
Conservation	Providing assistance for insurance needs and providing support for small

	businesses Longer term planning involves working with those in the natural resource sector regarding access to waterfront areas and impacts on water quality Continued engagement with meeting needs of food insecure Collaborating around infrastructure repairs and educating landowners about culvert impacts
Social Service	Identifying housing options for individuals who are still in temporary housing Longer term need to address impacts of lack of affordable housing Debriefing on impacts of storm and how this informs planning for next event Fostering conversations about equity in connection with housing Acknowledging that needs of clients have likely increased Beginning to focus on preparation for next step Updating resources and continuing to provide referrals Using informal networks to connect with vulnerable community members Identifying future planning processes
EMA/Red Cross	Importance of taking a whole community approach Reaching out to businesses and also individuals who are underinsured or uninsured
Municipal	Documenting and repairing infrastructure Applying for funding and technical assistance Potential role is convening stakeholders who are also thinking about infrastructure repair General assistance can help to supplement for residents who are still waiting on insurance payments

Appendix C - Social Vulnerabilities identified by participants

During the exercise, participants reviewed a list of socially vulnerable populations, area residents most likely impacted to a greater extent by storm events. The following table indicates vulnerable populations described by participants and the number of times across all break out rooms that a particular population was mentioned. By providing this information by each module, participants can see who may be most vulnerable at different timelines (directly after the event and six months after the event). Participants also identified additional vulnerabilities that were not included in the original list presented at the start of the exercise; these vulnerabilities, marked with an asterisk (*) are presented at the end of the table.

Population	Module1	Module2	Ways they would experience vulnerabilities
Below poverty	5	2	May experience lack of heat and power in advance of a storm. Concerns were expressed about individuals becoming newly vulnerable and experiencing the impacts of increasing storm events as leading to potential increase in poverty.
Unemployed		1	Concerns expressed about increasing unemployment that might arise due to impacts still felt six months out from event
Employed in natural resource sector	3	6	May be impacted if they lose access to working waterfront, particularly if damages are sustained 6 months out and also if storm events cause water quality impacts on tidal flats. The additional impact of this vulnerability is the community impacts of loss of natural resource employment, even if temporarily, as many components of a community might be dependent upon a maritime industry. Loss of access to waterfront properties due to shifts in waterfront properties
Self-employed		5	This may intersect with small business owners
Low income	2	1	This was also referred to as the working poor
Educational attainment (less than high school degree)			
65 or over	9	3	This can often be connected with a population that is food insecure and those individuals experiencing health impacts that would be exacerbated by the impacts of the storm
65 and over and living alone	3		
18 or younger	2	4	Longer term impacts of having school and day care centers disrupted.

Civilian with a disability	4		From post survey open ended, populations who depend on oxygen and/or other medical equipment that requires electricity, people who require access to medications and/or in-home daily medical services
Single parent household	1		
BIPOC			
Speaks English Less than Well	2	2	
Multi-unit structure	1		Concerns about density and possible failure of septic systems
Mobile homes	6		Concerns about density and possible failure of septic systems and structures may be at greater risk. There may be a need for a pre-assessment
Crowding	1		This presents challenges as individuals need to share spaces and there may be cases where caregivers need to be in the same room, sleeping on the floor
No vehicle	4	1	Concerns expressed about lack of vehicle access and even having ability to pay for fueling a vehicle. Vulnerabilities around transportation also focused on inability to drive and challenges in accessing food for populations who are both food-insecure and do not have a transportation option.
New Mainers	4	2	New Mainers were identified consistently across all sectors due to challenges of language, cultural barriers, and access to technology. Another area of concern that intersected with housing insecure is that New Mainers are not eligible for federal housing assistance programs. Another articulated area of concern is the need for residents new to the area to know where evacuation routes are, how to get help and how to report damages
Individuals new to Maine	2		Individuals new to Maine who may not be familiar with navigating coastal storms and storm preparation. This category overlaps with other categories such as seasonal residents, New Mainers and may encompass in migration associated with the pandemic.
LGTBQ			
Uninsured/Underinsured*		1	Gaps in medical care and insurance represent a vulnerability. Residents who do not have insurance of a PCP must rely on emergency services
Food	2	2	Many organizations identified this as a specific vulnerability.

insecure*			This vulnerability is tied to many others (households in poverty, over 65 and living alone, under 18, low-income). Concerns expressed about newly food-insecure after a six month interval
Housing insecure*	3	5	This category includes individuals who lack housing and also may need to still be sheltered in housing 6 months after storm. A particular gap that was identified was unhoused youth
Isolated populations*	13	3	Participants described different types of isolation including geographic isolation due to roads being impassable as well as social isolation which results in not knowing what vulnerable community members' needs are. A dimension of isolation are residents who may need services but do not want to ask for them. This can be particularly concerning if residents are reliant on oxygen and lose power or need special medical attention. In some cases, the concern is whether the individuals have chosen to be isolated and others may not know about any medical or health needs and may not be connected to their neighbors
Seasonal residents*	2	3	Similar to newer residents who may have moved in during COVID, another vulnerable population are individuals who stayed longer, through the fall and beyond
Small business owners*	1	4	This may interact with self-employed. Smaller businesses may be impacted to a greater extent by coastal storms and challenged by needing to apply for funding support and other documentation
Other*	1 1 1	5	Victims of domestic abuse Substance use disorder Mental health challenges Individuals who are pregnant
Newly vulnerable*		4	Individuals who are experiencing one or more vulnerabilities but do not have the experience to know what resources might be available to them or who may be isolated and have not needed to seek help before.
Frontline workers*		2	Individuals who work in the emergency and social service sector who may become vulnerable due to storm impacts and unable to provide support and assistance

*Vulnerabilities described by participants that were not include in the original list of vulnerable populations at the start of the exercise

Appendix D - Gaps and resources identified by sector

Gaps by sector:

- **Conservation** sector representatives describe gaps in building longer term climate resilience planning.
- **EMA** representatives describe gaps in coordinating documentation of damages to ensure funding can be secured to address impacts. A second gap identified by representatives from EMA is enhanced coordination between EMA and social service agencies.
- **Social service** agencies described the need for longer term planning around trends impacting socially vulnerable populations such as affordable housing and food security. A second gap was the need to prepare for increased frequency of storms and the ability to anticipate the impact of storm events.
- **Municipal** representatives describe a gap in being able to identify socially vulnerable residents who were impacted or made newly vulnerable by the impacts of storm events. Refer to the table (in an appendix C)

Resources.

While there were many gaps identified, there were also many opportunities for sharing of resources to enhance communication, capacity, and collaboration opportunities. In discussing existing resources and gaps, several opportunities emerged.
- **Conservation** sector representatives described have resources such as boats, access to volunteers, support for work on infrastructure replacement funding and supporting food security planning. As many have active communication with members, they can also support existing messaging. Additional resources include the ability to assist with clearing of debris in the aftermath of a storm and assistance with documents. Funding capacity is available through accessing grants that target infrastructure (culverts) that enhance habitat resilience. More broadly, conservation organizations identified opportunities for greater community building through their work and programs.
- **Social service agencies** described resources for identifying vulnerable community members, access to volunteers, assistance with communication challenges (connecting with translators for example) and mechanisms for facilitating volunteer matching. Many social service agencies are in direct connection with vulnerable community members through check ins. Many also receive alerts from EMA agencies. As part of many organizations' missions, social service agencies are closest to providing services to address food insecurity, housing insecurity, mental health needs.
- **Municipal** representatives describe local efforts that can serve as models including neighborhood development programs and opt-in communication systems such as newsletters or other alerts. Municipal representatives are mostly closely tied to all of the sectors (conservation commissions, EMA staff, social service agencies) as part of responding to and recovery from storm events (development of localized communication for residents that can be distributed through the town on accessing resources during and after a storm.
- **EMA** is a linchpin in leverage resources during the active response mode. County EMAs serve as the conduit of information and resources between MEMA and local EMAs. In the longer term, documentation of damages is important for leverage funding and coordination of hazard mitigation plans with local communities enhances opportunities for funding in the aftermath of a storm.

Identification of infrastructure likely to be impacted as part of the hazard mitigation plans enhances funding opportunities.

Gaps -

The following themes were discussed in the breakout sessions, the numbers at the end of each description, indicate the number of times the themes were mentioned in the breakout room by participants.

Sector	Gaps
Conservation	- Communication (8): - Communication/Need for communication to be accessible and in multiple languages 7 - Communication: need for unified message across sectors 1 - Capacity (8): - Capacity to engage in planning and responding to coastal storm events, defining possible role of conservation organizations 4 - Importance of pre-planning for events 2 - Challenges associated with capacity - we are relying on members of a community to support other members; and need to bring in help from outside a community 1 - Capacity: need for funding to address vulnerabilities 1 - Provide information for mitigating the impacts of SLR 1 - Collaboration (14): - Need to connect conservation sector and emergency management to find synergies for planning and implementing infrastructure replacement; Formalize informal connections and develop cross-sector partnerships 3 - Need for support for businesses, natural resource employed sectors to access funding to mitigate damages 4 - Need to connect resources that may be available from businesses (as short-term shelters) 1 - Vulnerable populations- Lack of knowledge of who is vulnerable and resources available: need for better data 5 - Vulnerable populations: Need to address mental health issues six months out from storm 1 - Long term planning (9): - Need to build longer term climate resilience, longer term planning processes and education around this, and partnering with organizations towards this goal 6 - Need to understand longer term impacts of storm events on natural resource industries 2 - Transportation and infrastructure (6): - Ensuring transportation is available 3 - Access to working waterfronts and impacts of loss of transportation for resource-based sectors and continued access to coast 1 - Addressing energy infrastructure to minimize outages/Ways to respond when electricity is out/addressing electricity infrastructure 2
EMA	- Communication (11) - Need to prepare and educate New Mainers and challenges of language (including ASL) and literacy 4 - Communication and getting information to the right person (vulnerable populations) 3 - Connectivity issues and ability to access internet 1 - Need to expand existing opt in communication systems (i.. Only 1% of Cumberland County has signed up for Code Red 3 - Capacity (9): - Capacity for maintaining roads and plowing roads which can be a barrier

	to provide emergency assistance. In general accessing residents 2 ○ Lack of labor, workforce capacity 1 ○ Need to establish emergency response teams and lack of capacity to start CERT teams 3 ○ Front line workers might be impacted themselves and have limited capacity to respond 1 ○ Reliance on schools for evacuation center and shelters and how this could disrupt students and their families lives 1 ● Collaboration (9) ○ Connecting with social service agencies that often have resources that can be provided 2 ○ Relationship needs to be established between local organizations and communities and county EMA 1 ○ Resources need to flow through County EMA from MEMA so organizations need to coordinate and communicate 1 ○ Vulnerable populations: Challenges identifying where vulnerable populations are 3 ○ Vulnerable populations: Impact on businesses and need for insurance, and funding 1 ○ Need for documentation of damages 1 ○ EMA is unaware of some social services and other organizations with relationships with the community resulting in EMA not able to amplify/promote efforts 1 ● Long term planning 3 ○ For longer term planning processes, EMA is not as involved at this stage beyond documenting damages and pursuing funding 2 ○ Need for continued engagement across sectors at longer time lines 1 ● Infrastructure 1 ○ Private roads present a challenge in terms of management and emergency response 1 ○ Limited bed capacity at area hospitals 1
Municipal	● Communication (13) ○ Limited access to internet and implications for notification 2 ○ Need for distributed information to homeowners containing key information. Templates are available but dissemination is key 3 ○ Importance of having individuals opt into communication systems such as Code Red 3 ○ General communication gaps and identification of modes of communication that are most effective 1 ○ Connecting with and communicating with New Mainer populations and others, associated lack of knowledge of residents who speak English less than well and communicating with New Mainer population 3 ○ The need for a formalized communication network 1 ○ Directory of information about organizations 1 ○ In preparing and developing new communication systems, an emergent vulnerability is cyber security that could disrupt communication systems and resources, and could target municipalities specifically 1 ● Capacity: (1) ○ Need for CERT, lack of capacity to start CERT 1 ● Collaborations (9) ○ Providing support for natural resource industries and businesses 1 ○ Limitations from a municipal perspective in providing direct services and potential limitations on actions until an emergency has been declared 2 ○ Challenge of identifying where vulnerable individuals are and associated with this lack of knowledge of social implications of prioritization of

	culverts (i.e. which repairs have the greatest implications for vulnerable populations) and need for data to identify these 5
	○ Although local EMAs may know about vulnerable residents, due to HIPPA concerns, this information cannot be shared
	○ Need to connect with working poor- individuals who may need help but do not request help 1
	● Infrastructure (5)
	    ○ Lack of shelter available 1
	    ○ Road infrastructure and impacts from storms 2
	    ○ Addressing physical impacts on road infrastructure 6 months out 1
	    ○ Knowing which areas will be impacted by the physical impacts of storms and prone to flooding 1
	    ○ Challenges of private roads 1
	● Long term planning (1)
	    ○ Need for proactive planning 1

Social Service	● Communication (17):
	    ○ Providing means for communicating in advance of a storm 1
	    ○ Ways for getting information out in a accessible format in multiple (appropriate) languages and formats (radio, TV or along lines of what Harpswell and Phippsburg has done3
	    ○ Language barriers both for residents whose first language is not English but also individuals who cannot read 2
	    ○ Providing information on preparing populations who are not familiar with current conditions in accessible languages 1
	    ○ Differences in communication used (i.e. New Mainers use WhatsApp) 1
	    ○ Connecting vulnerable residents more quickly to resources and getting emails from populations served 3
	    ○ Communication challenges for residents who do not have a cell phone 1
	    ○ Need for a directory of information about local organizations and resources 1
	    ○ Communication challenges associated with not knowing who is receiving what information in a community 2
	    ○ Challenges around internet access 1
	    ○ Information is siloed and need for greater collaboration 1
	● Capacity (11)
	    ○ Need to connect within communities and neighborhoods 1
	    ○ Social service agencies articulated gaps in funding and the continued need to access more funding to support vulnerable populations 2
	    ○ Capacity - social service agencies are impacted by events and are not available to assist 1
	    ○ Providing support services six months out from event 2
	    ○ Labor shortage is exacerbating ability to respond and concerns expressed about overreliance on volunteers 4
	    ○ Capacity needs associated with shorter term response- such as getting the National Guard in place to provide support 1
	    ○ Social service agencies are needing to address power outages, inability for staff to get to sites in order to provide basic services during a storm
	● Collaboration (6)
	    ○ How to involve businesses in helping to plan and respond 2
	    ○ Need to identify who may still be living in seasonal homes 1
	    ○ Need for mapping of residents who are vulnerable and data on where vulnerable populations are located 1
	    ○ Vulnerable populations: Difficult to develop a comprehensive list of vulnerable population members due to HIPPA and the need for each organization to maintain their own list 1
	    ○ Vulnerable populations: Within six months, we may still be facing

	shortages in temporary housing for individuals who have been displaced and populations who may be experiencing home damage, loss of food 1
	      ○ Vulnerable populations: Residents may not know about sources of information, particular residents who are newer to the area 1
	      ○ Vulnerable populations: Need to address longer term affordable housing 1
	  ● Transportation and infrastructure (3)
	      ○ Challenges posed by transportation barriers 1
	      ○ Transportation impacts which then impact ability to get food out to food pantries in communities or get to hospitals 2
	  ● Long Term Planning (5)
	      ○ Preparing in advance of storm by purchasing food in advance, purchase non-perishable foods and have infrastructure in place for residents to come to food distribution sites 1
	      ○ Need to incorporate voices of lived experience 1
	      ○ Need for longer term planning processes for recurring storm events while continuing to serve current populations 2
	      ○ Need to debrief after events and plan for next storm 1

All	● Communication gaps: there are challenges associated with limited internet access, loss of electricity, limited knowledge of digital communications, and limited access to cell phones. At the same time, all sectors identified lack of knowledge of what communication systems were currently in place and which organizations were communicating with other organizations ● Collaboration- all sectors identified siloed response and the need for more formalized partnerships. A clear area that emerged was the need to coordinate identification of infrastructure impacts and work across sectors to identify, repair and seek funding for longer term infrastructural improvement. A key theme within this section was developing partnerships with the business community in better meeting their needs and also tapping resources. ● Capacity- each sector described gaps in capacity which included everything from providing language translation services, funding needs, human resource capital, potential impacts of storm events on front line workers in their ability to respond. Sectors also described the need for longer term planning horizons and the challenges of having the capacity to respond in the longer term when facing current challenges

Post-Survey Results. Related to gaps identified in the breakout groups, participants identified resources needed to implement approaches identified or create new partnerships:

- Staff time
    - We would need resources to involve staff in the planning that needs to happen in our region. Our grants don't cover the staff time needed to be engaged at a meaningful level.
    - Need to create/find staff time.
    - Capacity assistance in documenting our emergency planning efforts.
    - Time and Commitment to prepare
    - Staff time primarily
    - Staff support from city.
- Planning meetings
    - Opportunities to brainstorm, plan, and coordinate
    - Advice on how best to gather other townspeople in these efforts
    - Relationship building, training and exercise to practice coordinating together
    - Training on ICS would be helpful.
    - Virtual meetings

- ○ Coordination of resources through a known central location/leadership.
- ● Funding
  - ○ Possible finances to invest in upkeep, replacement of infrastructure -freezers and refrigerators
- ● Other resources
  - ○ All contact information for other agencies and municipalities.
  - ○ Time and money
  - ○ I would need to see the plan created by the town and emergency planning units that results from this exercise.
  - ○ Additional forums like this would be helpful to encourage regionalization.
  - ○ Additionally, it would be helpful to have a forum open to members of the public as well.

Resources identified that can support resilience planning

       Representatives from each of the sectors identified resources. These topics and the number of times they were mentioned in discussions are listed below:

Sector	Resources
Conservation	- Communication: Information, and community building - 12 - Serve as an additional source for disseminating information, possibly for longer term planning horizons - 3 - Education of landowners about culverts and debris management (cutting back trees, etc) as well as longer term resilience measures - 2 - Building social capital through organizational structures and programs; implications for building neighborhoods - 1 - A source of information for vulnerable populations currently served (older residents and families with children); targeted information on how to help vulnerable populations prepare; resources for determining if vulnerable populations are in locations likely to be impacted - 1 - Volunteers able to be deployed - 2 - Connections with local communities and organizations - 2 - Leveraging state agency partnerships - 1 - Capacity: funding, food, supplies, volunteers - 8 - Capacity for clearing road debris - 2 - Ability to access grants for culvert replacement - 1 - Ability to identify culverts needing repair - 1 - Volunteers who could be mobilized to document damages - 1 - Volunteer capacity: Volunteers able to be deployed - 2 - Organizations such as Merrymeeting Gleaners and MOFGA and MCFA can be mobilized to help address food insecurity - 1 - Longer term planning - 2 - Assisting with longer term planning horizons around climate resilience and educational resources in this area - 1 - Longer term planning opportunities around access to waterfront - 1 - GOPIF Community Resilience Partnership program - 1 - Transportation and infrastructure resources: - Availability of boats for certain levels of response - 3 - Food insecurity - Leveraging conservation sector to assist with food security concerns through organizations' networks and lands - 1
EMA	- Communication - 3 - Translation services; some information available in multiple languages, Brochures on insurance - 1 - Manage opt -in communication systems including Code Red and community dispatch can track individuals who may need a check in - 1 - CEMA has developed magnet information for Harpswell. Georgetown has done this as well - 1 - Capacity building - funding, volunteers - 13 - Access federal funding for mitigation assistance and provide assistance for funding for local municipalities to address infrastructural impacts; accessing funding after disaster declaration- 6 - Assistance with accessing funding for programs that specifically support infrastructure as well as general and mental health challenges - 1 - Can contribute to prioritize of infrastructure and tie to funding available for natural resource benefits -1

	○ Pine Tree Society as a source of volunteers - 1
	○ CISA Region 1 staff and Protective Security Advisors can be a resource for helping enhance resilience and planning vulnerabilities
	○ CISA Region 1 staff and your Protective Security Advisors could also be a great resource for helping enhance resilience and identify vulnerabilities. (1)
	○ CISA region 1 staff available to work with communities on submitting a nomination to the Regional Resilience Assessment Program. (1)
	○ National Incident Command System (NCIS) - 1
	○ CISA's RAP program and IRPF document - 1
	○
	● Collaboration 2
	  ○ Collaborations with CMP and other state agencies such as FEMA - 1
	  ○ Need for collaborations with area businesses - 1
	● Planning processes - 9
	  ○ State level EMAs can provide resources and logistical support through county EMA - 3
	  ○ Provide coordinating resources to bring everyone together - 1
	  ○ Provide support in forming CERT - 1
	  ○ Going forward could manage scenario planning exercises that include social service agencies and have conducted resilience based workshops in the past; model approached based upon incident command; stakeholder engagement; hazard mitigation planning- 3
	  ○ Provide training resources - 1
	● Funding, food and supplies - 2
	  ○ Access to resources during storm event (generators) - 1
	  ○ Resource during event - 1

Municipal	● Communication -9
	  ○ Have a range of communication systems that can be used (cable TV, social media, email - 3
	  ○ Longer term planning processes to mitigate future impacts (guiding development for example) - 1
	  ○ Towns have provided localized emergency management information through Fire and EMA - 2
	  ○ Fire Departments and local EMA often know who vulnerable residents are - 1
	  ○ Some communities such as Bath has a "Good morning program" - 1
	  ○ Georgetown developed a guide on emergency response - 1
	  ○ Emergence of neighborhood groups (Harpswell) - 1
	● Collaborations - 5
	  ○ Can serve as local coordinating entity to connect local EMA, local social service agencies and local conservation commission - 5
	● Planning processes - 5
	  ○ Engaged in planning processes for culvert replacement and collaborate with EMA - 3
	  ○ Identification of areas of concern for hazard mitigation planning processes - 1
	  ○ Harpswell Emergency Operations Pre Planning as a model - 1
	● Funding, food and supplies
	  ○ Some municipalities have funding available for heating assistance and firewood - 1

Social Service	● Communication
	  ○ Information dissemination that is received from EMA about sheltering, resources, etc - 2
	  ○ Disseminate information to other social service agencies - 1

	○ 211 Maine has a resource guide - 1
	    ○ Provide resource information to individuals in the event of an emergency - 1
	    ○ Some social service agencies have translation services and a list of interpreter services - 3
	    ○ Some social service agencies are receiving alerts - 1
	● Documenting damages and impacts
	    ○ Documenting damage/impacts on businesses - 1
	● Capacity
	    ○ Donation management - 1
	    ○ Volunteer network available through social service agencies that can assist with debris (chain saw certified) or repairs - 3
	    ○ Volunteer management and matching services - 1
	● Vulnerable populations
	    ○ Checking in on vulnerable community members in advance and after storm - 2
	    ○ Identification of vulnerable populations members through yellow dot program - 2
	    ○ Identification of vulnerable population through populations served - 1
	    ○ Connections to vulnerable individuals through services (youth, elderly) - 1
	● Funding, food and supplied
	    ○ MCHPP has been working with local groups on culturally appropriate foods - 1
	    ○ Organizations can supplement current food security programs such as Merrymeeting Gleaners - 1
	    ○ Information available on food safety in the event of power loss (UMaine Extension) - 1

All	● Each sector has communication channels and coordinating messages across all sectors allows for multiple formats (email, newsletter, social media, person-person) ● Differences in planning processes if coordinated could be a strength

Appendix E – Participants/Participating Organizations

Conservation Sector – 11
        Land Trusts - 3
        Town Conservation Commissions or Climate Committees - 5
        State Conservation Organizations - 2
        Regional Conservation Organizations - 1

Emergency Management Sector – 4
        Town EMA Committee
        County EMA
        MEMA
        Red Cross

Municipal Sector– 7
        Planning and Development - 2
        Road Commission - 1
        Public Works - 1
        Manager - 2
        Select Board - 1

Social Service Sector - 11
        Housing - 2
        Food Security - 2
        Refugee Resettlement - 1
        Cooperative Extension - 1
        Senior Citizen – 3
        United Way – 1
        Other – 1