

DRAFT FOR PUBLIC COMMENT - OCTOBER 1 - 10, 2025



LINCOLN COUNTY 2026 HAZARD MITIGATION PLAN UPDATE

Prepared for the Federal Emergency Management Agency on Behalf of
Lincoln County, Maine

Lincoln County Emergency Management Agency
32 High Street, Wiscasset, Maine 04578
207-882-7559

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Table of Contents

Introduction	1
An overview of Lincoln County and the Hazard Mitigation Plan process.	
Element A: Planning Process	4
Details on the planning process that produced the 2026 Hazard Mitigation Plan Update.	
Element B: Risk Assessment	18
A detailed analysis of the natural hazards impacting Lincoln County.	
Element C: Mitigation Strategy	93
Hazard mitigation project lists and strategies provided for each jurisdiction.	
Element D: Plan Maintenance	160
Discussion of the maintenance and integration of the Hazard Mitigation Plan update.	
Element E: Plan Update	167
Summary of how the 2026 Plan Update reflects changes in development and priorities.	
Element F: Plan Adoption	170
Description of the Plan adoption.	

Table of Contents

Appendix A

Contains copies of all sign-in sheets, meeting agendas, and meeting minutes from planning meetings.

Appendix B

Contains a copy of the submitted survey responses to the “Lincoln County Hazard Mitigation Plan Survey for Municipalities”.

Appendix C

Contains a copy of the public announcements and notices for participating in the HMP update.

Appendix D

Copy of the Maine Infrastructure Rebuilding and Resilience Commission’s Final Report - A Plan for Infrastructure Resilience, May 2025

Appendix E

Copy of the Lincoln County Social Resilience Project Final Report, May 2025

Appendix F

Countywide and municipal base maps.

Appendix G

Adopted resolutions.

INTRODUCTION

Lincoln County is along the midcoast region of the State of Maine. It is a rural area made up of coastal towns and historical fishing villages, as well as inland towns along forested rivers.

The County contains 699.81 square miles, 65% land surface (455.9 square miles¹) and 35% water, with population of 35,237² per the 2020 Decennial Census. This results in a population density of 77.30 people per square mile. There are no U.S. Census designated Metropolitan areas in the County.

Government

The County Government contains the County Sheriff's Department and the County Jail; County Clerk's Office; County Treasurer's Office; Registrar of Deeds; Probate Judge; Assistant District Attorney; Emergency Management Office; and the Lincoln County Regional Planning Commission. The municipalities are responsible for other aspects of governance, and depending on their size will have their own police departments.

There are eighteen (18) incorporated towns in Lincoln County. Towns remain the cornerstone of local government. A Maine community becomes a town when it is incorporated by a special act of the Legislature. At that time, it is given certain privilege and responsibilities. Under Home Rule, towns may take any action or change their form of government in any way denied or precluded by state or federal law. The voters of the town constitute its legislative body. Day-to-day governance of towns has expanded from the original board of selectmen to include town managers, town council, budget committees, municipal departments and various professional managers. In a small number of Maine towns, the council exerts legislative control without a town meeting. In others, a ballot vote is used to approve the budget rather than an open town meeting.

Lincoln County contains one (1) organized plantation – Monhegan Island. Plantations are a type of local government unique to Maine. In Maine, they have continued as a basic governmental unit in small rural areas. Plantations are typically rural, heavily forested, and sparsely populated. There is little demand in them for the full menu of public services provided in larger communities. Plantations are similar to towns in that voters at the annual meeting are the legislative body. During the meeting, the assessors are elected to carry on the daily operation of government and function much as the selectmen in towns. Taxes are raised and appropriated and voters are registered. Plantations do not have the powers granted to municipalities under Home Rule, and do not have the authority to enact ordinances. The Land Use Planning Commission (LUPC) governs plantations.

¹ 'Land Area is Square Miles, 2020' U.S. Census QuickFacts
(https://data.census.gov/profile/Lincoln_County,_Maine?g=050XX00US23015)

² 2020 Decennial Census

Lincoln County has two (2) Unorganized Territories (UT) – Hibberts Gore and Lincoln County Islands. The most prominent of the Lincoln County Islands is Louds Island. The Land Use Planning Commission (LUPC) governs Unorganized Territories. Below is the full list of UTs in Lincoln County, and Hibbert's Gore and Louds Island are included in tables where applicable.

UNORGANIZED TERRITORIES (UTs) IN LINCOLN COUNTY³
Bar Island
Haddock Island
Hibberts Gore, Township of
Hungry Island
Indian Island
Jones Garden Island
Killick Stone Island
Louds Island
Marsh Island
Polins Ledges Island
Ross Island
Thief Island
Thrumcap Island
Webber Dry Ledge Island
Western Egg Rock Island
Wreck Island
Wreck Island Ledge

Population

The below Table on population per community in Lincoln County provides data from the 2020 Decennial Census⁴. In addition, the Table provides 2022 Observed Population, 2027 Projected Population, and 2032 Projected Population from the Maine State Economist⁵.

TOWN	2020 POPULATION	2022 OBSERVED POPULATION	2027 PROJECTED POPULATION	2032 PROJECTED POPULATION
Alna	710	737	732	722
Boothbay	3,003	3,118	3,117	3,096
Boothbay Harbor	2,027	2,080	2,033	1,970
Bremen	823	846	857	859
Bristol	2,834	2,941	2,970	2,972
Damariscotta	2,297	2,303	2,250	2,166
Dresden	1,725	1,783	1,797	1,793

³ Retrieved from FEMA Flood Insurance Study, study number 23015CV000A. Effective 07/16/2015.

⁴ <https://data.census.gov/all?q=lincoln+county+maine>

⁵ <https://www.maine.gov/dafs/economist/demographic-projections>

Edgecomb	1,188	1,215	1,184	1,145
Hibberts Gore UT	1	*	*	*
Jefferson	2,551	2,673	2,768	2,837
Louds Island: Lincoln County Islands UT	3	*	*	*
Monhegan Plantation	64	64	60	56
Newcastle	1,848	1,899	1,932	1,940
Nobleboro	1,791	1,861	1,913	1,946
Somerville	600	622	633	638
South Bristol	1,127	1,144	1,187	1,207
Southport	622	637	638	631
Waldoboro	5,154	5,287	5,253	5,171
Westport Island	719	742	750	752
Whitefield	2,408	2,475	2,506	2,506
Wiscasset	3,742	3,853	3,863	3,830

** Locations with fewer than five (5) people in all three (3) observation years have been removed from the final projections. Totals may not equal county totals.*

Changes in the 2026 Lincoln County Hazard Mitigation Plan Update

- The 2026 LC HMP includes a change in formatting, switching from landscape to portrait orientation and incorporating more photographs from past hazard events. It also incorporates data from other natural hazard planning initiatives that have occurred over the past five (5) years.
- “Pandemic” has been removed as a profiled natural hazard from the 2026 LC HMP Update as the COVID-19 Pandemic officially ended on May 5, 2023.
- Updates for each Plan Element will be summarized in the respective sections.



ELEMENT A: PLANNING PROCESS

PLAN CRITERIA

A1. Does the plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? *(Requirement 44 CFR §201.6(c)(1))*

- A1-a. Does the plan document how the plan was prepared, including the schedule or timeframe and activities that made up the plan's development, as well as who was involved?
- A1-b. Does the plan list the jurisdictions participating in the plan that seek approval, and describe how they participated in the planning process?

A2. Does the plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development as well as businesses, academia, and other private and non-profit interests to be involved in the planning process? *(Requirement 44 CFR §201.6(b)(2))*

- A2-a. Does the plan identify all stakeholders involved or given an opportunity to be involved in the planning process, and how each stakeholder was presented this opportunity?

A3. Does the plan document how the public was involved in the planning process during the drafting stage and prior to plan approval? *(Requirement 44 CFR §201.6(b)(1))*

- A3-a. Does the plan document how the public was given the opportunity to be involved in the planning process and how their feedback was included in the plan?

A4. Does the plan describe the review and incorporation of existing plans, studies, reports, and technical information? *(Requirement 44 CFR §201.6(b)(3))*

- A4-a. Does the plan document what existing plans, studies, reports, and technical information were reviewed for the development of the plan, as well as how they were incorporated into the document?

UPDATES TO THE 2026 LINCOLN COUNTY HAZARD MITIGATION PLAN FOR ELEMENT A

- The natural hazards survey was updated to include a needs assessment for communities to complete on hazard planning needs and project implementation.
- Additional language was added to highlight other planning efforts that occurred prior to the update of the 2026 Lincoln County Hazard Mitigation Plan, to ensure cross-collaboration and implementation of identified actions.
- Language edits and participant data updates were made to reflect the 2026 HMP update process.

ELEMENT A: PLANNING PROCESS

Planning Process Overview

A1: Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction?

A1-a. Does the plan document how the plan was prepared, including the schedule or time frame and activities that made up the plan's development, as well as who was involved?

A1-b. Does the plan list the jurisdiction's participating in the plan that seek approval, and describe how they participated in the planning process?

A3: Does the Plan document how the public was involved in the planning process during the drafting stage?

A3-a. Does the plan document how the public was given the opportunity to be involved in the planning process and how their feedback was included in the plan?

Throughout this Plan, the terms 'community' 'municipality', and 'jurisdiction' are used interchangeably. Each word is understood to include towns and plantations within Lincoln County.

The Lincoln County Hazard Mitigation Plan Update was a multi-jurisdictional collaborative effort. The Hazard Mitigation Planning Team sought participation from jurisdictions through surveys, meetings, emails, social media, and phone calls.

LINCOLN COUNTY PLANNING TEAM	
Emily Huber	Director, Lincoln County Emergency Management Agency
Emma McKearney	Deputy Director, Lincoln County Emergency Management Agency
Emily Rabbe	Executive Director, Lincoln County Regional Planning Commission
Laura Graziano	Community Resilience Planner, Lincoln County Regional Planning Commission
Curtis Brown	Land Use and Transportation Planner, Lincoln County Regional Planning Commission.

The Planning Team relied on hybrid meetings (in-person and virtual participation) and online surveys for input. Local EMA Directors; town managers and administrators; select boards; public works departments; water and sewer districts; Lincoln County Regional Planning Commission Board members, and other relevant municipal staff and officials were consulted to give feedback on countywide and town-specific actions to mitigate local hazards and the vulnerability of individuals and susceptibility of local areas to natural disasters. The opportunity to complete the survey was also provided to the general public through an announcement in the LCRPC e-newsletter. Municipal officials were asked to update mitigation projects from the 2021 Plan and outline new projects for the 2026 Plan Update.

Prior to submitting this Plan Update to FEMA, the Planning Team opened a 10-day public comment period. This public comment period was announced on October 1, 2025 through advertisements on the LC EMA website and social media pages; LCRPC's website and social media; and a press release in local newspapers. The draft HMP Update was also provided to stakeholders, including but not limited to the electric utility; special districts, including water and sewer districts; municipal officials; and Local EMA Directors. Any received comments were addressed prior to submission to FEMA.

Before undertaking the public and stakeholder engagement process, the Planning Team met and corresponded regularly to discuss the scope of the project; roles and responsibilities; and project timeline. The Planning Team provided expertise, data, and assistance in updating the Plan, along with soliciting outside participation of experts on specific questions.

The Planning Team also reviewed previous studies; municipal projects; State plans, including the 2023 State Hazard Mitigation Plan¹ and the Maine Won't Wait – 4 Year Climate Action Plan 2024 Update². They also incorporated other hazard planning initiatives into the Plan Update, including action items from the Lincoln County Social Resilience Project³, along with planning priorities identified when towns enrolled in the State Community Resilience Partnership⁴.

Steps within the Update Process

1. Preliminary Planning Meetings, multiple dates.

The Hazard Mitigation Planning Team met multiple times prior and during the Plan update for various durations and meeting outcomes. These meetings determined roles and responsibilities; timelines; hazard identification and prioritization; survey questions; agenda and meeting preparation; and overall points of clarification. Below are the Planning Team as well as others who were consulted on the Plan development. Meetings were held with multiple different configurations of attendees

¹ <https://www.maine.gov/mema/hazards/natural-hazard-mitigation>

² <https://www.maine.gov/climateplan/>

³ <https://seagrant.umaine.edu/focus-areas/communities-and-economies/the-social-resilience-project/lincoln-county-social-resilience-project/>

⁴ <https://www.maine.gov/future/climate/community-resilience-partnership>

PRELIMINARY PLANNING MEETINGS	
<i>Dates: Multiple</i>	
Emily Huber	Director, Lincoln County Emergency Management Agency
Emma McKearney	Deputy Director, Lincoln County Emergency Management Agency
Emily Rabbe	Executive Director, Lincoln County Regional Planning Commission
Laura Graziano	Community Resilience Planner, Lincoln County Regional Planning Commission
Curtis Brown	Land Use and Transportation Planner, Lincoln County Regional Planning Commission.
Christine Whelan	State Hazard Mitigation Officer, Maine Emergency Management Agency
Anne Fuchs	Director of Mitigation and Recovery, Maine Emergency Management Agency.
Carrie Kipfer	County Administrator, Lincoln County
Michelle Richardson	County Finance Director; Elected Treasurer, Lincoln County

2. Lincoln County EMA Director's Meetings, Open to the Public & Stakeholders (Dates provided below)

Regularly scheduled Local EMA Director's meetings were utilized to discuss the Hazard Mitigation Plan Update. Additionally, during the months when a Local EMA Director's meeting was not scheduled, workshops were added for the sole purpose of providing input and data to the Hazard Mitigation Plan Update. A summary of the meeting dates, times, and locations are provided below. A summary of meeting participants is also provided. Agendas and minutes from each meeting are provided in **Appendix A**.

Meeting 1: Local EMA Directors Meeting, March 20, 2025		
<i>Location & Time:</i> Lincoln County Communications Center, 34 Bath Road, Wiscasset, ME 04578 – 6:00PM EST.		
<i>Meeting Summary:</i> LC EMA and LCRPC provided an announcement on the Hazard Mitigation Plan Update that will be taking place over the next several months. EMA offered drop-in, workshop days on the off months of regularly scheduled Local EMA meetings to provide space and resources for officials and stakeholders.		
NAME	TOWN	TITLE
Planning Team		
Emily Huber	Lincoln County	Director, Lincoln County Emergency Management
Laura Graziano	Lincoln County	Community Resilience Planner, Lincoln County Regional Planning Commission
Participating Stakeholders, Public, and Emergency Management Personnel		
John Oakes	Lincoln County	CERT Team Leader
Patrick Voit	Central Maine Power	CMP Representative
Don Gleason	Dresden	Select Board Member
Alex Ciskowski	Jefferson	EMA
Tara Doe	Lincoln County	Director, Lincoln County Communications
Brendan Parker	Lincoln County	Deputy Director, Lincoln County Communications

Kevin Sutherland	Newcastle	EMA; Town Manager
Jon Amirault	Somerville	EMA
Mike Dostie	Somerville	Fire Chief
Kyle Santheson	Waldoboro	EMA
Julie Casson	Westport Island	EMA
Jason Kates	Westport Island	EMA
Steve O'Bryan	Damariscotta	EMA
Amanda Jacobs	Lincoln County	Lincoln Health
Kathleen Kenny	State of Maine	Red Cross
Donny Dumont	National Weather Service	NWS Warning Coordination Meteorologist

Meeting 2: Local EMA Directors Meeting, May 15, 2025

Location & Time: Lincoln County Communications Center, 34 Bath Road, Wiscasset, ME 04578 – 6:00PM, EST.

Meeting Summary: LCRPC presented on the HMP update, including the proposed timeline; roles/responsibilities for municipalities; and the purpose of the HMP update. The presentation also included a detailed summary of the natural hazards to be profiled and how the hazards were rated by the Planning Team.

NAME	TOWN	TITLE
Planning Team		
Emily Huber	Lincoln County	Director, Lincoln County Emergency Management
Emma McKearney	Lincoln County	Deputy Director, Lincoln County Emergency Management
Emily Rabbe	Lincoln County	Executive Director, Lincoln County Regional Planning Commission
Participating Stakeholders, Public, and Emergency Management Personnel		
John Oakes	Lincoln County	CERT Team Leader
Alex Ciskowski	Jefferson	EMA
Kevin Sutherland	Newcastle	EMA; Town Manager
Jon Amirault	Somerville	EMA
Mike Dostie	Somerville	Fire Chief
Kyle Santheson	Waldoboro	EMA
Jason Kates	Westport Island	EMA
Steve O'Bryan	Damariscotta	EMA
Bill Witzell	Edgecomb	EMA
Kathleen Kenny	State of Maine	Red Cross

Meeting 3: Local EMA Directors HMP Workshop, June 12, 2025

Location & Time: Lincoln County Communications Center, 34 Bath Road, Wiscasset, ME 04578 – 6:00PM, EST.

Workshop Summary: LC EMA and LCRPC Staff were on-hand to support local directors and other county stakeholders in completing the *Lincoln County Hazard Mitigation Plan Survey for Municipalities*.

NAME	TOWN	TITLE
Planning Team		
Emily Huber	Lincoln County	Director, Lincoln County Emergency Management
Emma McKearney	Lincoln County	Deputy Director, Lincoln County Emergency Management
Emily Rabbe	Lincoln County	Executive Director, Lincoln County Regional Planning Commission
Laura Graziano	Lincoln County	Community Resilience Planner, Lincoln County Regional Planning Commission
Participating Stakeholders, Public, and Emergency Management Personnel		
John Oakes	Lincoln County	CERT Team Leader
Alex Ciskowski	Jefferson	EMA
Jon Amirault	Somerville	EMA
Mike Dostie	Somerville	Fire Chief
Kyle Santheson	Waldoboro	EMA
Dionysi McGowan	South Bristol	EMA
Allen Spinney	South Bristol	Fire Chief
Don Gleason	Dresden	Select Board

Meeting 4: Local EMA Directors Meeting, July 17, 2025

Location & Time: Waldoboro Town Office, 1600 Atlantic Highway, Waldoboro, 04572 – 6:00PM EST.

Workshop Summary: LC EMA and LCRPC Staff provided an update on the progress of the HMP update, including response rate for the Survey. The Planning Team also presented the worksheets for the project list updates for jurisdictions, answering questions on how to update the lists from 2021 and add new projects for 2026.

NAME	TOWN	TITLE
Planning Team		
Emily Huber	Lincoln County	Director, Lincoln County Emergency Management
Emma McKearney	Lincoln County	Deputy Director, Lincoln County Emergency Management
Emily Rabbe	Lincoln County	Executive Director, Lincoln County Regional Planning Commission

Laura Graziano	Lincoln County	Community Resilience Planner, Lincoln County Regional Planning Commission
Curtis Brown	Lincoln County	Land Use and Transportation Planner, Lincoln County Regional Planning Commission
Participating Stakeholders, Public, and Emergency Management Personnel		
Kyle Santheson	Waldoboro	EMA
Alex Ciskowski	Jefferson	EMA
Steve O'Brian	Damariscotta	EMA
Mike Dostie	Somerville	Fire Chief
Lisa Jonnassen	Westport Island	Select Board
Bruce Johnston	Bremen	EMA
John Oakes	Boothbay, Boothbay Harbor, Southport, and Lincoln County	Boothbay Region EMA LC CERT Team Leader
Julie Casson	Westport Island	EMA
Jason Kates	Westport Island	EMA
Don Gleason	Dresden	EM Consultant

Meeting 5: Local EMA Directors HMP Workshop, August 21, 2025

Location & Time: Central Lincoln County YMCA, 525 Main Street, Damariscotta, Maine 04543 – 6:00PM EST.

Workshop Summary: LC EMA and LCRPC Staff provided an opportunity for municipalities and special districts to complete their project lists and ask questions.

NAME	TOWN	TITLE
Planning Team		
Emily Huber	Lincoln County	Director, Lincoln County Emergency Management
Emma McKearney	Lincoln County	Deputy Director, Lincoln County Emergency Management
Laura Graziao	Lincoln County	Community Resilience Planner, Lincoln County Regional Planning Commission
Participating Stakeholders, Public, and Emergency Management Personnel		
Jason Kates	Westport Island	EMA
Julie Casson	Westport Island	EMA
Alex Cikowski	Jeffeson	EMA
Kyle Santheson	Waldoboro	EMA
Steve O'Bryan	Damariscotta	EMA
Don Gleason	Dresden	EM Consultant
Coreysha Stone	Alna	Select Board

Meeting 6: Local EMA Directors Meeting, September 18, 2025

Location & Time: Bristol Fire and Rescue, 2561 Bristol Road, New Harbor, Maine 04541 – 6:00PM EST.

Workshop Summary: LC EMA and LCRPC Staff shared an update on the draft HMP; timeframe for public comment period and submission; and an overview of the Plan contents. The Planning Team requested final project lists to be submitted, along with any natural hazard photos to incorporate into the final draft of the plan.

NAME	TOWN	TITLE
Planning Team		
Emma McKearney	Lincoln County	Deputy Director, Lincoln County Emergency Management
Emily Rabbe	Lincoln County	Executive Director, Lincoln County Regional Planning Commission
Laura Graziano	Lincoln County	Community Resilience Planner, Lincoln County Regional Planning Commission
Participating Stakeholders, Public, and Emergency Management Personnel		
Dionysi McGowan	South Bristol	EMA
Kevin Sutherland	Newcastle	Town Manager, EMA
Scott Sutter, Jr.	Bristol	EMA, Fire Chief
John Oakes	Boothbay, Boothbay Harbor, Southport	EMA
Kyle Santheson	Waldoboro	EMA
Jason Kates	Westport Island	EMA
Julie Casson	Westport Island	EMA

3. Lincoln County Hazard Mitigation Plan Survey for Municipalities

In June of 2025, the Planning Team distributed the Lincoln County Hazard Mitigation Plan Survey to local EMA directors, municipal officials, select boards, municipal staff, LCRPC Board members, and stakeholders. LCRPC also shared a link to the survey in their monthly newsletter to provide the opportunity for the public to complete the survey (A copy of the announcement is enclosed in **Appendix C**).

The purpose of the survey was to obtain information on areas at both the county and local level that are susceptible to natural hazards or other concerns they might have in their community; a needs assessment to identify natural hazards planning needs and project implementation; and high-level feedback on possible mitigation opportunities the County or municipality can undertake. The survey results are summarized in **Element B: Risk Assessment** and complete copies of the survey responses are enclosed in **Appendix B**.

4. Municipal Mitigation Actions Project Lists

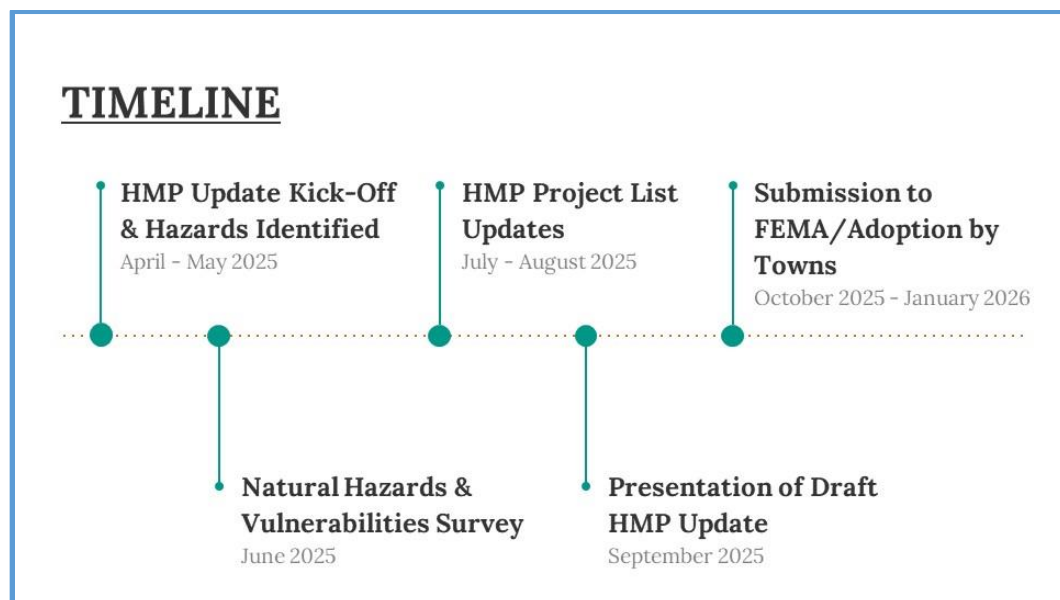
In July 2025, the Planning Team distributed worksheets to each municipality and Local EMA Director, which included the infrastructure projects for each town from the 2021 HMP. Towns were asked to provide updates on the status of those lists, as well as list new projects and actions for the 2026 Update. An example of the project list worksheet is enclosed in **Appendix B**. The completed project lists for each jurisdiction are provided in **Element C: Mitigation Strategy**.

5. Public Comment Period

The LC HMP Planning Team announced on October 1, 2025 that a public comment period was opening. The period was for ten (10) days through October 10, 2025. Copies of the public notice announcements are enclosed in **Appendix C**.

X responses were received during the public comment period and relevant information to the LC HMP was incorporated into Element **X**.

Timeline of Plan Update



Summary of Local Participation

Below is a summary of each municipality, special district, and/or stakeholder participation throughout the Hazard Mitigation Plan Update process. Participation includes meeting attendance; online survey; submitting project lists; or other correspondence such as one-on-one interviews, emails, or phone calls.

SUMMARY OF PARTICIPATION OF TOWNS IN PLANNING PROCESS					
Municipality	EMA Meetings	Survey	Project List Updates	Public Comment Period	Other Correspondence
Alna	X	X	X		
Boothbay	X	X	X		X
Boothbay Harbor	X	X	X		X
Boothbay Harbor Sewer District			X		
Bremen	X	X	X		
Bristol	X	X	X		X
Damariscotta	X	X	X		X
Dresden	X	X	X		
Edgecomb	X		X		X
Jefferson	X	X	X		
Monhegan Plantation		X	X		X
Newcastle	X	X	X		X
Nobleboro		X	X		X
Somerville	X	X	X		X
South Bristol	X	X	X		X
Southport	X	X	X		X
Waldoboro	X	X	X		X

Westport Island	X	X	X		X
Whitefield		X	X		X
Wiscasset		X	X		
Wiscasset Sewer District		X	X		

COMPARISON OF PAST AND PRESENT PARTICIPATION					
Jurisdiction	2005 HMP Update	2011 HMP Update	2016 HMP Update	2021 HMP Update	2026 HMP Update
Lincoln County (and UT)	X	X	X	X	X
Alna, Town of	X	X	X	X	X
Boothbay, Town of	X	X	X	X	X
Boothbay Harbor, Town of	X	X	X	X	X
Bremen, Town of	X	X	X	X	X
Bristol, Town of	X	X	X	X	X
Damariscotta, Town of	X	X	X	X	X
Dresden, Town of	X	X	X	X	X
Edgecomb, Town of	X	X	X	X	X
Jefferson, Town of	X	X	X	X	X
Monhegan Plantation	X	X	X	X	X
Newcastle, Town of	X	X	X	X	X
Nobleboro, Town of	X	X	X	X	X
Somerville, Town of	X	X	X	X	X
South Bristol, Town of	X	X	X	X	X
Southport, Town of	X	X	X	X	X
Waldoboro, Town of	X	X	X	X	X
Westport Island, Town of	X	X	X	X	X
Whitefield, Town of	X	X	X	X	X
Wiscasset, Town of	X	X	X	X	X

Stakeholder Engagement, Including Regional and State Agencies

A2: Does the plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia, and other private and non-profit interests to be involved in the planning process?

- *A2-a. Does the plan identify all stakeholders involved or given an opportunity to be involved in the planning process, and how each stakeholder was presented with this opportunity?*

Since this is a multijurisdictional plan all meetings were with neighboring communities, either adjacent to each other or within the County. Opportunities for local and regional agencies to be involved in the planning process were provided in the form of a publicly available online survey; the Lincoln County EMA website/social media; emails; phone calls; and in-person meetings. Many of the local officials involved in the 2026 Plan Update work in various agencies, businesses, academia, and nonprofit organizations and were asked to provide suggestions on other communities and agencies with relevant input. Communication with state agencies provided additional perspectives on the Plan Update.

Federal agencies and nongovernmental organizations involved in the planning risk assessment and analysis process included:

- **NOAA – Sea Level Rise Viewer products⁵** were used to inform the Risk Assessment.
- **The National Weather Service – Gray Forecasting Office** reviewed the hazard profiles.
- **The Nature Conservancy – Coastal Risk Explorer products⁶** were used to inform the Risk Assessment.
- **FEMA Local Mitigation Planning Policy Guide** (FP-206-21-0002, Effective April 11, 2025) was utilized in the writing and data analysis of this Update.
- **USDA Agricultural Census** – agricultural commodity sales⁷ were used to inform drought loss models in the Risk Assessment.

State and regional resources used in the planning risk assessment and analysis process included:

- **Maine Emergency Management** staff provided needed planning assistance, information and data, and clarification on process and hazard mitigation plan needs.
- **University of Maine and the Maine Climate Council Scientific and Technical Subcommittee** – Provided data to inform the risk assessment.
- **The Maine Geological Survey (MGS)** – provided information on sea level rise impacts in Lincoln County. MGS also proved useful in assessing coastal bluffs and landslides.
- **Maine Forest Service** – Regional Forest Ranger provided information for the Wildfire hazard profile.
- **Maine Drought Task Force** – Provided data and consult for the Drought hazard profile.

⁵ <https://coast.noaa.gov/slr/#/layer/slr>

⁶ <https://www.maps.tnc.org/maine/coastalriskexplorer/>

⁷ https://www.nass.usda.gov/Publications/AgCensus/2022/Full_Report/Census_by_State/Maine/index.php

- **Maine Office of Community Affairs' National Flood Insurance Program Coordinator** – Provided repetitive loss property information, guidance on best-available Flood Insurance Rate Map data, and further data and guidance.
- **Office of the State Economist** – Provided needed data and guidance on data collection and future state, county, and municipal population projections to assess potential development trends.
- **Land Use Planning Commission Chief Planner** – provided guidance on authority and permit requirements for floodplain ordinances in the unorganized territories.
- **Maine Infrastructure Rebuilding and Resilience Commission (IRRC)** – Relied on findings and recommendations from the IRRC's 2025 report on statewide infrastructure resilience.

Local and county resources involved in the risk assessment and analysis process included (in addition to participation reported in Elements A1 and A3, above):

- **Lincoln County EMA** – provided data supporting estimation of potential damages for each hazard and photographs and context for storm profiles.
- **Lincoln County Sea Level Rise Study (2015)** – informed flooding and storm hazard profiles.
- **Lincoln County Social Resilience Project Final Report (2025)** – provided data on sector impacts, including to residents, businesses, emergency services, conservation groups, schools, etc.
- **Lincoln County EMA and Local EMA Directors** – consulted for their input on areas prone to each hazard profiled and possible mitigation actions to be taken at both the county and local level.
- **Town select boards** – attended County EMA meetings on the plan update and assigned other town officials to participate in the plan development.
- **Local fire chiefs and their departments, code enforcement officers, town managers, and town EMA directors** – provided the necessary information on needed mitigation actions such as costs, timelines, and priority; updates on previously identified projects; and local knowledge on areas susceptible to natural disasters.
- **The Lincoln County Emergency Management Agency** – provided direct support to the planning process by convening countywide meetings, promoting the survey, and gathering information from local officials.
- **The Lincoln County Regional Planning Commission** – facilitated the 2026 Plan Update process by creating survey and worksheets; gathering and analyzing risk assessment data; documenting the process; and putting together the final plan components.

Each of the resources, reports, and data are referenced throughout this document and cited where applicable. See **Element C1** of this document for more details on existing Authorities, Policies, Programs, and Resources.

Data Incorporation

A4. Does the plan describe the review and incorporation of existing plans, studies, reports, and technical information?

- A4-a. Does the plan document what existing plans, studies, reports, and technical information were reviewed for the development of the plan, as well as how they were incorporated into the document?*

This Plan is the fifth (5th) iteration of the LC HMP and incorporates a broad array of new resources, current discussions, and previous Plan Updates to profile natural hazards; identify associated community risks; address local capabilities; and highlight mitigation actions to reduce observed long-term risks. The review and incorporation process was based on objectives for the current Plan Update to utilize best-available information to meet Plan objectives and provide a comprehensive assessment of hazards; vulnerabilities; capabilities; mitigation actions; and implementation strategies at local, county, state, and federal scales. State and federal authoritative data and reports are used throughout the Plan to support these objectives. Specific reports, plans, studies, guidance, and technical information can be found in **Element A2**, above, as well as referenced in **Element B: Risk Assessment** and throughout the overall Plan.

ELEMENT B: RISK ASSESSMENT

PLAN CRITERIA

B1. Does the plan include a description of the type, location, and extent of all natural hazards that can affect the jurisdiction? Does the plan also include information on previous occurrences of hazard events and on the probability of future hazard events? (Requirement 44 CFR §201.6(c)(2)(i))

- B1-a. Does the plan describe all natural hazards that can affect the jurisdiction(s) in the planning area, and does it provide the rationale if omitting any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area?
- B1-b. Does the plan include information on the location of each identified hazard?
- B1-c. Does the plan describe the extent for each identified hazard?
- B1-d. Does the plan include the history of previous hazard events for each identified hazard?
- B1-e. Does the plan include the probability of future events for each identified hazard, including the type, location, and range of anticipated intensities?
- B1-f. For participating jurisdictions in the multi-jurisdictional plan, does the plan describe any hazards that are unique to and/or vary from those affecting the overall plan area?

B2. Does the plan include a summary of the jurisdiction's vulnerability and the impacts on the community from the identified hazards? Does the summary address NFIP-insured structures that have been repetitively damaged by floods? (Requirement 44 CFR §201.6(c)(2)(i))

- B2-a. Does the plan provide an overall summary of each jurisdiction's vulnerability to the identified hazards?
- B2-b. For each participating jurisdiction, does the plan describe the potential impacts of each of the identified hazards on each participating jurisdiction?
- B2-c. Does the plan address NFIP-insured structures within each jurisdiction that have been repetitively damaged by floods?

UPDATES TO THE 2026 LINCOLN COUNTY HAZARD MITIGATION PLAN FOR ELEMENT B

- The Risk Assessment is an update to the assessment performed in 2021.
- A discussion on the County's climate data has been updated.
- Historical storm records have been updated to include occurrences between 2021 and 2025.
- Municipal survey responses from 2025 have been imported.
- Consumer Price Index (CPI) calculations have been updated.
- Current and future vulnerability assessment data has been updated.

ELEMENT B: RISK ASSESSMENT

INTRODUCTION

The Mitigation Planning Regulation (44 CFR §201.6(c)(2)(ii) and (d)(3)) requires a consideration of the probability of future hazard events, and requires plan updates to reflect changes in development.

Lincoln County's risk assessment provides sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards. This Plan includes detailed descriptions of all the potential hazards that could affect the jurisdiction along with an analysis of the jurisdiction's vulnerability to those identified hazards. Specific information about the numbers and types of structures, potential dollar losses, and an overall description of the land use trends in the jurisdiction are included in this analysis. Inasmuch as this is a multijurisdictional plan, the risks that affect only certain regions were assessed separately in the context of the affected region.

Climate

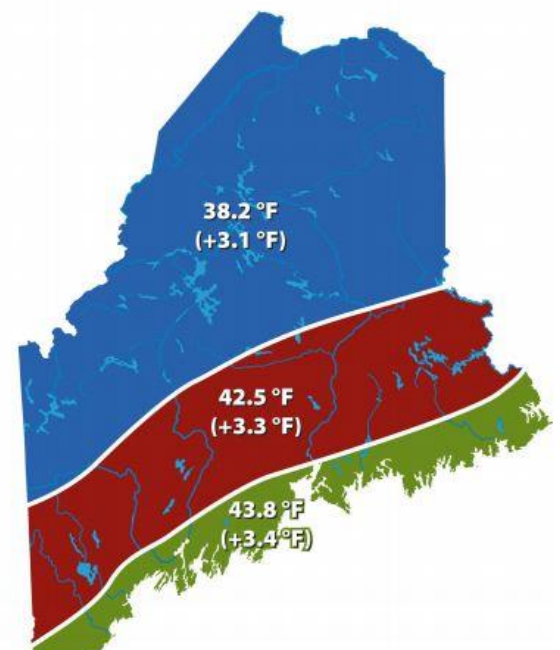
No risk assessment of Lincoln County's flood and related hazards would be complete without first considering its climate and geography. Factors such as seasonal temperatures, annual precipitation, prevailing wind directions and geographical features can all affect both the occurrence and severity of flooding and related hazards.

Lincoln County is located wholly within the Coastal Division of Maine's three climatic divisions. The Coastal Division encompasses a 20-30 mile band along the coast of 4,992 square miles (15%) of the State. This division is most affected by the ocean, and has minimal climatic impact from any topographic controls inasmuch as the County has minimal elevation change.

Temperature

Average annual temperature for the Coastal Division is 43.8 degrees Fahrenheit. The temperature average for Lincoln County in July is 69.2 degrees Fahrenheit and 16.5 degrees Fahrenheit in January.

Map: Annual Temperatures by Climate Division



Source: Maine's Climate Future – 2020 Update, UMaine

Precipitation

Lincoln County's average amount of precipitation, based on long-term records dating back to 1895, is 45.1 inches of precipitation annually. This includes the conversion of all snowfall to a water-equivalent. Average monthly precipitation is between three and four inches, with October being the wettest month, and February being the driest month. Coastal storms provide the abundant winter precipitation, whereas the cool ocean water and sea breeze help to limit convective activity during the summer, thus inhibiting abundant thunderstorm activity responsible for so much of the summer precipitation in the rest of the central and eastern parts of the country.

Prevailing Winds

Prevailing wind direction varies by season and location. Local influences such as orientation of a valley may also play a key role in dictating prevailing wind direction at any one location. Most of the County is under northwest to west-northwest winds throughout much of the year, particularly during the winter months. Southwest and southerly winds prevail in the summer months due to the frequent formation of a sea breeze, producing cool, refreshing temperatures during the summer along the coast. The formation of a sea breeze particularly occurs when regional winds are weak during the summer months.

The National Weather Service (NWS) Gray Forecasting Office, as part of their review of the 2021 Plan Update, indicated that fall Nor'easter wind storms *"seem' to be bigger issues than in the past due to multiple factors, but I like to highlight that the threat of these to the coastal counties is very large". "Severe wind storms are a much higher threat [than tornadoes] to infrastructure and the community as a whole on a county wide scale."*

Climate Variation

This section of **Element B: Risk Assessment** provides an overview on how climate has changed over time and how such change is influencing the occurrence and severity of natural hazards in Lincoln County.

As described in UMaine's "Maine Climate Future – 2020 Update" ¹report:

"While in the past we may have underestimated the rate and severity of climate change, today there is little doubt of the price of unchecked climate change, with the National Climate Assessment estimating a potential cost equal to nearly 10 percent of the U.S. gross domestic product by the end of the century (Berwyn 2018). Since 1980, the U.S. has sustained 241 weather and climate disasters that exceeded \$1 billion in damages,

¹ Fernandez, I., S. Birkel, C. Schmitt, J. Simonson, B. Lyon, A. Pershing, E. Stancioff, G. Jacobson, and P. Mayewski (2020). *Maine's Climate Future 2020 Update*. <https://climatechange.umaine.edu/wp-content/uploads/sites/439/2020/02/Maines-Climate-Future-2020-Update-3.pdf>

with a total cost for these events of \$1.6 trillion (Smith 2019). In 2018 alone, there were 14 of these climate disasters with 247 deaths and costs exceeding \$1 billion in the U.S. These costs do not include the chronic consequences of a changing climate that we experience every day.”

Additionally, the report notes:

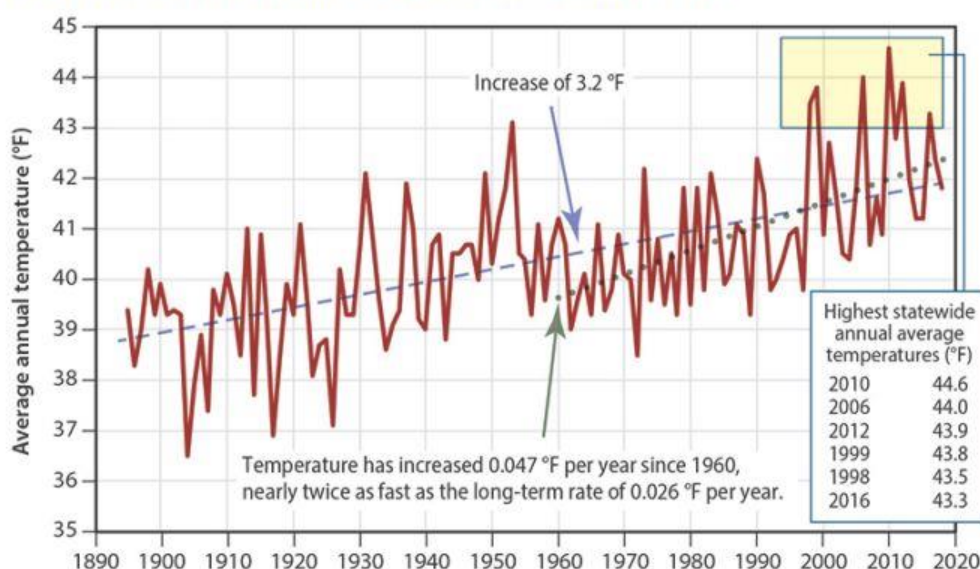
“In Maine, we are acutely aware of the importance of our ocean, forests, fields, wetlands, lakes, and rivers to our way of life, our livelihoods, and our economy. All of these characteristics of Maine are shaped, in part, by our climate. We have always dealt with the challenges of weather and the joys of four seasons, but what we are experiencing now is both accelerating change in extremes and long-term averages of weather that reflect fundamental changes in the boundary conditions, or the historical range of conditions, of our climate.”

Temperature Changes

Excerpts from the report “Maine’s Climate Future – 2020 Update”, prepared by the University of Maine, includes the following:

*“Temperatures are increasing statewide. Average annual temperature has increased 3.2 degrees Fahrenheit in the last 124 years, and the rate of warming has increased most notably since 1960. The six warmest years on record have occurred since 1998. Indeed, the Northeast is warming faster than any other region in the U.S., and is projected to warm 5.4 °F (3 °C) when the rest of the world reaches 3.6 °F (2 °C). The whole state has warmed, and **temperature increases have been greatest in the coastal division** (emphasis added)”.*

Chart: Maine Average Annual Air Temperature, 1895-2018



Source: Maine’s Climate Future – 2020 Update; UMaine

Precipitation Changes

As noted in the “Scientific Assessment of Climate Change and Its Effects in Maine, 2024 Update²” prepared by the Maine Climate Council’s Scientific and Technical Subcommittee, Maine’s climate is getting wetter, with more high-intensity precipitation.

“Precipitation (rain and snow) variability is increasing due to intensification of the hydrologic cycle, meaning that water cycles faster through the atmosphere, land, the oceans, freshwater, and glacial ice in response to warming. Maine now receives 1-2 additional days per year with 2+ inches of precipitation, and 2-3 more days per year with 1 inch of precipitation. Storm events with high one-hour intensities have prompted adaptive actions”.

Additionally, the “Maine’s Climate Future – 2020 Update” states:

“Average annual precipitation has increased 15 percent (5.8 inches) since 1895, and the increase has come in the form of more rain, and less snow. Since 1895, depth of annual snowfall has decreased 20 percent (2.3 inches). As with temperature, the rate of increase has accelerated in recent decades”.

“Coastal locations are seeing even greater increases in storm precipitation intensity. Other studies have found increases in heavy precipitation across the northeastern U.S. in the last two decades, mostly associated with September-October tropical cyclones (hurricanes) and a warming Atlantic Ocean.”

“Increased precipitation means increased volume of runoff to local streams, rivers, and ultimately the Gulf of Maine. These higher flows and floods can impact drinking water and damage roads, bridges, and properties. Storms often include strong winds, such as the October 2017 event that was the worst wind storm in Maine’s history. More than half a million people lost electricity due to damaged power lines that cost Central Maine Power Company \$69 million.”

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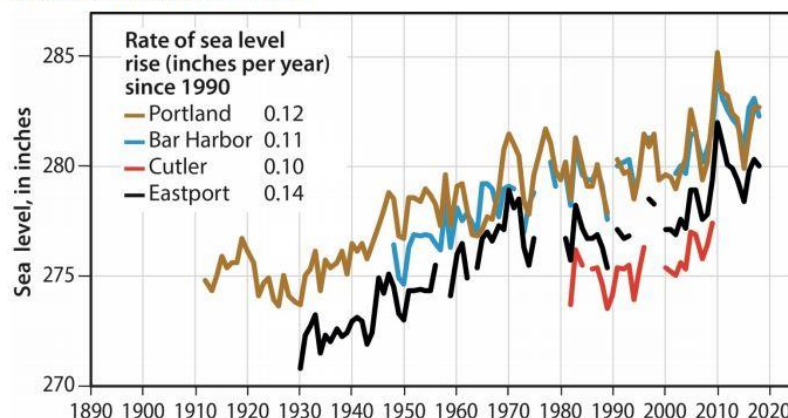
² <https://www.maine.gov/future/climate/reports>

Sea Level Rise

According to the State of Maine's 2023 Hazard Mitigation Plan³, long-term sea level trends in Maine indicate about half of the observed sea level rise has occurred since 1990, and rates are generally at or slightly above global long-term and short-term averages.

Per the "Maine's Climate Future – 2020 Update"

Graph: Sea Level Rise in Maine



Annual mean sea level from four long-term observation sites along the Maine coast. Data from the Permanent Service for Mean Sea Level (Holgate et al. 2013, PSMSL 2019).

"The overall average rate for the full length of the record to the present was 0.07 inches per year, but since 1990 the rate has accelerated to 0.12 inches per year".

"Higher sea levels mean that regular high tides are also higher, causing more frequent 'sunny day' or 'nuisance' flooding, when coastal water levels reach or exceed two feet above the long-term average daily high tide".

The result of the gradual increase in sea level has been increased flooding, erosion of coastal bluffs, and landslides. The Maine Climate Council in 2020 announced the following "Commit to Manage" and "Prepare to Manage" sea level rise (in feet) scenarios for 2030 through 2100:

Planning Scenario	"Commit to Manage"	"Prepare to Manage"
<i>Year</i>	<i>Intermediate Scenario</i>	<i>High Scenario</i>
2030	0.8	1.4
2050	1.5	3.0
2070	2.4	5.0
2100	3.9	8.8

The 2024 Update of the Maine Climate Council's Scientific and Technical Subcommittee's Scientific Assessment:

"Maine's 'commit to manage' sea level rise targets...remain unchanged from the 2020 STS report. Maine's 'commit to manage' sea level rise scenario remains within the statistically likely range of the equivalent sea level rise scenario in updated projections.

The timing of the 'prepare to manage' targets...should be shifted to two decades later. Updated projections indicate that the timeframe of Maine's 'prepare to manage'

³ <https://www.maine.gov/mema/hazards/natural-hazard-mitigation>

sea level rise scenario' should be shifted two decades later, to 3 feet by 2070 and 8.8 feet in the 2120s.

Due to a possible large increase in the rate of sea level rise at the end of this century, Maine needs to extend planning horizons beyond 2100. Sea level is currently rising about 1.2 inches per decade in Maine. In 2100, this rate would increase to 8.4 inches per decade under the Intermediate (RCP 4.5) scenario and 1.2 feet per decade under the High (RCP 8.5) scenario. This possible order-of-magnitude increase in the rate of sea level rise by the end of the 21st century may cause physical impacts that outpace planning and adaptation efforts, highlighting the need for planning beyond 2100. Beyond 2050, when the different carbon emissions scenarios begin to diverge, the major driver of uncertainty in sea level rise projects is continental ice sheet melting, which in turn depends on emissions."

To illustrate the Maine Climate Council's sea level rise scenarios, which were adopted by the State of Maine in 2021, the Planning Team utilized the National Oceanic and Atmospheric Administration's (NOAA) Sea Level Rise Viewer⁴.

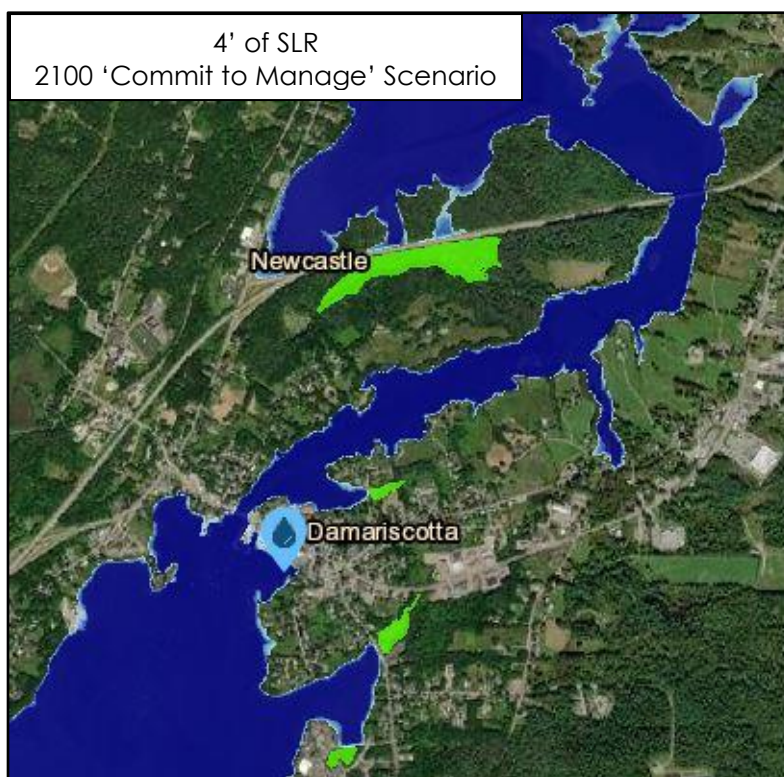
On the next two (2) pages is a scenario of the Twin Villages – Damariscotta and Newcastle – and how they will be impacted due to a sea level rise of four (4) feet (i.e., the 2100 'Commit to Manage' Scenario) and eight (8) feet (i.e., the 2100 'Prepare to Manage' Scenario). The areas in green are low-lying areas and the areas in shades of blue indicate water depths.

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⁴ National Oceanic and Atmospheric Administration (08/17/2020). Sea Level Rise Viewer v. 3.0.0. <https://coast.noaa.gov/slr/#/layer/slr/7/-7740338.988884284/5471506.417406769/14/satellite/179/0.8/2050/interHigh/midAccretion>. Accessed 08/30/2021.



Map showing current Mean Higher High Water levels of the Twin Villages – Damariscotta and Newcastle
Source: NOAA Sea Level Rise Viewer



Map showing the impact of 4' of SLR on the Twin Villages – Damariscotta and Newcastle; Source: NOAA Sea Level Rise Viewer

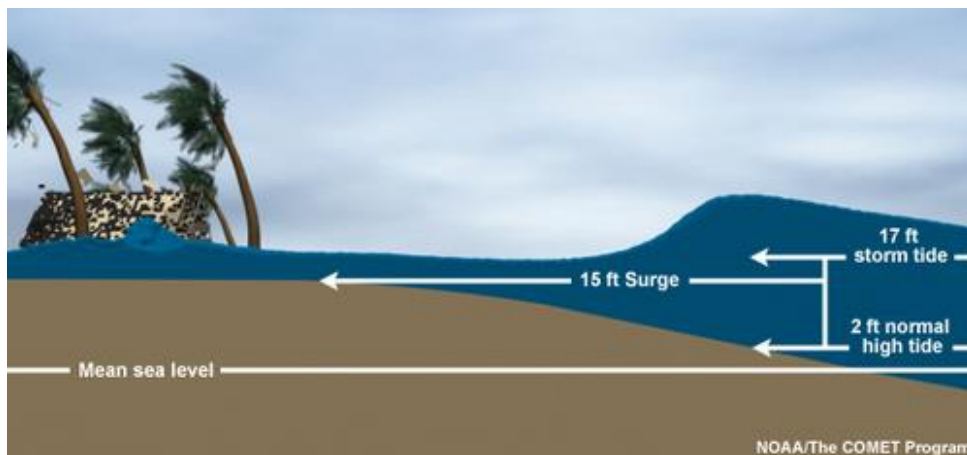


Map showing the impact of 8' of SLR on the Twin Villages – Damariscotta and Newcastle; Source: NOAA Sea Level Rise Viewer

Storm Surge

One of the consequences of sea level rise is the damage that can occur from storm surges. Storm surge is simply water that is pushed toward the shore by the force of the winds swirling around the storm as well as low barometric pressure. This advancing surge combines with the normal tides to create the storm tide. In addition, wind driven waves are superimposed on the storm tide. This rise in water level can cause severe flooding in coastal areas, particularly when the storm tide coincides with the normal high tides. The following illustration shows how storm surge can increase flooding risk.

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Along the Maine Coast, a sea level rise of one (1) foot means more homes, businesses, public infrastructure (such as roads), and entire communities could be subject to more devastating coastal floods on a more frequent basis.

Lincoln County Sea Level Rise – Coastal Hazard Study

The Lincoln County Sea Level Rise – Coastal Hazard Study⁵ was conducted jointly by the Lincoln County Regional Planning Commission (LCRPC) and the Maine Geological Survey (MGS), with support from the Maine Coastal Program. The purpose of the study was to determine the potential impacts of increasing sea level on the County’s 450 miles of tidal shoreline. The study included 10 sea level rise scenarios including the impacts of 0.3 m (1-foot), 0.6 m (2-foot), 1 m (3.3-foot) and 1.8 (6-foot) increases in sea level on the highest annual tide (HAT) as well as the “Storm of Record”, which for Lincoln County was the February 1978 storm, which resulted in the highest observed Stillwater elevations along the Maine coastline. The storm combined an approximate 3.5 feet of storm surge with astronomically high tides.

More recently, the Nature Conservancy in Maine has created the Coastal Risk Explorer⁶, developed in coordination with Bowdoin College, the Maine Geological Survey, and Blue Sky Planning Solutions. The Explorer uses projected sea level rise scenarios to understand which locations would be cut off from emergency medical services due to road flooding and incorporates an analysis indicating how vulnerable members of a community are to the challenges created by sea level rise based on demographic factors (socioeconomic status, household ages and disabilities, housing, transportation access, etc.).

Per the Nature Conservancy: “*The Coastal Risk Explorer allows communities to explore factors that would make it difficult for certain populations to evacuate or relocate when faced with*

⁵ Lincoln County Regional Planning Commission, Lincoln County Commissioners, Maine Geological Survey, and Maine Coastal Program (2015). *Lincoln County Sea Level Rise Flood Study (Updated)*. <https://www.lcrpc.org/coastal-projects-planning/lincoln-county-sea-level-rise-flood-study-updated>

⁶ The Nature Conservancy in Maine, Bowdoin College, Maine Geological Survey, and Blue Sky Planning Solutions (2019). *Coastal Risk Explorer*. <https://maps.coastalresilience.org/maine/>

flooding events and other emergencies. Planners can use this information to strategically upgrade culverts and locate emergency medical services based on where their most vulnerable populations are located, reducing the likelihood that they will be inaccessible during a flooding event”.

The Risk Explorer can be used as a complementary data source to the Sea Level Rise Flood Study prepared by the Lincoln County Regional Planning Commission (LCRPC) in 2013 and updated in 2015.

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NATURAL HAZARDS ASSESSMENT

B1. Does the plan include a description of the type, location, and extent of all natural hazards that can affect the jurisdiction? Does the plan also include information on previous occurrences of hazard events and on the probability of future hazard events?

- *B1-a. Does the plan describe all natural hazards that can affect the jurisdiction(s) in the planning area, and does it provide the rationale if omitting any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area?*
- *B1-b. Does the plan include information on the location of each identified hazard?*
- *B1-c. Does the plan describe the extent for each identified hazard?*
- *B1-d. Does the plan include the history of previous hazard events for each identified hazard?*
- *B1-e. Does the plan include the probability of future events for each identified hazard, including the type, location and range of anticipated intensities?*
- *B1-f. For participating jurisdictions in the multijurisdictional plan, does the plan describe any hazards that are unique to and/or vary from those affecting the overall plan area?*

This Section of **Element B: Risk Assessment** provides information on the natural hazards affecting Lincoln County; how these hazards were determined and assessed; history of past events and damages; probability of future events; and information on the location and extent of each hazard.

Description of All Natural Hazards Potentially Affecting Lincoln County

The Lincoln County Hazard Mitigation Planning Team identified several natural hazards that are addressed in this Plan Update. The Lincoln County Emergency Management Agency and the Lincoln County Regional Planning Commission identified these hazards through a process that utilized input from the Hazard Mitigation Planning Team; stakeholders; municipal officials and Local EMA Directors; researching past disaster declarations in Lincoln County; reviewing current maps; and a risk assessment completed.

The following table identifies the natural hazards to be profiled as well as the hazards that were eliminated from further consideration in the Plan, due to a lack of historical evidence, lack of overall countywide severity or a low likelihood for the event to occur.

SUMMARY OF NATURAL HAZARDS POTENTIALLY AFFECTING LINCOLN COUNTY		
Natural Hazard	Determination of Applicability to Lincoln County	Comment
Flooding	<ul style="list-style-type: none"> -Review of FIRM Maps -Review of sea level rise projections -Input from stakeholders -Input from general public -Review of past disaster declarations -Identification of repetitive losses -Risk Assessment – State Plan 2023 	Associated with the effects of spring runoff, coastal storms, and sea level rise. Several repetitive loss properties and roadway are located in Lincoln County. The County contains three (3) minor rivers and a number of streams and lakes.
Severe Winter Storms	<ul style="list-style-type: none"> -Review of past disaster declarations -Input from stakeholders 	Lincoln County is frequently hit with blizzards and nor'easter storms. Is

	-Input from the general public -Risk assessment -Review of the State Plan 2023	coastal communities are often subject to ice storms.
Severe Summer Storms	-Review of State Plan 2023 -Review of County Plans -Review of past County damages -Discussion of changes in risk	In the past decade, the intensity of high wind and rain events appears to be increasing in Lincoln County.
Wildfire	-Maine Forest Service records -Input from stakeholders -Input from the general public -Risk assessment -Review of State Plan 2023	Much of the County is covered with forests. Wildfires have been numerous, though small, in the past.
Drought	-MEMA Drought Task Force -US Drought Monitor -Input from stakeholders -Input from general public -Risk assessment	The State of Maine and Lincoln County have experienced more frequent drought conditions in recent years, impacting agriculture production and residential water supply.

Although the hazards described below are not profiled in the 2026 Lincoln County Hazard Mitigation Plan Update, the County does not certify that any of these events will not occur or could not occur and cause impactful damage. It was decided by the Planning Team to keep the Plan simple by only profiling the top five (5) natural hazards.

HAZARDS NOT PROFILED IN THIS PLAN		
Natural Hazard	Determination of Applicability to Lincoln County	Comment
Avalanche	-Review of USGS maps	There are no mountain in Lincoln County that hold large amounts of snow, which could create avalanches.
Blight Infestation	-Review of State Entomological Office historical records	Though Lincoln County is heavily dependent on its agricultural production, to include forestry, farming, and fishing, there are no historical records of major damage to these products that have caused serious economic conditions.
Erosion	-Review of Maine DEP records -Review of NRCS information	Lincoln County is undergoing development pressure along the coast. This could exacerbate erosion along local roads. See flooding section.
Dam Failure	-Review of Historical Records -Risk Assessment under the Flooding Profile	There have been no dam failures in the history of the County that have caused major flooding or damages, but two small dams did fail – see Flood section of profiled hazards.
Earthquake (>5.0 magnitude)	-Review of Maine Geological Survey records	Although earthquakes are common in Maine, no significant damaging movement has occurred in 20,000 years in Lincoln County.
Epidemic	-Review of Maine Dept. of Human Service Records	With the exception of the COVID-19 Pandemic there have been no major outbreaks from disease that have caused serious harm in Lincoln County.

Hurricanes	-Review of past disaster declarations -Risk Assessment in the Summer Storms Hazard Profile	The County is hit about every decade with a Category 1 hurricane. The primary damage is caused by high winds and flooding and these effects are discussed under the severe summer storm hazard profile.
Landslide	-Review of Maine Geological Survey records and inland landslide maps	Landslides are not common in Lincoln County. The inland land slide maps show only three inland landslides.
Pandemic	-Center for Disease Control (CDC)	While profiled in the 2021 HMP Update due to the COVID-19 Pandemic, it was decided by the Planning Team that this hazard did not need to be featured as the Pandemic officially ended in May 2023.
Subsidence	-Review of Maine Geological Survey records	There have been no known cases of subsidence in Lincoln County.
Tornado and Severe Wind Storms	-Review of NWS records	On average, 1-2 F0-F1 tornados occur in the State of Maine each year, yet there has been no loss of life or major damages in many years in Lincoln County. Wind storms often occur during severe winter and summer storms and the impacts from wind events are described under these hazards in the Plan.

Rating of Natural Hazards

The following table rates the natural hazards to be profiled. Be advised, the hazard ratings have not changed substantially in the last five years, therefore the ratings from the 2016 Plan continue to be used. Pandemic and Drought have not been rated by the Planning Team inasmuch as both hazards are relatively recent changes and did not allow time to go through the formal rating process, though they pose an imminent threat to the County and its jurisdictions.

Key to Rating

Severity of Hazard

3	Severe	Multiple deaths, mass casualties, or millions of dollars in damages
2.5	High	Deaths or injuries; or \$100,000s in damages
2	Moderate	Single death or several injuries; or \$10,000s in damages
1.5	Low	Injuries; or \$1,000s in damages
1	Slight	No deaths, single injury; or \$100s in damages

Likelihood of Hazard

A	Very Likely
B	Possible
C	Very Unlikely

The Planning Team met internally to rate the natural hazards to be profiled. They presented their draft ratings to the Local EMA Directors at their May 15, 2025 meeting, where the Local EMA Directors and attending stakeholders confirmed the rating and priority of each natural hazard to be profiled.

RATING OF HAZARDS BY HAZARD MITIGATION PLANNING TEAM				
<i>Confirmed by Local EMA Directors</i>				
Type of Hazard	Potential Damages	Source of Information	Rating	Priority
Flooding	Damages to structures in flood zones, bridges, culverts, and roads	FEMA MEMA Sources	3A	1
Severe Winter Storm	Downed power lines, blocked roadways and heavy snow damage	FEMA MEMA Sources	2.5A	2
Severe Summer Storm	Damages to structures in flood zones, bridges, culverts, and roads; downed power lines	FEMA MEMA Sources	2.0A	3
Wildfire	Timber lost, homes lost, businesses lost	Maine Forest Service/MEMA	2.0B	4 (tied)
Drought	Impacts to agricultural production and residential water supply	Maine Drought Monitor/MEMA	2.0B	4 (tied)

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FLOODING

INTRODUCTION

Lincoln County is subject to coastal storm surge and flooding inasmuch as three (3) rivers are located within its borders.

The Damariscotta River is bordered by the towns of Boothbay, Boothbay Harbor, Damariscotta, Edgecomb, Jefferson, Newcastle, Nobleboro, and South Bristol.

The Sheepscot River is bordered by the towns of Alna, Boothbay, Boothbay Harbor, Edgecomb, Newcastle, Westport Island, Whitefield, and Wiscasset.

The Medomak River is bordered by the towns of Bremen and Waldboro. The Town of Bristol is bordered by Muscongus Bay.

The Damariscotta River has one small dam located in the Town of Damariscotta. Flooding from the Damariscotta and Sheepscot Rivers has occurred on several occasions in Lincoln County communities.

GENERAL DEFINITION

The Federal Emergency Management Administration (FEMA) defines 'flood' as:

"A general and temporary condition of partial or complete inundation of 2 or more acres of normally dry land area or of 2 or more properties (at least 1 of which is the policyholder's property) from:

- Overflow of inland or tidal waters;
 - Unusual or rapid accumulation or runoff of surface waters from any source; or
 - Mudflow; or
 - Collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood as defined above."
-

FLOODING

Types of Flooding in Lincoln County

Per the National Weather Service, Gray Office, flooding in Lincoln County is often associated with a Nor'easter, tropical cyclone, or ice jams. Past storm reports suggest flooding from rainfall alone produces very little property damage unless there are additional contributing factors such as storm surge, backwater from a mainstream river, or ice jams.

Freshwater flooding most often occurs during the spring when heavy rains fall on snow-covered or frozen ground. Flash flooding is possible with thunderstorms producing 3 inches of rainfall an hour, but not often as impactful as spring flooding.

Based on the COOP Weather Observer in Newcastle, the mean annual precipitation is 44 inches, the wettest year on record was 2005 at 71.56 inches, and the driest with 33.81 inches in 1985. The seasonal snowfall average is 78 inches, with the highest amount in a single season 139.3 inches in 2015 and 1971.

The Maine USGS operates one local stream gage in Lincoln County - the Sheepscot River at North Whitefield. This station has been present since 1938. However, riverine flooding from the Sheepscot and Damariscotta Rivers is often not impactful to the area. Based on FEMA Flood Insurance Study, it would likely take a flood of 1987 discharges to cause impacts up to the 1% flood level.

The following types of flooding have potential to occur in Lincoln County:

Coastal Flooding: The temporary inundation of beaches and other land areas by the sea, usually because of coastal storms. Coastal flooding comes with two significant components: still water and storm surge. The typical high winds associated with coastal flooding exacerbate the flooding by “pushing” more water toward land. A nor'easter can cause a storm surge along the Maine coast. Fetch (the distance the wind can blow toward the shore from out at sea) is a significant factor in coastal flooding depths. The shape of the ocean floor just offshore is another variable. Wave action is another huge part of the coastal flood threat, such as during the Patriots Day Storm in 2007. Pounding surf and wave action can lead to severe road and beach erosion and wave run-up can locally induce storm surge water levels of three (3) to four (4) feet. Wave run-up is often overlooked and not shown on any standard GIS Sea Level Rise Viewer but is indicated in the FEMA Flood Insurance Rate Maps (FIRMs) Velocity Zones.

Dam Failure/Breach: Defined by FEMA as:

“A catastrophic type of failure characterized by the sudden, rapid, and uncontrolled release of impounded water, or the likelihood of such an uncontrolled release. It is recognized that there are lesser degrees of failure and that any malfunction or abnormality outside the design assumptions and parameters that adversely affect a

dam's primary function of impounding water is properly considered a failure. These lesser degrees of failure can progressively lead to or heighten the risk of a catastrophic failure. They are, however, normally amenable to corrective action".

Riverine/Riparian: Periodic overbank flow of rivers and streams, usually the result of spring runoff, but can also be caused by major rainstorms.

Tsunami: A wave produced by a disturbance that displaces a large mass of water – usually a result of geographic activities such as earthquakes, volcanic eruptions, underwater landslides, or in rare geologic cases, meteor strikes. After such a disturbance, displaced water travels outward from its site of origin as a series of unusually large waves at great speeds (Komar, 1996). All areas with an elevation less than 100 feet and within a mile of the coast could be impacted by a tsunami. Based on information obtained from the Maine Geological Survey, the change of a catastrophic event are minimal. Moreover, with the presence of the relatively shallow Georges Bank offshore, Maine remains protected from the full force of an Atlantic Ocean tsunami.

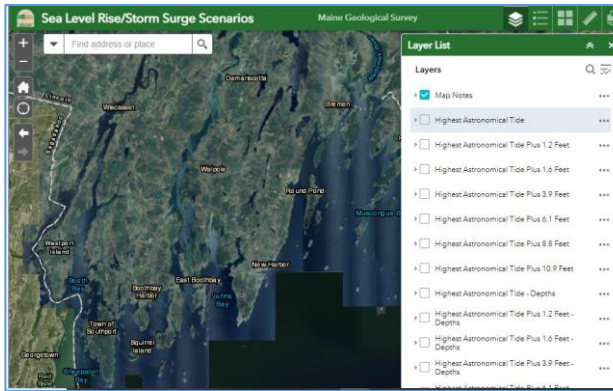
Urban: Overflow of storm sewer systems, usually due to poor drainage, following heavy rain or rapid snow melt. The combined sanitary and storm water systems that some urban areas installed years ago cause flooding of sanitary sewerage when riparian or coastal floods occur. Runoff is increased due to a large amount of impervious surfaces such as rooftops, sidewalks, and paved streets.

Location of Flooding Hazard

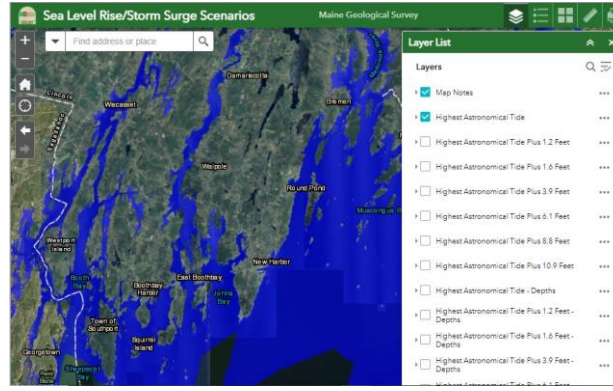
The Planning Team reviewed the County's Flood Insurance Rate Maps (FIRMS) and Flood Insurance studies to compile a profile of the flooding hazard in Lincoln County, including completing research on flooding history. A summary of this data is contained within **Element B: Risk Assessment**.

The Maine Geological Survey Sea Level Rise and Storm Surge Scenario Maps¹ were utilized to look at the areas in Lincoln County to be impacted during Highest Astronomical Tide; 1.6 ft. of sea level rise (SLR); and 3.9 ft. of SLR. Screen captures of these scenario maps are provided on the next page.

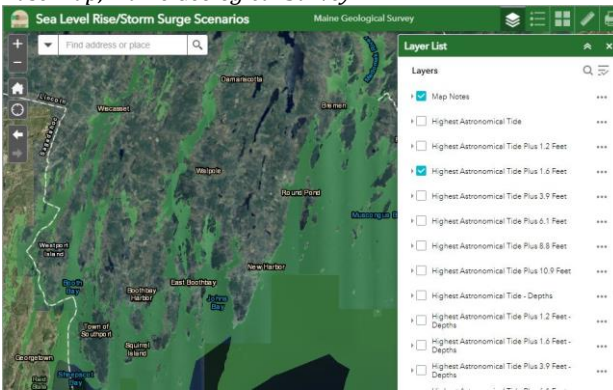
¹ Maine Geological Survey (2020). *Sea Level Rise/Storm Surge*.
https://www.maine.gov/dacf/mgs/hazards/slr_ss/index.shtml. Accessed May 10, 2021.



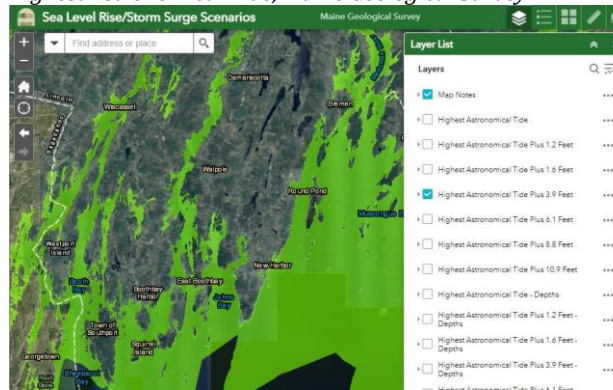
Base Map, Maine Geological Survey



Highest Astronomical Tide, Maine Geological Survey

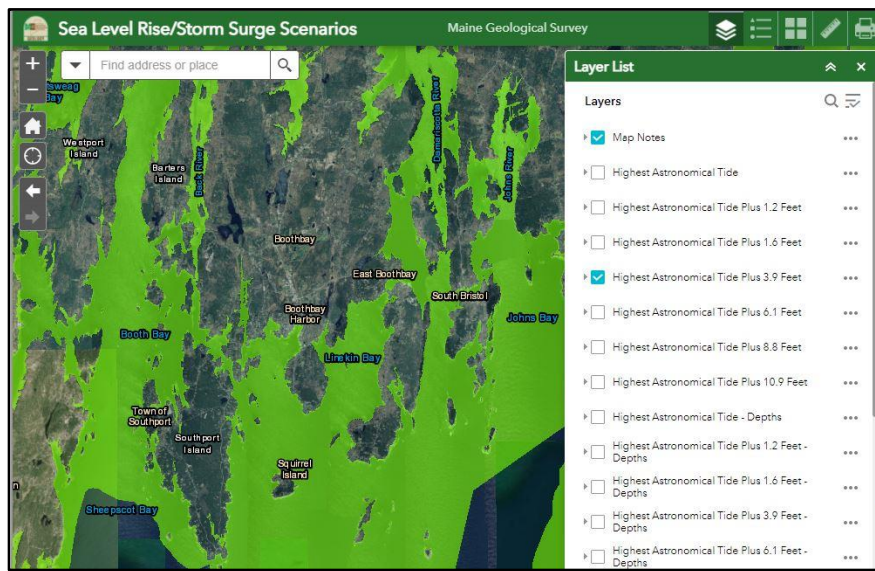


Highest Astronomical Tide + 1.6 ft.; Maine Geological Survey



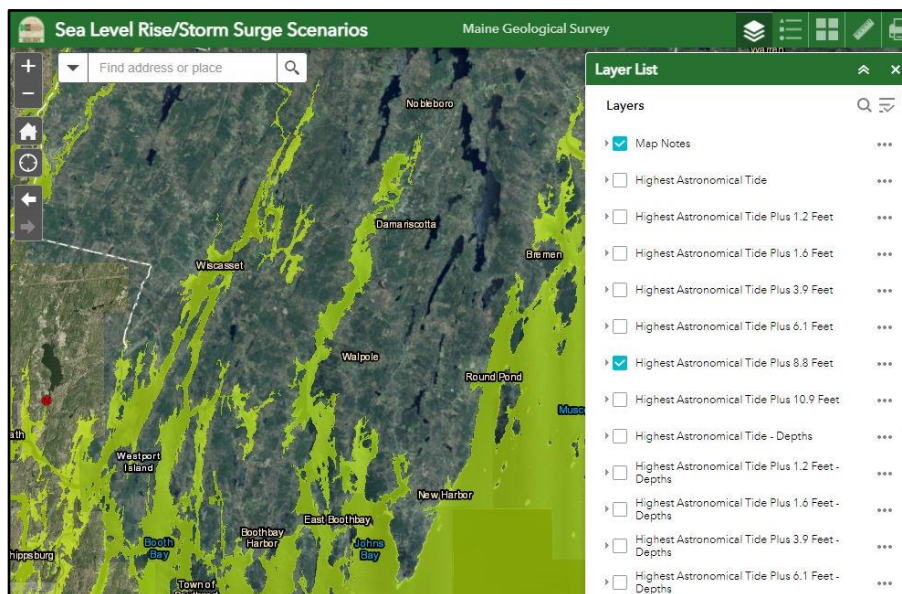
Highest Astronomical Tide + 3.9 ft.; Maine Geological Survey

As shown in the Maine Geological Survey map close-ups below, the most susceptible communities to coastal flooding are the downtown districts of Boothbay Harbor, Damariscotta, and the C1 Commercial District of Boothbay. Potential exists for Westport Island and Southport to be cut-off from the mainland if their bridges to the mainland become flooded.



Boothbay Peninsula at Highest Astronomical Tide + 3.9 ft.

Source: Maine Geological Survey



Westport, Wiscasset, and Damariscotta at Highest Astronomical Tide + 8.8 ft.

Source: Maine Geological Survey

Flood Insurance Rate Maps (FIRMs)

Below is a table identifying the applicable FEMA Flood Insurance Rate Maps (FIRMs) for each municipality within Lincoln County:

FLOOD INSURANCE RATE MAP NUMBERS BY JURISDICTION	
Alna	Applicable FIRMs (last dated July 16, 2015): 23015C0120D; 23015C0140D; 23015C0235D; 23015C0244D; 23015C0245D; 23015C0255D; 23015C0265D
Boothbay	Applicable FIRMs (last dated July 16, 2015): 23015C0334D; 23015C0341D; 23015C0342D; 23015C0343D; 23015C0344D; 23015C0355D; 23015C0361D; 23015C0362D; 23015C0363D; 23015C0364D; 23015C0431D; 23015C0432D; 23015C0444D; 23015C0451D; 23015C0452D; 23015C0453D; 23015C0454D; 23015C0461D; 23015C0462D; 23015C0463D; 23015C0464D; 23015C0470D
Boothbay Harbor	Applicable FIRMs (last dated July 16, 2015): 23015C0427D; 23015C0431D; 23015C0432D; 23015C0434D; 23015C0451D; 23015C0453D
Bremen	Applicable FIRMs (last dated July 16, 2015): 23015C0279D; 23015C0283D; 23015C0287D; 23015C0288D; 23015C0289D; 23015C0291D; 23015C0292D; 23015C0293D; 23015C0294D; 23015C0313D; 23015C0377D; 23015C0379D; 23015C0380D; 23015C0381D; 23015C0382D; 23015C0383D; 23015C0384D; 23015C0401D
Bristol	Applicable FIRMs (last dated July 16, 2015): 23015C0268D; 23015C0269D; 23015C0288D; 23015C0356D; 23015C0360D; 23015C0366D; 23015C0367D; 23015C0368D; 23015C0369D; 23015C0377D; 23015C0379D; 23015C0380D; 23015C0386D; 23015C0387D; 23015C0388D; 23015C0389D; 23015C0391D; 23015C0392D; 23015C0456D; 23015C0457D; 23015C0459D; 2315C0476D
Damariscotta	Applicable FIRMs (last dated July 16, 2015): 23015C0259D; 23015C0266D; 23015C0267D; 23015C0268D; 23015C0269D; 23015C0278D; 23015C0279D; 23015C0286D; 23015C0287D; 23015C0288D; 23015C0289D

Dresden	Applicable FIRMs (last dated July 16, 2015): 23011C0688D; 23011C0689D; 23023C0108F; 23023C0116F; 23015C0207D; 23015C0209D; 23015C0216D; 23015C0217D; 23015C0219D; 23015C0226D; 23015C0227D; 23015C0228D; 23015C0229D; 23015C0235D; 23015C0240D
Edgecomb	Applicable FIRMs (last dated July 16, 2015): 23015C0244D; 23015C0265D; 23015C0331D; 23015C0332D; 23015C0333D; 23015C0334D; 23015C0341D; 23015C0342D; 23015C0352D; 23015C0354D; 23015C0355D; 23015C0361D; 23015C0362D
Hibberts Gore	Applicable FIRMs (last dated July 16, 2015): 23015C0060D
Jefferson	Applicable FIRMs (last dated July 16, 2015): 23011C0570D; 23013C0125D; 23015C0044D; 23015C045D; 23015C0131D; 23015C0132D; 23011C0133D; 23015C0134D; 23015C0140D; 23015C0141D; 23015C0142D; 23015C0143D; 23015C0144D; 23015C0151D; 23015C0152D; 23015C0153D; 23015C0154D; 23015C0158D; 23015C0161D; 23015C0162D; 23015C0163D; 23015C0166D; 23015C0255D; 23015C0256D; 2301C0257D
Monhegan Island Plantation	Applicable FIRMs (last dated July 16, 2015): 23015C0500D; 23015C0514D; 23015C0515D; 23015C0518D; 23015C0520D; 23015C0525D; 23015C0726D
Newcastle	Applicable FIRMs (last dated July 16, 2015): 23015C0244D; 23015C0255D; 23015C0256D; 23015C0257D; 23015C0258D; 23015C0259D; 23015C0265D; 23015C0266D; 23015C0267D; 23015C0268D; 23015C0352D; 23015C0355D; 23015C0356D
Nobleboro	Applicable FIRMs (last dated July 16, 2015): 23015C0161D; 23015C0162D; 23015C0163D; 2301C0164D; 23015C0168D; 23015C0257D; 23015C0259D; 23015C0276D; 23015C0277D; 23015C0278D; 23015C0279D
Somerville	Applicable FIRMs (last dated July 16, 2015): 23015C0035D; 23015C0042D; 23015C0044D; 23015C0053D; 23015C0055D; 23015C0060D; 23015C0061D; 23015C0065D; 23015C0151D; 23015C0152D; 23015C0156D
South Bristol	Applicable FIRMs (last dated July 16, 2015): 23015C0354D; 23015C0356D; 23015C0360D; 23015C0362D; 23015C0364D; 23015C0366D; 23015C0368D; 23015C0452D; 23015C0454D; 23015C0456D; 23015C0458D; 23015C0459D; 23015C0462D; 23015C0470D
Southport	Applicable FIRMs (last dated July 16, 2015): 23015C0427D; 23015C0429D; 23015C0431D; 23015C0432D; 23015C0433D; 23015C0434D; 23015C0441D; 23015C0442D; 23015C0443D; 23015C0444D; 23015C0453D; 23015C0461D
Waldoboro	Applicable FIRMs (last dated July 16, 2015): 23015C0158D; 23015C0159D; 23015C0164D; 23015C0166D; 23015C0167D; 23015C0168D; 23015C0169D; 23015C0178D; 23015C0179D; 23015C0186D; 23015C0187D; 23015C0190D; 23015C0195D; 23015C0277D; 23015C0279D; 23015C0281D; 23015C0282D; 23015C0283D; 23015C0284D; 23015C0287D; 23015C0291D; 23015C0292D; 23015C0294D; 23015C0301D; 23015C0303D; 23015C0305D; 23015C0310D; 23015C0311D; 23015C0312D; 23015C0313D; 23015C0314D; 23015C0316D
Westport Island	Applicable FIRMs (last dated July 16, 2015): 23015C0329D; 23015C0331D; 23015C0332D; 23015C0333D; 23015C0336D; 23015C0337D; 23015C0338D; 23015C0339D; 23015C0341D; 23015C0343D; 23015C0426D; 23015C0427D
Whitefield	Applicable FIRMs (last dated July 16, 2015): 23015C0020D; 23015C0040D; 23015C0045D; 23015C0110D; 23015C0120D; 23015C0130D; 23015C0131D; 23015C0133D; 23015C0140D; 23015C0235D; 23015C0255D
Wiscasset	Applicable FIRMs (last dated July 16, 2015): 23015C0229D; 23015C0235D; 23015C0240D; 23015C0243D; 23015C0244D; 23015C0245D; 23015C0265D; 23015C0326D; 23015C0327D; 23015C0328D; 23015C0329D; 23015C0331D; 23015C0333D; 23015C0336D; 23015C0337D

In addition to the FIRMs listed above, the Lincoln County Regional Planning Commission created a Google Earth-based version of the FEMA Flood Insurance Rate Maps, which went

live on July 16, 2015. The special flood hazard areas shown on these maps are areas that are susceptible to the 1% Annual Chance Flood (i.e., the 100-year storm). The maps include each town's FIRM and town's parcel layer in Google Earth format.

Lincoln County Hazard Mitigation Plan Survey for Municipalities – Responses on Flooding

The survey questions asked respondents to identify areas in their jurisdiction that are susceptible to damages from flooding and/or have had repeated damages from flooding (such as road overtopping, culvert damages, coastal erosion, etc.).

Respondents also listed out possible specific actions to undertake in the susceptible areas to flood damage – both at the Countywide and individual municipality level.

The below Table is a summary of areas that could be subject to flooding; have had repeated flood damages; and what specific actions can be taken. A complete copy of all survey responses received is enclosed in **Appendix B**.

SURVEY RESPONSES – FLOODING NATURAL HAZARD		
Jurisdiction	Location of Hazard	Possible Actions
Countywide, including UTs	Countywide	<ul style="list-style-type: none"> • Response plans and equipment (e.g., barricades & signage for road closures, john boat, & vests, ropes & hooks, etc.) • Educate people about flood zones • Note that my perspective will be from a "sewer viewpoint". I have seen what flooding can do to the sewer plant. We built a berm at the sewer plant which successfully prevented the tide from encroaching into our tanks and basements. But this flood event was only a storm with super-high tides (not even a hurricane). Perhaps, if there is enough time, perhaps some berms could be built to protect other infrastructure. • Evacuation routes in plans, updating sea walls and funding, continue with advanced warning, additional signage, ? stranded populations • Culvert replacement, parking lot project, road ditching, beaver controls. • Flood plain vulnerability assessments, strengthen regulations to prevent further development in vulnerable areas, harden public infrastructure in vulnerable areas,

	<p>educate public what to do during storm events</p> <ul style="list-style-type: none"> • Mitigation study for potential flood areas • Provide "EMERGENCY DETOUR" signs for high risk areas to start and eventually have detour routes for all the communities to use for any incident so less personnel are used for traffic control and placement of signage. • Working with CMP to move electrical infrastructure away from flood prone areas. • Assessment of vulnerable areas, and then work with local officials to investigate plans for long term construction and emergency response. • Replace culverts and remove beaver dams. Monitor know location problems • Culvert upgrades and other storm surge protection on roadways • Plans require updates to reflect current FEMA maps, "In the event of a flood" brochure/booklet is needed - equipment-wise a shallow draft boat with ropes, an anchor, and flotation gear is needed • Infrastructure projects • Working with towns to identify the most flood prone areas and exploring funding to design (and build) resiliency measures. • Redesign use of flood-prone areas, install larger drainage under roads • Old Week's Mill dam on Colby road is in dubious condition, failure would cause washout of the culvert under Colby road and the water upstream is relied upon by several local fire departments. In general: Culvert upgrades in general. Better signage for evacuation routes and notification systems. Drainage systems and beaver control. • Bridge to Maine Medical Hospital in Damariscotta • Stream Smart crossings, upgrade small culverts to more appropriate sized and modern construction
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		<ul style="list-style-type: none"> Raise buildings out of flood zone, limit building in flood zones for new/rebuilds
Alna	Route 194 next to the river	Education
Boothbay	Ocean Point and King Philipps Trail. Any of the culverts are potentially a problem if they get plugged	Education Upgrading old infrastructure
Boothbay Harbor	Any of the culverts are potentially a problem if they get plugged	Upgrading old infrastructure
Bremen	Keene Neck Road susceptible to road overtopping. Shore Road susceptible to culvert damage.	Increase height of sections of Keene Neck Road.
Bristol	All of Bristol's coast (specifically Rt 32 in Chamberlain and the Point). - Roads and homes (primary and secondary).	State increasing buildings being built/rebuilt higher than before, raises roads (Rt. 32), heartier road construction, prepare people (when to evacuate, have a plan), identify and label evacuation route.
Damariscotta	Municipal parking lot project. Downtown - back parking lot. Miles hospital causeway. Culvert replacements, location of flood prone areas. Egypt Road,, Back Meadow Road, Church Street. A section of Back Meadow Road, Church Street at Castner Brook - also the Main Street culvert for Castner Brook.	Back parking lot drainage improvements and flood wall design. Projects are underway or planned for construction when grants are available. Info from selectman meetings.
Dresden	Culvert on Midde Road but has been fixed. Washouts regularly on our dirt roads.	Regular periodic checks to ensure all culverts are stable and not blocked by beavers or other debris. Road agent should be required to track washouts and all recurrences.
Jefferson	Low areas near lakes, culvert inspection, culvert size road conditions (including degradation and worsening conditions + and/or wear tear) isolated areas or areas cut off with flooding, access to resources, dam committee.	Reviewing local plans and code, assessing high risk areas, community education and participation in mitigation. Infrastructure projects or plan review and/or recommendations.
Monhegan Plantation	Monhegan Ave and other roads have damages due to storm surge and flooding from heavy rains. Dirt roads are often damaged from heavy rains and roads near the water suffer erosion. The wharf is damaged from overtopping during storms. Other locations also include: - Monhegan Avenue/Tribler Road Intersection & Drainage along Monhegan Avenue from Lighthouse Hill Road to drainage downhill of Monhegan Library - Monhegan Breakwater	<ul style="list-style-type: none"> - Culvert upgrades and storm surge protection. - Extend & Elevate or Relocate/Redesign Breakwater. - Elevate & Stabilize Monhegan Wharf surface. - Floodproof jib hoist cranes on Monhegan Wharf. - Redesign Wharf Ramp to maintain integrity in flooding event. - Install Rip Rap to armor Monhegan Freight Shed. - Obtain engineers evaluation of any other vulnerabilities needing to be

	<ul style="list-style-type: none"> - Monhegan Wharf - Bog Meadow Aquifer - Village area, in particular between Monhegan Harbor and Bog Meadow Aquifer from Fish Beach Road to Swim Beach Lane (Reference: 12/31/19 Resiliency Study by Baker Design Consultants) - Hill in area of Post Office on Monhegan Avenue 	<p>addressed at Monhegan Wharf due to Sea Level Rise, increased intensity of coastal storms, and other causes of coastal flooding.</p> <ul style="list-style-type: none"> - Use Education & Awareness Program to communicate flooding hazard and costs to Community. - Employ Flood Prevention between Bog Meadow Aquifer & Monhegan Harbor (based on study recommendations, but may be cost prohibitive). 1) Installing tidal check valve & subsurface stormwater improvements including resetting culvert and installing catch basin, outfall pipe and riprap and elevate nearby structures. 2) Elevate & Stabilize Monhegan Avenue roadway & corridor and/or construct flood wall and opening gate. - Replace/Upsize culverts at Monhegan Avenue/Tribler Road Intersection & Drainage along Monhegan Avenue. - Improve Monhegan Plantation gravel storage (Tribler Road) to increase capacity and access for storage of emergency supply of material used on roads for speedy emergency repairs that could prevent additional damage in subsequent flooding events (improvement of drainage not realistic in locations such as Hill in area of Post Office on Monhegan Avenue, but rapid repair or temporary installation of swale could reduce overall damage).
Newcastle	<p>East Old County Road, just off of Academy Hill Road.</p> <p>The right of way between North and South Dyer Neck Road.</p> <p>North Newcastle Road near 57 - Uptons property.</p>	N/A
Nobleboro	<p>There are several.</p> <p>Benner Road at the Waldoboro town line has flooding impacts.</p> <p>East Pond Road in the area of the power lines. Flooding (Hagar performed work and no issues yet)</p>	N/A
Somerville	Frye Road, Dodge Road, Jones Road.	Beaver control, dam/watershed restoration on S Colby, culvert improvements.
South Bristol	Area called the "bar" on Christmas Cove (2378 & 129 South). Low roadway with coast on both sides.	We have repaired and reenforced area of floodings damaged in 2024 winter storm. Unknown what can reasonably done for the area called "the bar" on Christmas Cove.

Southport	Any of the culverts are potentially a problem if they get plugged.	Upgrading old infrastructure.
Waldoboro	Waldoboro is a coastal community with tidal influence in the lower part of the Medomak River. Due to topography, the town is somewhat protected from coastal erosion and the impacts of storm surge from a large ocean storm. Back Cove Road would most likely overtop during extreme storm surge. Due to the hilly terrain and numerous creeks and storm water runoffs, there have been many areas that have suffered flooding damages in the past. Roads with repeated damages include: Duck Puddle Road, Orff's Corner Road, Winston Road, Jackson Road, Storer Mountain Road, Reef Road, Quarry Road, Wagner Bridge Road, Clary Hill Road, Cross Street, Feyler's Corner Road, Flanders Corner Road, Old County Road, Wagner Bridge Road.	Waldoboro has a full time Public Works Department that manages roadway and culverts. They routinely inspect culverts and ditches and performs maintenance including ditching, beaver dam removal and culvert replacement.
Westport Island	West Shore Road Post Office Road	We are working on the initial planning to fix Post Office Road and West Shore Road.
Whitefield	Some gravel road erosion and some road damage due to culvert overflow.	N/A
Wiscasset	Our waterfront. The many small brooks and streams that normally are not engorged with storm water and run off. On the edge of the Sheepscot River, by the wharf and near the sewer plant have sustained the effects of flooding in the past. Riverside (Back River) and waterfront areas from Water St. and north up Federal St. to Clark's Point Rd. as well as south to the Maine Yankee site on Old Ferry Rd. Mostly the waterfront area on Water St. to the Elementary School on Federal St. Water Street; Railroad Avenue. The sewer department.	N/A

Extent (Severity) of the Flooding Hazard

Flood damages to roads, bridges, and ditches continue to be the most common occurrence throughout Lincoln County, especially in heavy rain events (> 3" – 5" in 24 hours). Depending on the saturation level of the ground at the time of the event and the duration of the storm, the extent of damages can vary from a few overwhelmed culverts to major road washouts throughout Lincoln County. The range in severity of flooding events is documented in the 'Historical Summary of Major Flood Events in Lincoln County since 1973' table.

The extent of the flooding hazard under the various sea-level rise scenarios has not been determined for individual roads and culverts. This would have to be calculated on a case-by-case basis.

Nature of the Hazard – Coastal Flooding

The gradual rise in sea level is having a profound effect on the nature of coastal flooding. The State of Maine has adopted official sea level rise projections of 1.5 ft. by 2050 and 3.9 ft. by 2100.

If the 10-year and 100-year storm elevations are only one foot apart, a sea level rise of one (1) foot means a storm having a 1% chance of occurring in any one year (the 100-year storm) at the original elevation will have a 10% chance of occurring in any one year (the 10-year storm) at the new elevation. As a result, more homes, businesses, public infrastructure (including roads), and entire communities will be subject to devastating coastal storms and coastal erosion on a more frequent basis.

Wave action generated by winter storms, particularly nor'easters, is the most threatening cause of coastal flooding. The Patriot's Day storm, which occurred on April 16, 2007, was a nor'easter that caused significant damage throughout Lincoln County.

Dam Failure Risk

Maine dams were constructed incrementally over a period of 300 years. Businesses harnessed the abundant fast flowing rivers and rocky rapids for the development of energy and transportation. Many dams throughout Lincoln County are now aged. In Maine, the majority of these structures are nearly 100 years old - beyond the normal design life of civil engineering works. Many are low head dams constructed using local materials of stone, timber, and earth.

Dam failure is not a frequent occurrence although it can and does occur². In 2004, the Meadow Cove Dam in Boothbay breached, causing about \$30,000 in damages. It has since been repaired. In 2005, during the April flooding events, the Sherman Lake Dam in Newcastle washed out. No lives or buildings were lost. The Dam was not replaced. Meserve Dam in Jefferson breached in 2007 during the Patriot's Day Storm. Repairs took place in 2011/2012³.

More recently, Clary Lake Dam in Whitefield/Jefferson breached in 2011 during Hurricane Irene⁴. A lake association was created to rebuild and repair the structure. The breach did not cause any damage downstream, just damages to the dam itself⁵.

² Dam failure occurrences confirmed with MEMA Dam Safety Administrator, September 2025

³ <https://lcnme.com/currentnews/jefferson-to-repair-meserve-mill-dam/>

⁴ <https://bangordailynews.com/2018/10/14/news/mainers-now-own-the-dam-that-ruined-their-lake-heres-how-they-plan-to-bring-it-back/>

⁵ Supporting information on historic dam breaches was provided by the MEMA Dam Safety Program.

Maine Law, which is consistent with federal law, classifies the hazard potential of dams as High, Significant, or Low. If they fail, High Hazard dams could cause loss of life; Significant Hazard dams could cause significant property damage; and Low Hazard dams would generally cause damage only to the owner's property. Therefore, it is possible a small (low head) dam located above a large community could be rated High Hazard while a structurally larger dam sited in an unpopulated area could have a Low Hazard potential.

Most Lincoln County dams are located at the outlets of lakes and ponds and are small. The State of Maine maintains an inventory and condition rating for all dams in the State. Based on the review of this inventory, there are thirty-nine (39) dams in Lincoln County, including eleven (11) No Hazard dams, nineteen (19) Low Hazard Dams, and nine (9) Significant Hazard Dams. No High Hazard Dams exist in Lincoln County. The following table provides a summary of the Significant Hazard Dams in Lincoln County.

LINCOLN COUNTY SIGNIFICANT DAMS			
MEMA ID/H/S	Dam Name	Dam Location	Dam Owner
00455	Appalachee Pond	Boothbay Harbor	Appalachee Village Association
00454	Southport Water Supply	Southport	Southport
96163	Lower Great Brook	Damariscotta	Great Salt Bay Sanitary District
96162	Heart Pond	Damariscotta	Great Salt Bay Sanitary District
96164	East Branch	Damariscotta	Great Salt Bay Sanitary District
96165	Great Brook	Damariscotta	Great Salt Bay Sanitary District
00746	New Pond	Damariscotta	Great Salt Bay Sanitary District
00361	Meadow Cove	Boothbay Harbor	Joseph Paolilo
00791	Merserve	Jefferson	Town of Jefferson

Source: MEMA Dam Safety Team

With respect to the significant hazard dams shown above, Boothbay Harbor, Damariscotta, Jefferson, and Southport would be most at risk from a dam breach since release of impoundments of those dams could cause infrastructure damages, especially to downstream roads and bridges.

Previous Occurrences

The table on the next page contains a summary of floods that have occurred in Lincoln County, as reflected primarily in Presidential Disaster Declarations.

Historical Summary of Major Flood Events in Lincoln County Since 1973			
MONTH OF EVENT	YEAR	DAMAGES	DECLARATION
December	1973	---	N/A
February 8	1978	(Statewide) High winds, tidal surge, coastal flooding	Presidential FEMA-550-DR-ME
January	1986	Roads, bridges, dams, clean up	N/A
April 1	1987	Major damage to homes, businesses, public buildings (town halls, fire stations, libraries) parks and recreation areas, agricultural equipment and livestock; the pollution closed clam beds	Presidential FEMA-788-DR-ME

		downstream and severely damaged water and sanitation district facilities; erosion to river banks	
April (The "Easter Flood")	1993	Heavy rains, snow melt and ice jams damaged dirt roads and culverts damage, exceeding the annual road repair	<i>Presidential</i> FEMA-988-DR-ME
March 29- May 3	2005	Severe storms, flooding, snow melt, and ice jams	<i>Presidential</i> FEMA-1591-DR-ME
May 13	2006	Flooding	<i>Presidential</i> FEMA-1644-DR-ME (Only declared in York County)
March 16-18	2007	Flooding	<i>Presidential</i> FEMA-1691-DR-ME
April 15-23 (The "Patriot's Day Storm")	2007	Severe storms and inland and coastal flooding	<i>Presidential</i> FEMA-1693-DR-ME
April 28-May 14	2008	Severe storms and flooding	<i>Presidential</i> FEMA-1755-DR-ME
December 11 – 29	2008	Severe winter storm and flooding	<i>Presidential</i> FEMA-1815-DR-ME
June 18-July 8	2009	Severe storms, flooding, landslides	<i>Presidential</i> FEMA-1852-DR-ME
February 23 – March 2	2010	Severe winter storms, flooding	<i>Presidential</i> FEMA-1891-DR-ME
October 29- November 1	2017	Severe storm and flooding	<i>Presidential</i> FEMA-4354-DR-ME
April 30 – May 1 (The "May Day Storm")	2023	Severe storm and flooding	<i>Presidential</i> FEMA-4719-DR-ME
January 9 – 13	2024	Windstorm and flooding	<i>Presidential</i> FEMA-4764-DR-ME

Source: FEMA website and MEMA records

Profiles of Past Storm Events

Patriot's Day Storm: The Patriot's Day Storm, occurring on April 16, 2007, was one of the more damaging storms to hit Lincoln County in recent years. According the Gulf of Maine Ocean Observing System website, the Patriot's Day Storm of 2007 will be long remembered for its meteorological significance and devastating power. Violent waves destroyed homes, businesses, coastal roads and beaches, while forceful winds tore down power lines, leaving many residents in the dark for days. Portland had a peak wind of 59 mph measured on April 16th. An abnormally high spring tide plus a storm surge of 3 feet (2.72 feet at the Portland tide gauge) produced a high tide of 13.28 feet (the 7th highest tide measured since the early 1900s).

The National Weather Service's models had predicted a large snowstorm the week before that didn't occur. Instead, the jet stream carried the storm's energy over New England, dropping five to eight inches of rain along the coast, resulting in a significant coastal flooding event. During the Patriot's Day storm, there were four high tide cycles in which the water

was near or above flood stage and the waves were greater than 10 feet in height. This combination caused the tremendous amounts of damages seen during the storm.

DR-4764-ME, occurring between January 9, 2024 and January 13, 2024 is now the most impactful flooding hazard event to affect Lincoln County, causing over \$3 million in damages across the coastal communities and around \$50 million in damages across the State of Maine. This storm event is profiled in more detail on the next page.

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FLOODING

STORM PROFILE

A pair of back-to-back storms in January 2024 led to high winds, heavy rains, and storm surge, causing significant damage to coastal communities in Lincoln County and leaving thousands of residents without electricity.

Roads initially closed due to falling trees or downed power lines were reopened quickly, however, other roads were washed out causing significant infrastructure impacts. Route 32 in Chamberlin (a village within the Town of Bristol) was washed out by storm surge, closing the road to through traffic. In Boothbay, Shore Road and Ocean Point Road suffered damage.

The high tide on the morning of 01/10/2024 inundated the Damariscotta municipal parking lot at levels not seen since 1938.

Several structures in New Harbor (a village within the Town of Bristol), including docks, boat houses, and the Bristol Co-Op, were torn off their pilings by the storm surge. Total storm damage across Lincoln County amounted to \$3,156,284.92.



Flood Losses in Dollars by Municipality

The table on the following page contains a summary of flood losses by Town for various Federal Disaster Declarations since 1987. The table includes only public assistance losses and does not include individual and business losses, which can be substantial.

Probability of Occurrence

As reflected in the Presidential Disaster Declarations referenced above, it can be assumed that a major flooding event will cause road damages, infrastructure impacts, and power outages in Lincoln County at least once every five to ten years, although in the past five years we have seen flooding events become more frequent, especially storm surge. This frequency could become the 'new normal' depending on the rate at which sea level rise occurs during the next decade.

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Historical Summary of Major Flood Events in Lincoln County (since 1987)												
FLOOD DISASTER NUMBER; YEAR; DAMAGES												
	#788 1987	#988 1993	#1591 2005	#1691 2007	#1693 2007	#1755 2008	#1815 2008	#1859 2009	#1891 2010	#4354 2017	#4719 2023	#4764 2024
Alna	0	0	\$30,149	0	\$24,871	0	0	0	0	\$7,906.37	0	0
Boothbay	0	0	0	0	\$151,713	0	0	0	0	\$68,772.16	0	\$914,864.44
Boothbay Harbor	0	0	\$8,281	0	\$73,620	0	\$61,045	0	\$16,839	\$7,292.05	0	\$38,636.92
Bremen	0	0	\$5,455	\$1,404	\$32,971	\$10,255	\$10,942	0	\$15,882	\$7,951.78	0	0
Bristol	0	0	\$17,439	\$7,783	\$148,137	\$51,260	\$20,618	0	\$15,616	\$12,511.79	0	\$724,734.60
Damariscotta	0	0	0	0	\$38,394	\$12,399	\$4,149	0	\$2,327	\$18,718.34	\$5,108	\$4,699.09
Dresden	\$4,325	0	\$18,893	0	\$34,355	0	\$6,270	\$22,614	\$23,854	\$26,702.90	0	0
Edgecomb	0	0	0	0	\$98,908	\$37,839	\$20,476	\$65,882	\$35,379	\$32,770.08	\$76,980.56	0
Jefferson	0	\$344,108	\$14,217	\$5,856	\$12,105	\$14,071	\$14,729	\$32,773	0	\$4,935.11	0	0
Monhegan Island Plantation	0	0	\$13,050	0	\$28,741	0	0	0	0	0	0	\$741,188.00
Newcastle	0	0	\$49,416	0	\$178,185	\$33,850	\$14,961	\$134,709	\$13,870	\$25,041.49	\$118,152.40	\$10,130.18
Nobleboro	0	0	\$10,878	0	\$4,472	0	\$18,892	0	\$8,455	\$17,929.00	0	0
Somerville	\$12,341	0	\$99,868	0	\$48,086	0	0	0	0	\$17,759.21	\$121,629.24	0
South Bristol	0	0	0	\$1,461	\$54,290	0	0	0	\$15,818	0	0	\$217,747.54
Southport	0	0	0	0	\$13,385	0	0	0	\$11,026	\$8,232.49	0	\$244,440.00
Waldoboro	\$17,305	0	0	\$24,466	\$78,128	\$96,706	\$135,558	\$22,151	\$31,472	\$50,063.31	\$77,539.55	0
Westport Island	0	0	\$32,970	0	\$18,682	0	\$9,842	0	\$36,389	\$22,409.18	0	\$213,174.35
Whitefield	0	0	\$50,853	0	\$55,144	\$17,820	0	0	0	\$5,796.51	0	0
Wiscasset	0	0	0	0	\$11,448	0	\$59,929	\$34,649	\$10,409	\$63,671.88	0	\$46,669.80
LINCOLN COUNTY	\$33,971	\$344,108	\$351,467	\$40,969	\$1,105,635	\$274,200	\$377,411	\$312,778	\$250,880	\$419,670.01	\$399,409.77	\$3,156,284.92

Source: Maine Emergency Management Agency



WINTER STORMS

INTRODUCTION

Lincoln County is subject to severe winter storm events including “Northeaster” (nor’easter) winter storms, which occur most often between September and April of each year and produce significant precipitation in the form of rain or snow; gale force winds; and coastal flooding.

The County can also experience major ice storm events, as it did in January 1998. The winter of 2023/2024 also saw an increase in ice events, especially later in the season in March and April of 2024.

The Gulf Stream follows a path up the eastern seaboard bringing major storms with it to the Gulf of Maine. Air streams containing much colder air flow down from Canada and collide with the Gulf Stream over the New England Region.

GENERAL DEFINITION

Severe winter weather conditions are distinguished by low temperatures, strong winds, and often large quantities of snow.

WINTER STORMS

Types of Winter Storms in Lincoln County

Blizzard: Sustained winds of 40 miles per hour (mph) or more of gusting up to at least 50 mph with heavy falling or blowing snow, persisting for one hour or more, temperatures of ten degrees Fahrenheit or colder and potentially life-threatening traveling conditions. Sustained as frequent gusts of winds ≥ 35 mph with snow and blowing snow decreasing visibility to less and $\frac{1}{4}$ of a mile for three (3) or more hours.

Heavy Snow Storm: A snowfall of fifteen inches or more within 12 to 24 hours with sustained winds of less than 40 miles per hour, which disrupts or slows transportation systems and public safety departments' response capability.

Ice Storms: Rain, which freezes upon impact. Ice coating at least one-fourth inch in thickness is heavy enough to damage trees, overhead wires, and similar objects and to produce widespread power outage.

Nor'easter: Nor'easters are extra-tropical coastal storms that can produce tremendous amounts of precipitation and strong winds that can cause coastal flooding damage. When the precipitation is in the form of snow, sleet, or freezing rain, it can damage overhead utility lines and become a highway-driving hazard.

Sleet Storm: Frozen rain drops (ice pellets) which bounce when hitting the ground or other objects. Does not stick to objects, but in accumulated depths of two inches or more, produces hazardous driving conditions.

Location of Hazard

The entire County is subject to severe storms every winter.

Lincoln County Hazard Mitigation Plan Survey for Municipalities – Responses on Severe Winter Storms

Survey respondents were asked to identify areas in their municipality that are susceptible to severe winter storms, such as ice jams, power outages, etc. Respondents were also asked to list out possible specific actions the County (as a whole) and the individual municipality could undertake in areas susceptible to damage from severe winter storms.

The table on the following page is a summary of areas that could be impacted by winter storm events and what specific mitigation actions can be taken. A complete copy of the survey responses received is enclosed in **Appendix B**.

SURVEY RESPONSES – WINTER STORM NATURAL HAZARD		
Jurisdiction	Location of Hazard	Possible Actions
Countywide, including UTs	Countywide	<ul style="list-style-type: none"> • Assessments of likely risk areas within town, response equipment & signage • Work with CMP to cut potential hazards in summer • Winter storms are always a threat to knock out power, which is a critical problem where sewer pump stations are located. We have backup power generators at 12 of our 18 pump stations, and are seeking funding for six more. • I know that the bus barn on Gardiner Road (where we fuel our municipal trucks, police cars and fire vehicles) does not have a backup power generator for its fuel pumps. It would be great if they could get funding so we could fuel our vehicles during a power outage. • Lemming back trees, generators and/or battery programs, heating sources, continue with advanced warning, storm kits, warming centers • Warnings from NWS, DFD and PW preps. Trim roadways of tree growth. • Early warning from NWS, public works response, TV and Radio alerts. • Assist communities in creating shelters/ warming centers, educate public what to do during storm events • Identify all resources available • Possibly have permanent electronic signs for areas (like RTE1) to be placed to warn of an accident, event, construction, etc • Provide "EMERGENCY DETOUR" signs for high risk areas to start and eventually have detour routes for all the communities to use for any incident so less personnel are used for traffic control and placement of signage. • Working with CMP, other utilities and local government for greater access and more thorough tree trimming to mitigate tree damage during storm events. • Work with local EMA officials to come up with regional shelters that make sense for localized

		<p>communities when roads are expected to be closed throughout the area. Stockpile necessary items in these regions so that there is not reliance on transportation to get through a few days.</p> <ul style="list-style-type: none"> • Remove dead trees and overhanging branches near powerlines. Have backup heat/power and supplies for 3 days. Warming shelter locations • Tree control • Contingency plans for broken plow/snow blower and emergency plans for power outage during winter months • Planning & more - More thought needs to be given to "In the event of a" brochure or booklet is needed • Infrastructure improvement and public awareness • Ground to sky tree and limb clearing near power lines to help ensure power stays on. • We, as a culture, need to also be ok with not driving in severe snow/ice storms. Stay put! Take a day off. Stay home. • Coordinate neighbor to neighbor check ins and snow clearing after an event. • Educating the public on storm prep measures • More pro-active tree trimming along roadways • Communication with residents and partners (CMP), tree removal/cutting, storm-guard wire upgrades. • Tree trimming, prep to be without power for a while (education, generators)
Alna	Golden Ridge Road.	Education
Boothbay	Peninsula Geography leaves the area susceptible to longer power outages.	Remove dead trees and branches. Make people aware that they may have to survive without power and trips to the store.
Boothbay Harbor	Peninsula Geography leaves the area susceptible to longer power outages.	Remove dead trees and branches. Make people aware that they may have to survive without power and trips to the store.
Bremen	Power outages and tree damage throughout town.	Extensive tree trimming by CMP and State DOT.
Bristol	Due to the ocean, we get more ice and mix - further inland in Bristol can feel	Road side cutting, code enforcement changes to limited building in flood zone

	like we get two different storms. Winter storms also impact secondary road access. Elderly population.	and encourage homeowners to build higher, more resilient homes (no flat roofs), update EOP to reflect changes in Bristol's town structure and include plans regarding winter storms (wind, rain, mix, snow), public education (have a plan, be prepared to go without power).
Damariscotta	Municipal parking lot. Impacts to power lines on Lessner Road is historically the worst, then Back Meadow Road and Egypt Roads, followed by camp roads off these roads.	Warnings from NWS, DFD and PW preps. Trim roadways of tree growth. Establishing plowing contracts, infrastructure projects, road tree trimming. Opening shelter for extended power outages.
Dresden	Townwide. Limited areas are prone to recurrence.	Make sure Town's Pownalborough Hall and Town Office are equipped for use as a heating/charging center. Map areas that are prone to recurring impacts.
Jefferson	Impacts include: High winds, blizzard conditions and response areas, ability to respond, power outages and warming centers, warming shelter?, Ice storm resilience.	Encouraging community and individual preparedness, pushing out/sharing information (? Social media posts, people "offline"), assess high risk trees on public land near power lines.
Monhegan Plantation	<p>Windy conditions often result in internet outages and blocked roads due to treefall. Storm surge is a major issue during winter. The wharf and the beaches get the bulk of that damage as well as the main road in the village. Other locations of impacts include:</p> <ul style="list-style-type: none"> - Monhegan Breakwater - Monhegan Wharf - Shoreline of Monhegan Harbor, particularly in the vicinity of Fish Beach and Swim Beach - Swim Beach Lane & intersection with Monhegan Avenue at Bog Meadow Aquifer outlet - All private houses immediately along Monhegan shoreline - Monhegan Roads (downed trees) 	<ul style="list-style-type: none"> - Improve Breakwater effectiveness to reduce wave impacts on Monhegan shoreline and infrastructure, esp. Monhegan Wharf, as well as barge access as Fish Beach. - Explore alternative engineering designs that make Monhegan Wharf resilient when flooded (accepting risk for some level of wharf non-access during extreme weather events) vs. existing designs for height increase that presents new daily access issues particularly for local boats/freight movement and pedestrian traffic. - Identify erosion control measures and other shoreline modifications within the laws & regulations which could be employed in Monhegan Harbor, particularly in the vicinity of Fish Beach and Swim Beach, to sustain the shoreline long-term. - Redesign Swim Beach Lane road way and intersection with Monhegan Avenue as well as, parallel Bog Meadow Aquifer outlet to be resilient during flooding events and to allow debris removal needs to be reduced. - Property Owner Education re: pro-active clearing of dead and dying trees near roadways. - Collaborate on hiring of mainland-based tree cutting/clearing services/barge to

		address reduction of dead trees in efficient way where beyond local capacity.
Newcastle	Most of our roads are dead end roads. When trees/power lines fall, they block the road - isolating residents.	N/A
Nobleboro	Camp Road with wires down.	N/A
Somerville	Townwide	N/A
South Bristol	Consistent power outages with CMP lines. Seems as if trimming/clearing may be needed and a better routing of lines and breakers so all in southern South Bristol do not lose power every time a north South Bristol outage occurs.	We have repaired and reenforced area of floodings damaged in 2024 winter storm. Unknown what can reasonably done for the area called "the bar" on Christmas Cove.
Southport	Peninsula Geography leaves the area susceptible to longer power outages.	Remove dead trees and branches. Make people aware that they may have to survive without power and trips to the store.
Waldoboro	As a coastal rural Maine community, Waldoboro has its share of snow and severe winter storms. Waldoboro averages at least 1-2 storms per year when power is interrupted for one day or more for over 50% of the residents and 3-4 storms per year when power is interrupted for 10-15% of the of the community. The Medomak River bisects the town from North to South. There is history of an Ice Jam at the Route 1 Bridge that has moved the bridge from its foundation in the past. There are numerous trees that line almost 100 miles of road in Waldoboro. Most if not all roads in Waldoboro are susceptible to debris removal due to ice/snow covered trees.	Public Works maintains a higher state of readiness throughout the winter months by limiting vacation and travel from that area. The town will issue alerts via social media.
Westport Island	N/A	N/A
Whitefield	Power outages are extremely common, especially off the main roads. These can last for several days.	N/A
Wiscasset	Townwide. The waterfront small roads and route one. Outages are the biggest impact during winter storms. It affects the sewer plant and our 18 pump stations.	Develop a warming shelter plan. We would love to provide backup power generators for our remaining six pump stations (which have no backup power generators) to power them during outages.

Extent (Severity) of the Winter Storm Hazard

Winter storms in Lincoln County are now primarily ice storms that can last for several days and have ice accretion of an inch or more on tree branches and power lines. This can cause

major power outages because of downed trees, and/or low land flooding of roads and buildings if accompanied by several days of freezing rain.

The “January Thaw”, a typical condition where below freezing temperatures can rise into the 50’s and 60’s overnight and can rapidly melt the snow pack and precipitate flooding of buildings and roads.

The worst storm in recent history occurred in January 1998 and caused over \$291,000 in damage throughout Lincoln County. This storm, which nearly destroyed the electrical transmission system in the State of Maine, caused major damage to the forests, covered many roadways with debris and ice, and caused some exterior building damages.

Previous Occurrences

The table below is a summary of the most severe winter storms in Lincoln County.

Severe Winter Storm History in Lincoln County			
<i>MONTH OF EVENT</i>	<i>YEAR</i>	<i>DAMAGES</i>	<i>DECLARATION</i>
December	1929	(Counties Unknown) Ice storm extended from western New York into Maine; wide spread power outages from tree and overhead lines damage. Part of historical summary to the DR-1198 FEMA Interagency Report	N/A Source: Cold Regions Research Engineering Laboratories (CRREL)
March 7 Ice Storm	1972	Severe storms, flooding	Presidential FEMA-326-DR-ME
January 10	1978	(Statewide)	---
March 15	1978	Ice jams and heavy rains	---
March 13-14	1993	(Statewide) Maine blizzards, severe winds and snowfall, coastal storm	Presidential FEMA-3099-EM-ME
January 5 – 25 “Great Ice Storm of 98”	1998	(Statewide) As in 1929, this storm extended from western New York into all of Maine Power outages [Loss of heat, refrigeration, sanitation services]; Forestry damage	Presidential FEMA-1198-DR-ME
March 5-31	2001	Maine severe winter storm	Presidential FEMA-3164-EM-ME
December 17, 2002 – June 1, 2003	2003	Maine extreme winter weather; severe cold deep and frost; the “frozen pipes” disaster	Presidential FEMA-1468-DR-ME
December 11	2008	Maine severe winter storm, winter storms, and extreme cold	Presidential FEMA-3298-EM-ME
December 21- 26	2013	Severe ice storm caused extended power outages. Accompanied by the “Polar Vortex” it kept subfreezing conditions in place, also resulting in frozen pipes and water damage to homes; at least two deaths from CO poisoning.	Disaster Declaration denied
November 1-2	2014	Heavy, wet snow, accompanied by winds caused severe power outages for several days	None requested
January 26 – 28	2015	Blizzard that was part of major storm throughout the Northeast. While <u>not</u> included in the	Presidential FEMA 4208-DR

		Presidential Declaration, Lincoln County experienced significant power outages	
February 13	2017	(<i>Statewide</i>) Blizzard closed state and town offices. Public was warned to avoid any unnecessary travel which made snow removal efforts timely.	N/A
March 14	2017	Blizzard conditions along the coast and heavy snow fell throughout the State. School and meeting cancellations. State offices closed at 2PM.	N/A
December 17 - 21	2023	Significant wind and rain event causing massive power outages across Lincoln County. While not a declared disaster in Lincoln County, the storm caused downed trees and residents went without power for 8 days.	N/A
April 3 – 5	2024	Late season ice storm. While not a declared disaster in Lincoln County, impacts incurred included downed trees, closed roads, and power outages.	N/A

Sources: FEMA/MEMA

Profiles of Past Storm Events

January 1998 Ice Storm: The most severe winter storm was the ice storm of January 1998, which caused over \$291,000 in damages throughout the County. This was far less than in counties further inland, but it was still significant. Below freezing temperatures and record rainfall contributed to a blanket of solid ice throughout central Maine. Most State government offices were closed and numerous businesses were forced to close and remained closed due to blocked roadways and power outages.

The following table provides a town-by-town summary of damages resulting from the ice storm of 1998. The table includes only public assistance losses and does not include individual and business losses, which can be substantial.

Ice Storm of January 1998 Town-by-Town Summary of Damages			
Alna	\$3,135	Newcastle	\$1,370
Boothbay	\$24,610	Nobleboro	\$5,948
Boothbay Harbor	\$10,473	Somerville	\$29,579
Bremen	\$1,942	South Bristol	0
Bristol	\$5,593	Southport	0
Damariscotta	\$8,969	Waldoboro	\$48,113
Dresden	\$30,449	Westport Island	\$4,933
Edgecomb	\$26,858	Whitefield	\$61,607
Jefferson	\$14,286	Wiscasset	\$13,990
Monhegan Island Plt	0	Lincoln County	\$291,855

Source: MEMA

Winter 2023/2024: The winter of 2023/2024 was at the same scale as the Ice Storm of 1998, at least in terms of power outages at a state level. The impacts from the 2023/2024 winter season are profiled in more detail on Page 60.

Probability of Occurrence

It is expected a severe winter storm will create damage in Lincoln County at least once every three years, based upon the data presented in **Element B: Risk Assessment**.

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WINTER STORMS

STORM PROFILE

In addition to a pair of back-to-back storms in January 2024 that produced significant coastal flooding, Lincoln County was also impacted that winter by a series of high wind and ice storms that left Lincoln County with road closures and days long power outages. In December 2023 the County and State of Maine experienced high sustained winds with gusts reaching 60+ miles per hour, causing nearly 100 roads to be closed in Lincoln County and residents going without electricity for 8 days. In March and April 2024, the State and Lincoln County were impacted by two ice storm events causing power outages, road closures, and school closings.

At a statewide level, data from Central Maine Power shows that the past few winters have been at the same level or exceeded the number of power outages in their service territory as the January 1998 Ice Storm:

- Ice Storm of 1998 - 340,000 outages across CMP's territory
- December 2022 Wind Storm - 301,000 outages across CMP's territory
- December 2023 Wind Storm - 425,000 outages across CMP's territory
- March 2024 Ice Storm - 206,000 outages across CMP's territory
- April 2024 Nor'easter - 391,000 outages across CMP's territory



WIND AND ICE IMPACTS
2023 AND 2024 WINTER SEASON



SUMMER STORMS

INTRODUCTION

Severe summer storm damage typically involves downed overhead utility lines, flooding from heavy rains, debris in the roads, and often erosion, particularly along the immediate coast.

In recent years both inland and coastal communities have seen an increase in heavy rainfall events, where a significant amount of precipitation falls in a short period of time. The May Day Storm in 2023 (DR-4719-ME) saw almost 6 inches of rain fall in a 24-hour period. Coupled with high winds, damage included disruption in power, road closures, culvert and road washouts, and downed trees.

GENERAL DEFINITION

Severe summer storm events are violent weather phenomena producing winds, heavy rains, lightening, and hail, which can cause injuries and destruction of property, crops, and livestock. Severe summer storms generally occur between June and October each year.

SUMMER STORMS

Types of Severe Summer Storms in Lincoln County

There are several different types of severe summer storms in Lincoln County:

Hurricane: An intense tropical cyclone, formed in the atmosphere over warm ocean areas, in which wind speeds reach 74 miles per hour or more and blow in a large spiral around a relatively calm center called the “eye”. Please refer to the Saffir-Simpson hurricane scale in the table below. Lincoln County has not suffered a direct hit with a Category 1 or greater hurricane since 1954.

Saffir-Simpson Hurricane Scale		
CATEGORY	WIND SPEED	
	<i>mph</i>	<i>Knots</i>
5	≥156	≥135
4	131-155	114-134
3	111-130	96-113
2	96-110	84-95
1	74-95	65-83
NON-HURRICANE CLASSIFICATIONS		
Tropical Storm	39-73	34-64
Tropical Depression	0-38	0-33

Tropical Storm: An intense tropical cyclone with wind speeds less than 74 miles an hour. Tropical storms are very common in Lincoln County and sometimes are the result of hurricanes that lose strength by the time they get to the Maine coast.

Lightning: An electrical discharge that results from the buildup of positive and negative charges within a thunderstorm. When the buildup becomes strong enough, lightning appears as a “bolt”. This flash of light usually occurs within the clouds or between the clouds and the ground. A bolt of lightning reaches a temperature approaching 50,000°F in a split second. The rapid heating and cooling causes thunder.

Thunderstorm: A thunderstorm is formed from a combination of moisture, rapidly rising warm air, and a force capable of lifting air such as a warm or cold front, or a sea breeze. All thunderstorms have lightning and can occur singly, in clusters, or in lines.

Tornado: A violently rotating column of air extending downward from a thunderstorm to the ground. The distinctive slender, funnel-shaped cloud, with wind velocities of up to 300 miles per hour at the central core, destroys everything along its narrow ground path.

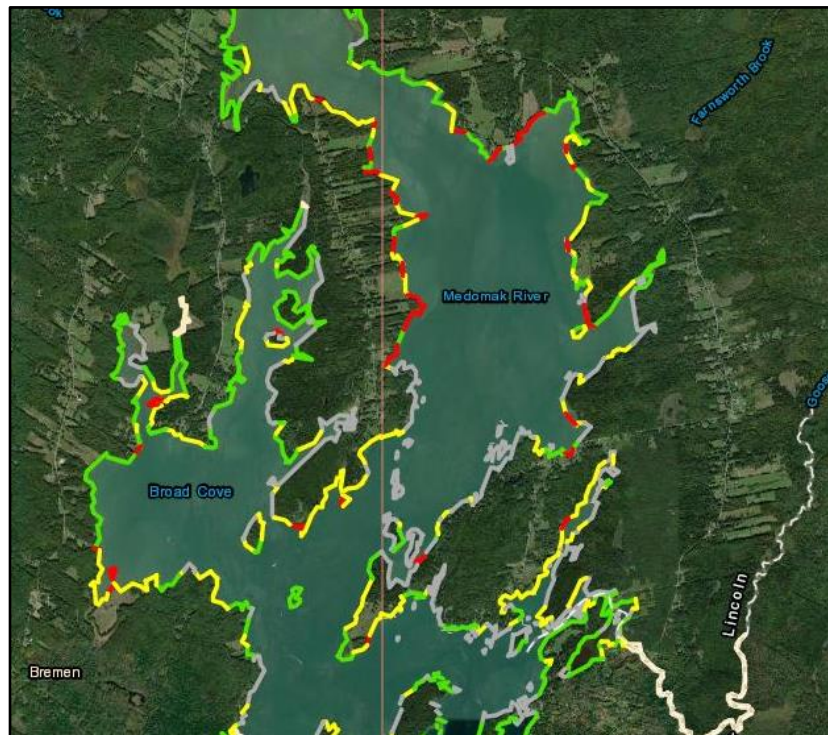
Microburst: A small, extremely intense downdraft, which descends to the ground creating strong wind divergence. Microbursts are typically limited to areas less than 2.5 miles across. This weather phenomenon is capable of producing damaging surface winds in excess of 100 mph. Generally, a microburst event will last no longer than 15 minutes.

Location of Hazard

Lincoln County is subject to severe summer storm events. The entire County is very susceptible to severe coastal summer storms, especially from high winds involved in such a storm. The entire County is vulnerable to one or more severe summer storms each year, usually in the form of thunderstorms.

Within Lincoln County, severe summer storms have the most impact on coastal shoreline areas, including harbor areas. Erosion evidenced in Lincoln County has been principally the result of severe storms. The location of coastal erosion and landslides (though rare) is found in low-lying shoreline areas, where flooding can also often occur. Below is an image from the Maine Geological Survey Coastal Bluffs and Landslides Map¹.

A number of areas along the Medomak River in Bremen and Waldoboro are classified as 'Unstable' (shown in yellow) and 'Highly Unstable' (shown in red).



Source: Maine Geological Survey Coastal Bluffs and Landslides Map

¹ Maine Geological Survey (2021). Coastal Bluffs and Landslides Map. <https://maine.maps.arcgis.com/apps/webappviewer/index.html?id=9f0794fa0a554c6b8afc0e005765dd08>. Accessed on 08/30/2021.

Lincoln County Hazard Mitigation Plan Survey for Municipalities – Responses on Severe Summer Storms

Survey respondents were asked to identify areas in their municipality that are susceptible to severe summer storms, such as power outages, debris removal, etc. Survey respondents were also asked to list out possible specific actions for Lincoln County (as a whole) and their town to undertake in the susceptible areas to summer storm damage.

The table below is a summary of areas that could be impacted by severe summer storm events and what specific mitigation actions can be taken. A complete copy of the survey responses received is enclosed in **Appendix B**.

SURVEY RESPONSES – SUMMER STORM NATURAL HAZARD		
Jurisdiction	Location of Hazard	Possible Actions
Countywide, including UTs	Countywide	<ul style="list-style-type: none"> Assessments of likely risk areas within town, response equipment & signage Just stay on top of potential weather events Right now we are seeking funding for upgrading an undersized pump station on route 1, Bath Road. The station has difficulty keeping up with storm flows when we get 2-3 inches of heavy rain in a short period. Shelters, lemming, back trees, CMP insulated lines, advanced, warning, response teams, food spoilage, overheating including: pets, people, and homes Warnings from NWS, DFD and PW preps. Trim roadways of tree growth. Identify flood zones, clean out roadsides. Assist communities in creating shelters/ warming centers, educate public what to do during storm events; assist communities with culvert inventories Make sure all emergency facilities are available and accessible Possibly have permanent electronic signs for areas (like RTE1) to be placed to warn of an accident, event, construction, etc Provide "EMERGENCY DETOUR" signs for high risk areas to start and eventually have detour routes for all the communities to use for any incident so less personnel are used for traffic control and placement of signage.

		<ul style="list-style-type: none">• CMP is adding tree wire or covered wire/conductor to mitigate outages related to summer storms and tree contacts to the lines. Automation is also being added to circuits serving Lincoln County Communities to decrease outages quicker when faults do occur.• Work with local EMA officials to come up with regional shelters that make sense for localized communities when roads are expected to be closed throughout the area. Stockpile necessary items in these regions so that there is not reliance on transportation to get through a few days. In addition, work to identify what these shelter locations need for resources to ensure water, power, food, and hygiene needs are met.• Remove dead trees and overhanging branches near powerlines. Have supplies for 3 days. Cooling shelter locations• Remove dead trees and overhanging branches near powerlines. Have supplies for 3 days. Cooling shelter locations• Tree control• Education for the public about what to do in different storm scenarios since it's a high tourist time of year. Emergency plans for power failure and water shortages.• Planning & more - More thought needs to be given to "In the event of a" brochure or booklet is needed• Public awareness• Ground to sky tree and limb clearing near power lines to help ensure power stays on.• Educating the public on storm prep measures• Improve drainage before needed• Culvert improvements, tree trimming. Batter lending, food delivery or spoilage controls, same concerns as #2 as far as downed power lines.• Tree trimming, education on being without power for a while
Alna	Golden Ridge Road.	Education

Boothbay	Dead end and rural roads can leave residence trapped.	Education. Remove dead trees and branches. Make people aware that they may have to survive without power and trips to the store.
Boothbay Harbor	Dead end and rural roads can leave residence trapped.	Remove dead trees and branches. Make people aware that they may have to survive without power and trips to the store.
Bremen	Power outages and tree damage throughout town.	Extensive tree trimming by CMP and State DOT.
Bristol	Route 32 in Chamberlain and the Point.	Building regulations, EOP to have provision regarding influx of people during the summer and visitors who may need education on emergencies that happen in the area during the summer.
Damariscotta	All camp and private roads toward lake camps, Biscay Road, Church Street, Egypt and Back Meadow Roads. Hospital complex, downtown area, houses relying on sump pumps.	Alerts from Lincoln County EMA, NWS forecasts, shelter locations list. Opening shelter for extended power outages.
Dresden	Townwide	Assessments of likely risk areas within town, response equipment & signage, include charging/cooling center plans. Make sure Town's Pownalborough Hall and Town Office are equipped for use as a cooling/charging center.
Jefferson	Increased power outage, risk, cooling centers, food, spoilage, JCFP, isolated roads and populations.	Encouraging community and individual preparedness, pushing out/sharing information (? Social media posts, people "offline"), assess high risk trees on public land near power lines. Encouraging being a "neighbor", community/volunteer check-in program (work with churches or other local organizations?), updating center/shelter information.
Monhegan Plantation	Tropical storms create storm surge much like winter storms. Heavy rainfall washes out the dirt roads quickly. Other locations of impacts include: - Monhegan Breakwater. - Monhegan Wharf. - Shoreline of Monhegan Harbor, particularly in the vicinity of Fish Beach and Swim Beach. - Swim Beach Lane & intersection with Monhegan Avenue at Bog Meadow Aquifer outlet. - All private houses immediately along Monhegan shoreline. - Monhegan Roads - Downed trees, esp. on all portions within older spruce forest inc. Black Head Road and Lobster	- Education to public for what to do during a storm and emergency contacts. - Improve Breakwater effectiveness to reduce wave impacts on Monhegan shoreline and infrastructure, esp. Monhegan Wharf, as well as barge access as Fish Beach. - Explore alternative engineering designs that make Monhegan Wharf resilient when flooded (accepting risk for some level of wharf non-access during extreme weather events) vs. existing designs for height increase that presents new daily access issues particularly for local boats/freight movement and pedestrian traffic. - Pro-active clearing of ditches and

	Cove Road. - Monhegan Roads - Lighthouse Hill to Monhegan Avenue/Tribler Road Intersection & Drainage along Monhegan Avenue from Lighthouse Hill Road to drainage downhill of Monhegan Library – erosion from intense summer rain & thunderstorms.	drainages along and downhill of steep roadways. - Quick fill-in of eroded areas. - Improve storage space for emergency supply of road materials and adjust budgeting/long-term planning to increase emergency stockpile. - Improve drainage on Lighthouse Hill Road/Black Head Road and downhill on Monhegan Avenue.
Newcastle	Most of our roads are dead end roads. When trees/power lines fall, they block the road - isolating residents.	N/A
Nobleboro	N/A	N/A
Somerville	Crummett Mountain, Jones, Somerville, Hewett roads: Risks include culvert washouts and roads over-topping. Colby Road dam same. Frye and Dodge (private roads) prone to stranded populations when roads overtop or washout.	N/A
South Bristol	Power outages with CMP lines. Seems as if trimming/clearing may be needed and a better routing of lines and breakers so all in southern South Bristol do not lose power every time a north South Bristol outage occurs.	We have repaired and reenforced area of floodings damaged in 2024 winter storm. Unknown what can reasonably done for the area called "the bar" on Christmas Cove.
Southport	Dead end and rural roads can leave residence trapped.	Remove dead trees and branches. Make people aware that they may have to survive without power and trips to the store.
Waldoboro	The entire town is susceptible to the damage caused by Severe Summer Storms. There are numerous trees that line almost 100 miles of road in Waldoboro. Most if not all roads in Waldoboro are susceptible to debris removal due to heavy winds or lightning strikes.	Waldoboro Fire and Public Works have an excellent working relation. When numerous trees come down, a local EOC is established to prioritize response.
Westport Island	N/A	N/A
Whitefield	N/A	N/A
Wiscasset	Townwide. The waterfront small roads and route one. Outages are a threat to our pump stations, and particularly to our #3 pump station on Bath Road, Route 1, which is undersized and is a threat to overflow in huge storms.	Develop a cooling shelter plan. Upgrade #3 pump station with larger pumps and a larger wet well. Olver Associates has already surveyed the station and has provided blueprints and specs for the upgrade. This project is shovel ready.

Extent (Severity) of the Summer Storm Hazard

In the summer, southwest to southwesterly wind may become quite prevalent across Lincoln County. Southerly winds prevail along the coast during the summer months due to the frequent formation of sea breezes. Severe summer storms can bring high winds (>50 mph) that can fell trees and branches onto power lines, causing power and/or communication outages. Heavy rains (>2 inches in 1 hour period) often accompany thunderstorms and can result in flash flooding or erosion. When hail is greater than ½ inch, it can cause crop damage for farmers and backyard gardeners. Lighting strikes can start fires. Any of these weather events can cause personal injury or property damage.

The impacts of summer storms in Lincoln County is usually restricted to flooding caused by the significant amounts of moisture these storms can carry, as well as high-wind damages to individual properties.

Previous Occurrences

The table below is a summary of severe summer storms that have occurred in Lincoln County. (Note: Flooding during the spring is often a result of snowmelt, which may be from winter storms).

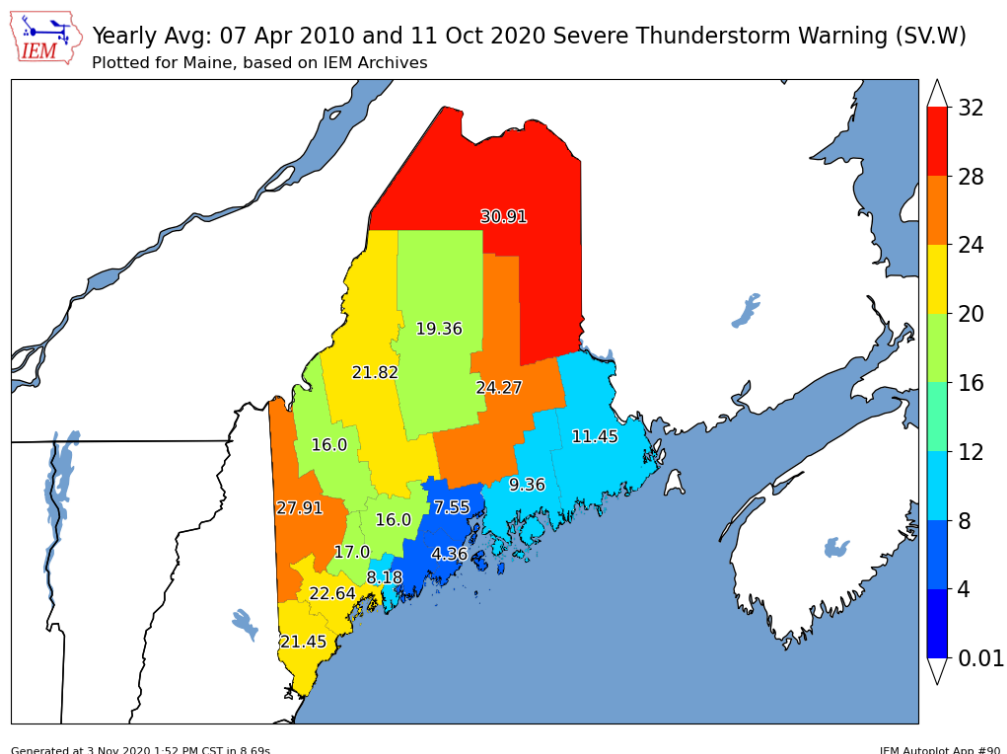
Historical Summary of Severe Summer Storm Events in Lincoln County				
<i>MONTH OF EVENT</i>	<i>YEAR</i>	<i>CATEGORY</i>	<i>DAMAGES</i>	<i>DECLARATION</i>
August 25 – September 1 “Carol”	1954	Category 1	Power outages, downed trees	SBA
September 2 - 15 “Edna”	1954	Category 1	Statewide flooding	<i>Presidential</i> #24
October 29 “Ginny”	1963	Category 2 (did not make landfall)	(Statewide)	---
September 6 “David”	1979	Tropical Storm	(Statewide) Minor damage	---
September “Diana”	1984	Tropical Storm (did not make landfall)	(Statewide) Coastal communities threatened	---
September 16 – October 2 “Gloria” ¹	1985	Tropical Storm (Cat 1 at landfall in NE, but downgraded to TS in Maine)	Power outages, downed trees	None
August 16 – 20 “Bob” ¹	1991	Tropical Storm (Cat 1 at landfall in NE, but downgraded to TS in Maine)	Power outages, damage	<i>Presidential</i> FEMA-915-DR-ME
September 7 – 19 “Floyd” ¹	1999	Hurricane	---	<i>Presidential</i> FEMA-1308-DR-ME
April 28 – May 14	2008	Severe storms	Flooding	<i>Presidential</i>

				FEMA-1755-DR-ME ²
June 18 – July 8	2009	Severe storms	Flooding and landslides	<i>Presidential</i> FEMA-1852-DR-ME ²
August 27-29 Tropical Storm “Irene”	2011	Tropical Storm	(Statewide) Extensive flooding, power outages, debris cleanup from high winds	<i>Presidential</i> FEMA-4032-DR-ME
September 11 – 12	2013	Severe storms	Severe thunderstorm winds	No declaration
July 15	2014	Severe storms	Severe thunderstorms, wind damage, road blockage by debris	No declaration
October 30	2017	Severe storms	Severe wind damage	No declaration
September 6	2018	Severe storms	Severe thunderstorms, numerous downed trees	No declaration
June 28-30	2019	Severe storms	Hail, straight-line winds, tree/power line damage	No declaration
July 31	2019	Severe storms	Tree damage	No declaration
August 24-25	2020	Severe storms	Hail and extensive wind damage	No declaration
April 30 – May 1 “May Day Storm” ³	2023	Severe storms	Flooding and high winds	<i>Presidential</i> FEMA-4719-DR-ME

Notes:

1. Tropical storm by the time it passed through Lincoln County. Of the hurricanes listed in this table, only Hurricane Edna hit Lincoln County directly. For the other hurricanes listed, heavy rain, winds and flooding occurred, but not at hurricane-strength levels.
2. Flooding
3. Also featured in the “Flooding” Natural Hazard section.

Sources: FEMA/MEMA



Source: National Weather Service – Gray Forecasting Office

Probability of Occurrence

No probability studies are available for summer storms. However, based on experiences, the County can expect thunder and lightning yearly. It is expected a severe storm will create damage in Lincoln County at least once every three years.

The County has not recorded a F2-5 tornado since 1950. Historically the probability of an F2-5 tornado is low and will not be considered further in the Plan.

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INTRODUCTION

Lincoln County is subject to wildfires. Nearly 80% of the County is forest land and the accessibility by vehicle to many areas is limited. A wildfire in October 1825 burned 3,000,000 acres in Maine and New Brunswick. The most severe wildfire in the State's recent history occurred in October 1947. This fire burned 205,678 acres and caused 16 deaths. However, most of the damages were confined to Cumberland, Hancock, Oxford, and York Counties.

All parts of Lincoln County could be subject to wildfires. The most northern part of the County has the least accessibility to the productive forestland due to the lack of roads and development. The central and southern portions have a larger number of homes and businesses within the Wildland-Urban interface.

GENERAL DEFINITION

A wildfire is a fire that burns vegetative cover such as grass, timber, or slash. Wildfire is a natural phenomenon initially finding its origin in lightning. However, humans have become the greatest cause of wildfires in Lincoln County. There are two types of wildfires:

- **Wildland fires** are defined as those fires that burn vegetative cover: grass, brush, timber, or slash.
 - **Wildland urban interface fires** are created when homes meet with high volatile forest fuels.
-

WILDFIRES

Location of Hazard

The Maine Forest Service tracks all reported fire occurrences in the State on an annual basis. Based on a review of this information, there have been no major fires in Lincoln County in recent years.

However, an increase in brush fires has been reported by Lincoln County Emergency Management Agency and local fire departments. This is likely in part due to past and current drought conditions.

At the state level, in 2025 Maine has seen a higher number of wildfires compared to average years, with reports of nearly triple the usual number for the summer months. At the time of this writing, Maine has seen 525 wildfires statewide, burning a total of just over 400 acres.

Lincoln County Hazard Mitigation Plan Survey for Municipalities – Responses on Wildfires

Survey respondents were asked to identify areas in their municipality that are susceptible to wildfires and subsequent property damage, such as home and vacation properties in the woods. Respondents were also asked to list out possible specific actions for the County (as a whole) and the individual jurisdiction to undertake in the susceptible areas to wildfire damage.

The table below is a summary of areas that could be impacted by wildfire events and what specific mitigation actions can be taken. A complete copy of the survey responses received is enclosed in **Appendix B**.

SURVEY RESPONSES – WILDFIRE NATURAL HAZARD		
Jurisdiction	Location of Hazard	Possible Actions
Countywide, including UTs	Countywide	<ul style="list-style-type: none"> Assessments of likely risk areas within town, determination of recommended response equipment Educate people Good forestry practices will help. Removing dead and rotting trees, maintaining power corridors and wind breaks, etc. Resources for local fire departments, community education w/ MFW, chipping program, clearing clutter with question of community involvement Camp and private roads need to be wider for vehicles.

		<ul style="list-style-type: none"> • Clean up blowdowns along roadways, check private roads, fire department equipment upgrades. • Assist communities with training and equipment to fight wildfires • Keep updating hydrant services • Improving the reliability and safety of the electrical system by installing new poles made of longer lasting, hardier materials. • Education with landowners on how to best manage their land and reduce the risk of wildfires, and help prevent them from spreading to structures if/when they occur. • Increase public awareness of the danger. When in doubt do not approve burn permits • Education for the public about fire safety. Better signage in wildlands and around village about wildfire potential. More training for VFD. Mitigation such as creating fire blocks between wildlands and village area/ clearing deadfall deemed dangerous • Planning & more - More thought needs to be given to "In the event of a" brochure or booklet is needed • Natural systems protection • Where did Smokey the Bear go? Put Kevin in the costume. • Build incentives into culture that encourage youth to participate in fire prevention work and firefighting work • Controlled burns, improve/maintain fire roads, brush chipping (state forestry partnership?), public awareness/education. • Maintaining records of wildland fire-trained firefighters to call when needed. • Chipping, clearing underbrush, education on safe burning practices
Alna	Townwide	Education
Boothbay	Many unmanaged wooded areas with thick underbrush could support large wildfires.	Education Manage public land and raise awareness as to steps property owners can take such as clearing out old brush.
Boothbay Harbor	Many unmanaged wooded areas with thick underbrush could support large wildfires.	Manage public land and raise awareness as to steps property owners can take such as clearing out old brush.

Bremen	Bremen Long Island and Cow Island.	Install fire fighting equipment on Bremen Long Island along with education and awareness programs for residents.
Bristol	The Point - Cliff Rd has a lot of dead slash and fallen trees that haven't been taken care of. It appears to dry up there first. No fresh water access (ice pond is closest), even difficult to access salt water.	Public education (when/how to burn, clearing properties, camp fires).
Damariscotta	The areas outside of the commercial district. Bristol Road woods, Egypt Road woods.	Maine Forest Service sends out alerts for red flag days, local ranger visits towns and schools. Camp and private roads need to be wider for vehicles. Attack the fire, call in mutual aid resources and state resources.
Dresden	Townwide. Heavily treed town, but no planned potential firebreaks except roadways & rivers.	Assessments of likely risk areas within town, determination of recommended response equipment, include likely staging & mutual aid agreements.
Jefferson	Every part of town is at risk. Resources for fire department (continue with town support of fire department efforts (burn permit stipulations, community education, identify possible areas to clean up, more hydrant access around town including Clary lake and the mill dam)).	Grant/funding opportunities for FD, collaboration with MFW (they're local but not everyone may know) , community education, emergency planning with possible public assistance.
Monhegan Plantation	Wildfires are a major concern for Monhegan since most of the island is preserved wildlands and the developed area is concentrated in one "village" meaning if a wildfire spreads to the village it can create mass damage. All Portions of Monhegan Island (given size and local winds), including: - Monhegan village area. - 350 acre private land trust that borders Monhegan Village. - Monhegan Plantation Power District's Power Plant (Lighthouse Hill Road). - Monhegan Plantation Water Department's Pump Station (Water Lane) & Holding Tanks (Tower Lane). - Monhegan Museum (Lighthouse Hill Road), including historic artifacts & art collection .	Education for the public about fire safety. Better signage in wildlands and around village about wildfire potential. More training for VFD. Mitigation such as creating fire blocks between wildlands and village area/ clearing deadfall deemed dangerous. - Improve capability of local fire dept. to respond quickly with effective actions to stop fire early. - Annual Homeowner/Property Owner education program to teach best practices for reducing forest fire risk and enhancing protection of property. - Collaboration with Monhegan Associates land trust to identify high risk areas, mitigation activities and, when appropriate, increase affordable access to cutting forestry management services to landowners. - Increase year-round population of residents in age 20-30 demographic.
Newcastle	Being a rural wooded town, wildfires can be a real threat. Our 21 town hydrants exist in the downtown area connected to the three town Salt Bay	N/A

	Sanitary District (Newcastle, Damariscotta, and Nobleboro). We have a limited number of dry hydrants and have to rely on tanker trucks for the majority of our community.	
Nobleboro	N/A	N/A
Somerville	Crummett Mountain Road is our highest risk.	Improve fire roads, brush clearing, controlled burns.
South Bristol	Continued fire hazard warning for days.	Volunteer fire department has added individuals to its membership and increased training in wildland fire and received Forestry certification.
Southport	Many unmanaged wooded areas with thick underbrush could support large wildfires.	Manage public land and raise awareness as to steps property owners can take such as clearing out old brush.
Waldoboro	Waldoboro is primarily a rural community with the exception of a small downtown area and the Route 1 corridor. These areas are fairly free from the threat of wildfire. However, lands to the north and south of Route 1 are heavily forested with fields and farms scattered throughout. During long periods of drought most of the town would be susceptible to property damage from Wildfire.	Waldoboro Fire Department routinely reviews mutual aid protocols and maintains a close working relation with the Maine Forest Service. Training is conducted annually. Grants are utilized to upgrade and replaced outdated forestry equipment.
Westport Island	N/A	N/A
Whitefield	Lots of forest in Whitefield. Forestry logging operations can be hit-or-miss in whether or not they leave behind risky debris.	N/A
Wiscasset	Townwide. Small dead end roads and large areas. Anywhere there is a wood structures or heavily wooded areas that are not well maintained.	The fire department has mutual aid agreements with all area fire departments and county agencies for assistance with wildfire suppression.

Extent (Severity) of the Wildfire Hazard

Based on information obtained from the Maine Forest Service, there have been no major fires in Lincoln County in recent years. All of the wildfires known to have occurred were confined to relatively small land area.

Probability of Occurrence

While probability studies have not been done, based on the historical records of fires, the Maine Forest Service anticipates that on a statewide basis there will be between 600-700 low acreage fires (from all causes) each year (a low acreage fire is less than 500 acres).

At the time of this report's final drafting, Maine has experienced 525 wildfires, burning a total of 406 acres. Based on a report from the U.S. Forest Service¹, 330 wildfires have occurred in Lincoln County between 1992-2018, accounting for a total of 281 burned acres. Based on this report, the average number of wildfires per year in Lincoln County is approximately 2, with an average of 10.41 acres burned per year. The largest wildfire during this time period burned 16.3 acres in 2005.

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¹ <https://www.fs.usda.gov/rds/archive/catalog/RDS-2013-0009.6>



DROUGHT

INTRODUCTION

Drought is a normal recurring feature in all climatic regions. While all droughts originate with a deficiency of precipitation, drought is a unique hazard due to the usually slow progression of the phenomenon. Drought impacts respond to precipitation anomalies on varied timescales. This makes it difficult to determine a clear beginning or end to any drought event, particularly those that are prolonged.

The U.S. Drought Monitor, which started in 2000, indicates the longest duration of drought (D1-D4) in Maine lasted 110 weeks, beginning on June 19, 2001 and ending on July 22, 2003. The most intense period of drought occurred the week of January 8, 2002, where D3 affected 61.67% of Maine land.

At the time of this final draft writing, 100% of Lincoln County's land area is located in a severe drought (D2). Statewide, 62.67% of Maine's land area is located in a drought (D1-D4).

GENERAL DEFINITION

Drought is a period of below-average precipitation in a given region, resulting in prolonged shortages in its water supply. This can include atmospheric, surface water, or groundwater.

DROUGHT

Types of Drought in Lincoln County

Meteorological Drought: When dry weather patterns dominate an area.

Hydrologic Drought: When low water supply becomes evident in streams, reservoirs, and groundwater levels. Hydrologic drought indicators lag significantly behind meteorological drought indicators.

Agricultural Drought: When precipitation deficits, soil water deficits, reduced groundwater, or reduced reservoir levels impact agricultural yields.

Socioeconomic Drought: When physical drought conditions impact the supply and demand of economic goods and services.

Location of Hazard

Inasmuch as drought classification is relative to average local precipitation, surface, and groundwater levels, all of Lincoln County is susceptible to drought.

Lincoln County Hazard Mitigation Plan Survey for Municipalities – Responses on Drought

Survey respondents were asked to identify areas in their municipality that are susceptible to drought, such as areas with prolonged shortages of water supply, and/or having effects on homeowners, crop or pastures losses, hydroelectric generators, and those with interests in the forest community. Survey respondents were also asked to list out possible specific actions for the County (as a whole) and the individual jurisdiction to undertake in areas susceptible to drought.

The table below is a summary of areas that could be impacted by drought and what specific mitigation actions can be taken. A complete copy of the survey responses received is enclosed in **Appendix B**.

SURVEY RESPONSES – DROUGHT NATURAL HAZARD		
Jurisdiction	Location of Hazard	Possible Actions
Countywide, including UTs	Countywide	<ul style="list-style-type: none"> Educate people Resources for local fire departments, community education w/ MFW, chipping program, clearing clutter with question of community involvement, additional including portable water, sources, priority

		<p>hydrant sites, new or updated town ordinances</p> <ul style="list-style-type: none"> • Provide a source of water for homes. • Provide water for dry wells, preserve wetlands and small streams. • Assist communities with helping homeowners with dry wells • Identify county and state resources available if needed • Increase water conservation efforts and use proactive drought planning • Emergency plans for notifying public of drought conditions and planning for water conservation. Contingency plans for sourcing water if needed. Education about what to do if your well runs dry/ safety. • Unsure of relevance to a community with multiple rivers & ponds • Backup solutions / access to water spigots when local private wells dry up. • Water use advisories / limitations • Educating the public on water conservation measures • Teach & practice water and power conservation in all educational settings from the youngest age • Plan for drinking water and fire fighting water sources. • Water conservation
Alna	None. N/A	Education
Boothbay	Many summer home rely on the public water supply.	Education. Conserve water and plant drought resistant plants.
Boothbay Harbor	Many summer home rely on the public water supply.	Conserve water and plant drought resistant plants.
Bremen	N/A	N/A
Bristol	Personal wells going dry - certain areas have a lot of iron in their water, some salt infiltration.	Public education (water conversation).
Damariscotta	The public water supply is Little Pond. The GSB water company provides hydrants within some of the Town. Some of the town has drinking water from GSB company. Farm on the old Phillips property on US Route One.	Provide water sources for residents, keep the Water Company working.
Dresden	Townwide. Undetermined.	N/A
Jefferson	Every part of town is at risk. Also question farm damage, loss of wells/potable water, sanitation, priority, hydrant spots in north part of	Grant/funding opportunities for FD, collaboration with MFW (they're local but not everyone may know) , community education, emergency

	county, town, ordinance updates, and revisions.	planning with possible public assistance. Identifying water sources during potential drought. Working with fire department in local departments on hydrant sources. Local education and collaboration
Monhegan Plantation	<p>Drought is a major concern due to our remoteness. Access to an alternative water supply during severe drought would be challenging. It becomes a public safety issue if our water supply is depleted.</p> <p>Locations of impact include:</p> <ul style="list-style-type: none"> - Bog Meadow Aquifer – Monhegan Plantation Water Department (public water supply serving majority of residences and businesses). - Ice Pond (water source for fire suppression). - Various dug wells inc. on Horn’s Hill Road, along the Bog Meadow Aquifer perimeter, & along Black Head Road (residences & water source for fire suppression). - Majority of home gardens & Community Garden (crop loss). - Monhegan Plantation Power District Power Station, Monhegan Museum, and residences and other utilities atop Lighthouse Hill where gravity feed public water supply is less effective for all uses, but esp. fire suppression needs. 	<p>Education about water conservation, emergency plans for dealing with drought conditions which include plans for securing alternative water supply to the island.</p> <ul style="list-style-type: none"> - Upgrade power system to be resilient and sustainable. - Identify alternative water sources & plan for access. - Install/upgrade pumps, well points, and water quality equipment to maximize efficiency of water system . - Evaluate water company operations and management of fee increases to ensure long-term financial stability. - Education and awareness programming, esp. among visitors re: water conservation. - Identify plausible dry hydrant locations that will remain functional in drought conditions, including saltwater sources (& shift Fire Dept. capabilities to make use of any new water sources). - Determine if use of grey water can be employed in any significant ways. - Retrofit Water Storage Tanks atop Lighthouse Hill to improve fire suppression options to nearby structures. - Explore and then educate community about practical water conservation measures working in other drought-prone areas of the world.
Newcastle	We have several pastures and farms in North Newcastle. Homeowners' wells may run dry.	N/A
Nobleboro	N/A	N/A
Somerville	N/A	Giving away water at the fire station
South Bristol	N/A	N/A
Southport	Many summer home rely on the public water supply.	Conserve water and plant drought resistant plants.
Waldoboro	<p>Waldoboro has a public water supply for the downtown area that is fed by wells located between Cross Street and Wagner Bridge Road. The rest of the community is fed by private wells.</p> <p>There are several large cow farms and agricultural fields that could be impacted by severe drought.</p>	N/A

Westport Island	N/A	N/A
Whitefield	Last 2 remaining dairy farms in lincoln county are in whitefield. I'm not sure how they experience drought, but it is a concern.	N/A
Wiscasset	Townwide. Small dead end roads and large areas.	N/A

Extent (Severity) of the Drought Hazard

The extent of a drought can vary from localized events in a specific watershed to a statewide occurrence; from short term (a single season) to long-term duration (several years – as was the case from 2001 to 2003); or from an abnormally dry spell to a drought of exceptional intensity.

The State of Maine uses the U.S. Drought Monitor's classification method to measure the extent of drought events as they occur.

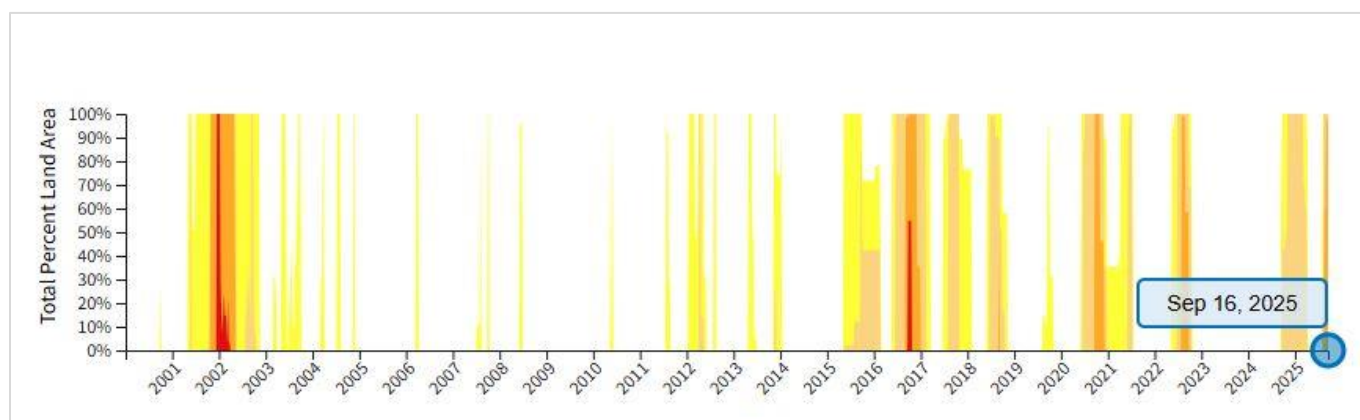
U.S. Drought Monitor Drought Classification						
Category & Description	Possible Impacts	PDSI	CPC Soil Moisture Model	USGS Weekly Streamflow	SPI	Objective Drought Indicator Blends
D0 Abnormally Dry	-Short term dryness slowing planting, growth of crops or pastures	01 to -1.9	21 to 30	21 to 30	-0.5 to -0.7	21 to 30
D1 Moderate Drought	-Some damage to crops, pastures -Streams, reservoirs, or wells low, some water shortages developing or imminent	-2 to -2.9	11 to 20	11 to 20	-0.8 to -1.2	11 to 20
D2 Severe Drought	-Crop/pasture losses likely -Water shortages common	-3 to -3.9	6 to 10	6 to 10	-1.3 to -1.5	6 to 10
D3 Extreme Drought	-Major crop/pasture losses	-4 to -4.9	3 to 5	3 to 5	-1.6 to -1.9	3 to 5

	-Widespread water shortages					
D4 Exceptional Drought	-Exceptional and widespread crop/pasture losses -Shortages of water creating emergencies	-5 or less	0 to 2	0 to 2	-2 or less	0 to 2

Source: U.S. Drought Monitor; MEMA

Previous Occurrences

Below is a chart from the U.S. Drought Monitor showing Lincoln County's drought conditions on a weekly basis dating from 2000 to present:



Source: U.S. Drought Monitor

The Maine Drought Task Force's¹ role is to facilitate communications and situational awareness of drought, develop and communicate a unified assessment of the situation, and provide recommendations on potential response to the Office of the Governor and other relevant organizations.

"The Task Force meets when abnormally dry conditions become elevated in Maine and Task Force Chairs from MEMA and U.S. Geological Survey (USGS) call for activation. Monthly meetings are organized by MEMA to share and organize drought monitoring data and identify action items to reduce the impacts of drought in Maine. These elements are provided in a concise report identifying observations from multiple affiliated agencies and organizations."

The current report, at the time of this Plan's final drafting, was issued by the State of Maine Drought Task Force on September 4, 2025. It indicates that an estimated 87% of Maine's

¹ <https://www.maine.gov/mema/hazards/drought-task-force>

population resides in drought-stricken regions, with the National Weather Service categorizing this as a flash drought, with persistent lack of rainfall through July and August leading to rapid expansion of impacted areas in Maine.

At the time of writing, 100% of Lincoln County's land area is located in a Severe Drought (D2) classification. The U.S. Drought Monitor² indicates:

- 34,457 people in Lincoln County are impacted by drought
- 2025 had the 11th driest August on record in Lincoln County over the past 131 years
- January – August 2025 is the 51st driest year on record in Lincoln County over the past 131 years
- 2,979 acres of hay (estimated) in Lincoln County is in a drought area (D1-D4)
- 1,041 acres of haylage (estimated) in Lincoln County is in a drought area (D1-D4)
- 1,193 sheep (estimated) are in a drought area in Lincoln County (D1-D4)
- 437 cattle (estimated) are in a drought area in Lincoln County (D1-D4).

Probability of Occurrence

While probability studies have not been performed for Lincoln County, as shown in the chart above from the U.S. Drought Monitor, Lincoln County has experienced drought conditions more frequently over the past several years.

Issues and Challenges

Since droughts do not receive presidential declarations, common drought mitigation activities, which include measures to increase efficiency and/or drilling wells deeper into the water table, are not eligible for funding through FEMA's Individual Assistance Program.

With nearly half of Maine's population relying on private wells for water supply, the State has limited capacity for managing individual water supply.

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² <https://www.drought.gov/states/maine/county/lincoln>

NATURAL HAZARDS VULNERABILITY ASSESSMENT

B2. Does the plan include a summary of the jurisdiction's vulnerability and the impacts on the community from the identified hazards? Does this summary address NFIP-insured structures that have been repetitively damaged by floods? (Requirement 44 CFR §201.6(c)(ii))

- *B2-a. Does the plan provide an overall summary of each jurisdiction's vulnerability to the identified hazards?*
- *B2-b. For each participating jurisdiction, does the plan describe the potential impacts of each of the identified hazards on each participating jurisdiction?*
- *B2-c. Does the plan address NFIP-insured structures within each jurisdiction that have been repetitively damaged by floods?*

This Section of **Element B: Risk Assessment** provides information on the jurisdictions' vulnerabilities to natural hazards profiled in the Natural Hazards Assessment.

Vulnerability of Lincoln County to Each Hazard

Flooding

Some of the County's most serious flooding has been in areas where there are residential and/or commercial structures including downtown district areas of Boothbay Harbor and the C1 Commercial District of Boothbay. With the exception of the aforementioned areas, most of the developed areas in Lincoln County are located outside of designated flood plains, and are thus not as vulnerable to flooding. However, many parts of the County are rural in nature, and are served by a network of rural roads that do not have proper storm drainage systems. These roads are vulnerable to flooding caused by heavy downpours and/or the blockage of drainage systems by ice or debris, even though these roads may not be in an identified FEMA floodplain.

Boothbay Harbor's Wastewater Treatment Plant and certain pump stations are at risk of potential impact and isolation within FEMA's 100-year coastal flood zone. In Bremen, properties on Medomak River, Biscay Pond, Pemaquid Pond, McCurda Pond, Route 32, and Muscongus Road are all susceptible to flooding. Somerville, while an inland community, has a number of gravel roads susceptible in varying degrees to overtopping and/or hillside ditch erosion, including some areas contributing to the siltation in Damariscotta and the Sheepscot Watershed.

Severe Winter Storms

Lincoln County's location in Northern New England places it in a high-risk area for winter storms. While the majority of winter storms in Lincoln County occur during the winter season of December through March, there are occasional winter storms in the late fall (November and early December) and in the spring (March – April). The severity of storms is

typically most serious in January and February, with storms in the earlier and later parts of the seasons usually being of lesser magnitudes.

The time of day at which storms occur is also important, as overnight storms allow for the closure of schools and businesses, whereas storms during the day force people to travel home during storm conditions. Based on experience, storms are most likely to occur overnight or during the morning, but afternoon storms are still somewhat likely.

A major ice storm of the severity that occurred in 1998 would impact nearly all of Lincoln County and threaten the overhead electric and telephone lines. Roads may be closed due to wash outs and debris in roads from trees and utility lines. The pair of coastal storms that impacted Lincoln County in January 2024 caused damage to almost all coastal communities.

As noted earlier in this Assessment, Lincoln County has been included in several Presidential Disaster Declarations for winter storms. Lincoln County contains at-risk populations that could be impacted by a major winter storm.

Monhegan, South Bristol, Bremen, Bristol, Waldoboro, and Westport Island have identified their municipalities as being susceptible to power outages and other impacts from severe winter storms given their dense tree cover and tree-lined roads.

Severe Summer Storms

The entirety of Lincoln County is vulnerable to thunderstorms, microbursts, and high winds, especially from the very high winds that often accompany severe coastal summer storms. Heavy rains that often accompany such storms can erode vulnerable shoreland areas.

In Alna, Rabbit Path, Route 194, Route 218, and Cross Road (at the hydrant) are susceptible to summer storm impacts. Power outages in Bristol are particularly common along Pemaquid Harbor Road, the south side of Round Pond, Old County Road, Chamberlin and Long Cove Point, Pemaquid Point, Benner/Fogler Roads, Carl Bailey Road, Southside Road in New Harbor, and Pemaquid Trail. South Bristol is vulnerable to trees blocking roads and taking down power lines during a severe summer storm. Most roads, if not all, in Waldoboro could be impacted to debris from heavy winds and lightning strikes.

Wildfires

Lincoln County is heavily forested, and is vulnerable to wildfires. However, all of the organized municipalities in Lincoln County are served by capable fire departments. The Maine Forest Service has been very active in forest fire prevention activities and, through meetings convened by the Lincoln County Emergency Management Agency, meets periodically with municipal fire chiefs on matters related to wildfire prevention and response activities. Of concern is the lack of mapping on a County-scale of fire lanes and assessment of vehicle capacity for such lanes (especially in instances of mutual aid being required). It may be difficult to get emergency vehicles back out of rural/heavily forested areas following a forest fire.

Camp roads in Damariscotta, Schmid Preserve in Edgecomb, the 350-acre private land trust bordering Monhegan Village, and the south end of Westport Island were previously identified as areas being susceptible to wildfires.

Drought

Lincoln County is vulnerable to drought and has experienced drought conditions more frequently over the past decade. Drought conditions can affect the agricultural industry as well as residential property owners serviced by private wells.

Shallow wells in Bristol are vulnerable in times of drought, especially in denser-populated villages, which often have older, shallow wells. Westport Island is also susceptible to their water supply running dry or experiencing salt-water intrusion. Monhegan has identified both Bog Meadow Aquifer (public water supply) and Ice Pond (water source for fires) as areas especially susceptible to drought. Somerville noted they have numerous farms of various types, including agricultural, livestock, and marijuana, that may be impacted by long-term drought conditions.

Impacts of Each Hazard on Lincoln County

Flooding

In addition to damages to residential and commercial structures in some locations, the typical damages resulting from flooding in Lincoln County include damages to roads and their respective drainage systems. Historically, flood damages have included partial or complete road washouts, as well as severe erosion of roadside ditches, resulting in hazards to motorists if their vehicles go off the road. See also discussion of dam breach in the **Flooding Hazard Profile**, beginning on Page 33.

Severe Winter Storms

The impacts of severe winter storms include road closures (and the subsequent inability of emergency vehicles to provide help), the loss of power for extended periods of time, high costs to local governments for snow removal/ice treatment efforts, and loss of income to businesses and individuals due to business closures.

Severe Summer Storms

The damages from severe summer storms typically involve the washout of roads, downed utility lines, and debris clean up. If severe enough, this can result in the loss of income to businesses and individuals due to business closures.

Wildfires

The primary impacts include damages to homes located in the wildland-urban interface and loss of valuable timberland. A larger percentage of homes in rural towns are located in the wildland-urban interface than homes in village areas.

Drought

Drought conditions cause loss of agricultural crops and can cause drinking water shortages for residents serviced by a private well, which is a large portion of Lincoln County residents.

Repetitive Loss Properties

Based on information obtained from the Federal Emergency Management Agency (FEMA), there are a number of repetitive loss properties in Lincoln County, as shown in the table below. In accordance with the Federal Privacy Act, the addresses, owner names, or claim information of these repetitive loss properties are not disclosed.

FEMA Definition of Repetitive Loss Property: A repetitive loss property is a structure covered by a contract for flood insurance made available under the NFIP that:

- (a) Has incurred flood-related damage on two occasions, in which the cost of the repair, on the average, equaled or exceeded 25% of the market value of the structure at the time of each such flood event; and
- (b) At the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance coverage.

Lincoln County Repetitive Loss Properties				
<i>Source: State NFIP Coordinator, 09/25/2025</i>				
Residential Structures			Non-Residential Structures	
Town/City	No. of Properties	No. of Losses	No. of Properties	No. of Losses
Boothbay	1	2	1	2
South Bristol	-	-	1	2
Southport	1	2	-	-
TOTAL	2	4	2	4

The State National Flood Insurance Program (NFIP) Coordinator confirmed there are 354 flood insurance policies in Lincoln County. Total coverage for these policies is \$98,909,000, with a total premium of \$465,088. One-hundred claims have been made since 1978, totaling \$1,062,273.

Assessing Vulnerability: Identifying Structures

The Hazard Mitigation Plan identifies existing buildings, infrastructure, and critical facilities located within Lincoln County and the hazards to which these facilities are susceptible.

A ‘critical facility’ is defined as a facility in either the public or private sector that provides essential products and services to the public, is otherwise necessary to preserve the welfare and quality of life in the County, or fulfills important public safety, emergency response, and/or disaster recovery functions.

The critical facilities identified in Lincoln County are municipal offices, fire and police stations, post offices, town garages and sand/salt sheds, hospitals and clinics; electric and communication utilities; water and wastewater treatment facilities; hazardous materials sites; and schools that have been identified as shelters.

In 2015, the Lincoln County Emergency Management Agency used existing Maine GIS map data and a handheld GPS data collector to map and locate the County’s critical facilities and determine which are most likely to be affected by hazards. The hazards most likely to affect the County are flooding, severe summer storms, severe winter storm, wildfires, and drought - as summarized below and on the following pages.

Maine Infrastructure Rebuilding and Resilience Commission: A Plan for Infrastructure Resilience

In May 2024 Governor Mills established the Commission on Infrastructure Rebuilding and Resilience by Executive Order, following a record nine (9) natural disasters between March 2022 and May 2024, each severe enough to merit Presidential disaster declarations.

The Commission was charged with developing a plan to reduce the risk of damage from extreme storms and floods, and actions to improve Maine’s ability to respond and recover when the next disaster hits.

Profiled in more detail on the following page, the Commission’s final product, an Infrastructure Resilience Plan, enclosed in **Appendix D**, provides strategies and actions that strengthen infrastructure and reduce disaster risks; improve disaster preparedness, response, and recovery; and sustain Maine’s momentum through strategic investments.

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Spotlight: Maine Infrastructure Rebuilding and Resilience Commission

A PLAN FOR INFRASTRUCTURE RESILIENCE

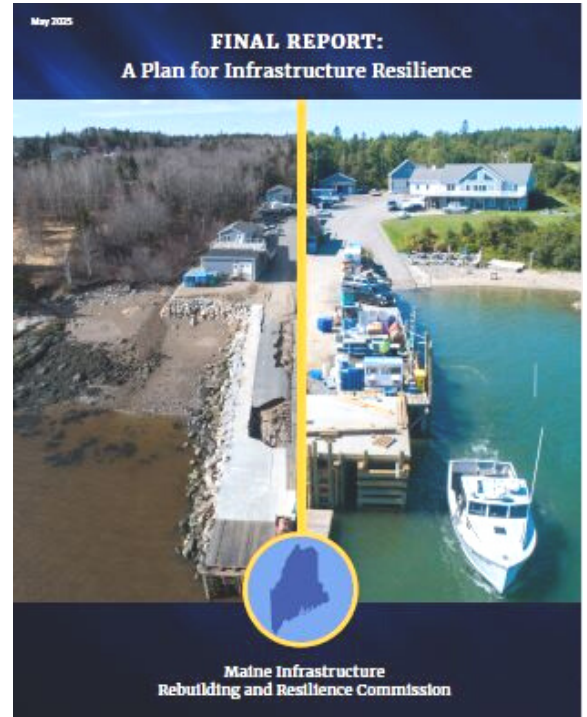


The State's Infrastructure Plan is organized into three pillars, each supported by a series of strategies and actions.

- Strengthen Infrastructure and Reduce Disaster Risk
- Improve Disaster Preparedness, Response, and Rebuilding
- Sustain Maine's Momentum through Strategic Investments.

The Plan will be implemented through cooperation among state agencies; local, county, and tribal governments; the nonprofit and philanthropic sector; the private sector; Maine's institutions of higher education and continuing education; and the public.

The Commission's work resulted in LD 1 "An Act to Increase Storm Preparedness for Maine's Communities, Homes and Infrastructure" implements several of the Commission's key recommendations by providing funding for home resiliency improvements, emergency communication and disaster recovery, and community flood risk management.



Vulnerability of Existing Buildings, Infrastructure, and Critical Facilities

This subsection of **Element B: Risk Assessment** assesses the vulnerability of existing infrastructure to each natural hazard profiled within this Plan.

Flooding

One hospital and five bridges are located in the 100-year flood areas. The most likely flooding will come from coastal flooding occurring during a severe coastal storm or a Category 1 Hurricane.

Buildings: Some of the County's most serious flooding has been in areas where there are residential and/or commercial structures including the downtown areas of Boothbay Harbor and the C-1 District of Boothbay.

Infrastructure: Roads and their associated storm drainage systems are the most vulnerable category of infrastructure.

Many parts of the County are rural in nature and served by a network of rural roads that do not have proper storm drainage systems. These roads are susceptible to flooding caused by heavy downpours and/or the blockage of drainage systems by ice or debris. A major coastal storm could affect the downtown roadways in Boothbay and Boothbay Harbor, plus five major bridges.

Critical Facilities: The hospital in Damariscotta is vulnerable to a major coastal storm event or a summer storm event with heavy rainfall.

Severe Winter Storms

Buildings: All buildings in Lincoln County are vulnerable to winter storms. Damages can include burst water pipes during power outages, interior water damages due to ice dams forming on roofs, and occasionally, roof collapses due to increased load from snow.

Infrastructure: A nor'easter, blizzard, or ice storm of the severity that occurs at least once every 3-5 years would have an impact on all roads in Lincoln County and on all overhead electrical power and telephone lines. Roads may be covered in snow, washed out, or blocked with tree debris. Utility lines and poles will be felled.

Critical Facilities: No critical facilities were identified as being in danger from a severe winter storm.

Severe Summer Storms

Buildings: All buildings in Lincoln County are vulnerable to severe summer storms. Damages can result from debris like tree limbs, and from high winds and interior water damages due to wind-driven rain.

Infrastructure: Roads and their associated storm drainage systems (or lack thereof) are the most vulnerable category of infrastructure. They can become temporarily blocked due to heavy rain and debris over a short period. A Category 1 hurricane could have an impact on all roads in the County and on all overhead electrical power and telephone lines. Roads may be blocked with tree and utility line debris. Utility lines and poles may be felled.

Critical Facilities: All critical facilities in Lincoln County are vulnerable to summer storms in the same manner that individual buildings are vulnerable. However, some of the critical facilities throughout the County have back-up generator systems, which allow building systems to continue operating during a power outage.

Wildfires

Buildings: Forest fires would have a tremendous impact on the large number of homes located in the wildland-urban interface. An estimated 33% of the homes in Lincoln County are located in the wildland-urban interface.

Infrastructure: Power, phone, and cable lines can be damaged during a wildfire. Roads and their storm drainage systems are much less vulnerable, although road access to certain areas can be blocked by fires and by emergency fire-fighting vehicles.

Critical Facilities: Wildfires in Lincoln County have tended to be relatively small, and have not been a threat to critical facilities. In the event of a very large wildfire, some critical facilities could be damaged by fire and smoke.

Drought

Buildings: No buildings were identified as being in danger from a drought.

Infrastructure: Residential private wells are vulnerable to drought as the water supply may be low and/or depleted during drought conditions. The majority of Lincoln County residents are served by a private water supply.

Critical Facilities: No critical facilities were identified as being vulnerable to drought.

The table on the following page identifies the type and number of critical facilities in each town in Lincoln County.

Town	Municipal Office	Fire Station	Police Station	Post Office	Public Works	Water Treatment & Storage	Waste-water Treatment	Library	Schools	Comm. Tower	Hospital/ Clinic	Airport
Alna	1	1	0	1	1	0	0	0	1	0	0	0
Boothbay	1	2	0	2	2	1	0	0	0	1	0	0
Boothbay Harbor	1	1	1	2	1	2	1	1	2	1	1	0
Bremen	1	1	0	1	1	0	0	1	0	0	0	0
Bristol	1	3	0	4	1	0	0	1	1	1	0	0
Damariscotta	1	1	1	1	1	3	1	1	2	1	1	0
Dresden	1	2	0	1	2	1	0	1	1	3	0	0
Edgecomb	1	1	0	1	0	0	0	0	1	0	0	0
Jefferson	1	2	0	1	1	0	0	1	1	1	0	0
Monhegan Island Plantation	1	1	0	1	0	4	0	1	1	1	0	0
Newcastle	2	2	0	1	0	1	0	0	1	1	0	0
Nobleboro	1	2	0	1	1	0	0	0	1	1	0	0
Somerville	1	1	0	0	2	0	0	0	1	0	0	0
South Bristol	2	2	0	2	1	0	0	1	1	0	0	0
Southport	1	2	0	1	1	1	0	1	1	0	0	0
Waldoboro	1	1	1	1	3	5	1	1	4	2	2	0
Westport Island	2	1	0	0	0	0	0	0	0	0	0	0
Whitefield	1	3	0	2	1	0	0	0	1	0	1	0
Wiscasset	1	1	1	1	1	1	1	1	3	2	0	1
Total	22	29	4	23	20	15	4	11	23	12	4	1

Historic Features

The Maine Historic Preservation Commission identifies short-term and long-term recommendations for including historic features in hazard mitigation. The National Park Service has issued Guidelines for Flood Adaptation for Rehabilitation of Historic Buildings¹, designed to provide information on adapting historic buildings to be more resilient to flooding while preserving their historic character. Longer-term goals involve mitigation planning around climate change and sea level rise as outlined in Maine's Statewide Historic Preservation Plan².

Vulnerability of Future Buildings, Infrastructure, and Critical Facilities

Assessing where future development will occur in the towns of Lincoln County is difficult due to a lack of municipal data, policies, and programs. Most of the Lincoln County

¹ <https://www.nps.gov/articles/000/guidelines-on-flood-adaptation-for-rehabilitating-historic-buildings.htm>

² <https://www.maine.gov/mhpc/about-us/state-preservation-plan>

communities are small and rural and do not have planning departments, building codes, or a fulltime code enforcement officer (CEO).

As documented more fully in **Element C: Mitigation Strategy**, there are a number of local ordinances that can reduce vulnerability of future buildings, infrastructure, and critical facilities to the natural hazards profiled in this Plan update. Most municipalities have a comprehensive plan, and all have a floodplain management ordinance. All have shoreland zoning ordinances, subdivision regulations, and land use ordinances.

The Maine Department of Administrative and Financial Services State Economist Demographic Projections³ projects population growth in Lincoln County to grow by 0.5% between 2022 and 2027, and then decline by 0.6% between 2027 -2032, for an overall decline in population of 0.1% between 2022 – 2032.

Given the minimal rate of population growth by 2027, and an overall minimal decline by 2032, it is anticipated that any future proposed buildings, infrastructure, or critical facilities may reduce their vulnerability to the profiled natural hazards given changes to building codes and/or land use ordinances, along with the advancement of construction technology and practices. In this assessment, we refer to vulnerabilities for all participating jurisdictions unless otherwise noted.

Flooding

Buildings: with the notable exception of the coastal communities of Boothbay, Boothbay Harbor, Bristol, and Monhegan, the majority of damages from flooding in Lincoln County are to roads rather than structures. All towns have floodplain management ordinances that provides some control over development in flood zones, include meeting FEMA standards for new or substantially improved construction.

Infrastructure: Future roads and their associated storm drainage systems would seem to be the most likely category for infrastructure that would be vulnerable to flooding. Maine Department of Transportation (MDOT) has adopted construction standards for roadwork in flood zones that adopt the State’s ‘prepare to manage’ and ‘commit to manage’ sea level rise scenarios.

Critical Facilities: Because of requirements and greater awareness of flooding in all communities, future critical facilities may continue to be located outside floodplain areas. The exception may be wastewater treatment plants, due to the critical need to locate the facilities at lower elevations.

³ <https://www.maine.gov/dafs/economist/demographic-projections>

Severe Winter Storms

Buildings: Future buildings in Lincoln County should be less vulnerable to winter storms. Damages may include burst water pipes although newer buildings may be better insulated than older ones, thus being better able to retain heat during longer periods of time when a power outage occurs. There will be less interior water damage due to ice dams forming on roofs because the roofs of newer buildings generally are properly vented, which allows the roofs to remain cold. Roof collapses due to heavy snow loads will be less frequent inasmuch as newer roofs are designed to withstand heavy snow loads. It is unlikely a severe winter storm will have an impact on future structures. This hazard primarily impacts local roads and overhead utility lines.

Infrastructure: Roads will continue to be the most vulnerable category of infrastructure. New roads can be just as easily blocked on a temporary basis due to heavy snowfall, ice building up on the road surface, and debris such as tree limbs accumulating on the road surface during a storm event. However, in the present economy, it is unlikely Lincoln County will experience a significant increase in new road construction, with the possible exception of small road segments serving subdivisions.

Critical Facilities: Future critical facilities in Lincoln County will be vulnerable to winter storms in the same manner that individual buildings will be vulnerable. However, some of them may have back-up generator systems, which will allow heating systems to continue operating during a power outage.

Severe Summer Storms

Buildings: New buildings in Lincoln County may be less vulnerable to summer storms because they are built to meet modern building code and FEMA requirements (where applicable). State-mandated shoreland zone regulations for areas within 250 feet of the shoreline of the coast, lakes and ponds, and within 75 feet of streams, limit the location of new buildings in areas prone to coastal erosion and storm surges, which often result from severe summer storm events. Damages may include roof damage from falling trees and debris. There will be less interior water damage due to wind-driven heavy rains and because roofs of newer buildings generally are properly designed and roofing materials are more resistant to water infiltration and designed to sustain wind conditions.

Infrastructure: Roads will continue to be the most vulnerable category of infrastructure. New roads can be blocked on a temporary basis due to heavy rainfall, and debris such as tree limbs accumulating on the road surface during a storm event.

Critical Facilities: Future critical facilities in Lincoln County will be vulnerable to summer storms in the same manner individual buildings will be vulnerable. However, some of them may have back-up generator systems, which will allow building systems to continue operating during a power outage.

Wildfires

Buildings: Wildfires in Lincoln County towns primarily threaten residential structures in the wildland-urban interface. In all Lincoln County communities, homes are allowed to be built in most land use zones. Some communities may decide to provide wildfire protection information to new residents who wish to build new homes at the time they are issued a land use/building permit.

Infrastructure: Future power, phone, and cable lines can be damaged during a wildfire, although the level of future development is expected to be minimal, primarily because of the low growth rate projected for the County.

Critical Facilities: Future critical facilities may be vulnerable to a very large wildfire. However, the expectation is that there will be very few new critical facilities constructed during the life of this Plan.

Drought

Buildings: Vulnerabilities of future buildings to a drought are minimal.

Infrastructure: Future development relying on private wells for water supply are at risk for drought.

Critical Facilities: Vulnerabilities of future critical facilities to a drought are minimal, unless the facility is not connected to a public water supply.

Vulnerabilities to Lincoln County Residents and Businesses

The Lincoln County Social Resilience Project⁴ began in September 2023 and ran through December 2024. Its purpose was to strengthen social infrastructure, the connections between community members and partners in key sectors involved in preparing for, responding to, and recovering from emergencies.

Building on the earlier Social Resilience Project in Southern Midcoast Maine, the Lincoln County SRP engaged service providers and community members to learn how they were impacted by the winter storms of 2023-2024 and to identify the challenges and opportunities presented by these storms.

Led by the Lincoln County Regional Planning Commission, Maine Sea Grant, Bowdoin College, Blue Sky Planning Solutions, and Resilient Communities, the project collaborated with service providers from across Lincoln County, including Lincoln County Emergency Management Agency, Lincoln County Sheriff's Office, Maine Coast Fishermen's Association,

⁴ <https://seagrant.umaine.edu/focus-areas/communities-and-economies/the-social-resilience-project/lincoln-county-social-resilience-project/>

Midcoast Community Action, Midcoast Conservancy, Town of Newcastle, Waldoboro Business Association, and Central Lincoln County YMCA Community Navigation Program.

In the Lincoln County Social Resilience Project, focus groups, interviews, and community outreach events were used to hear directly from service providers and the community members they serve. Meeting the needs of community members requires understanding the specific challenges that extreme storm events present. By providing opportunities for local partners to identify opportunities for cross-sector collaborations, communities can build upon existing strengths in the region to identify actions for addressing the impacts of extreme storm events.

The Final Report, enclosed in **Appendix E**, summarizes the impacts, themes, gaps, resources, opportunities, and actions that emerged from Lincoln County Social Resilience Project, and the final report provides the detailed summaries of each of the phases of the project. Below is the identified Actions by Sectoral Role Chart for the ten (10) actions identified at the Community Leaders' Workshop held in December 2024.

STRATEGY	ACTION ITEM	SECTOR LEAD
1. Develop and Expand Volunteer Network and Training Resources	1A. Train volunteers in mitigation, preparedness, and planning, providing CEUs.	Emergency Management
	1B. Establish emergency roles and responsibilities for volunteers in advance.	Emergency Management
	1C. Mobilize and coordinate volunteers for tasks like food distribution, outreach, and storm response.	Social Services
	1D. Activate volunteer trail crews for clearing debris from roads and driveways.	Conservation
	1E. Designate volunteers to serve as on the ground condition spotters who pass along observations to service providers.	Business
	1F. Need for increased availability and participation in training programs for the trades to increase the regional network of tradespeople.	Business
	1G. Partner with contractors through service agreements to ensure transportation and road clearance solutions are available.	Municipalities
2. Develop a Diversified, Centralized Communication System	2A. Build and manage a centralized, multimodal communication system for emergency updates.	Emergency Management
	2B. Use public radio for disseminating information on resources at specific times during emergencies.	Emergency Management
	2C. Distribute communication materials and updates to underserved populations through their networks.	Social Services
	2D. Chamber role in communications and info sharing with businesses – newsletter, social media topic pages for storm response and relief.	Business

	2E. Businesses indicated that Central Maine Power is very good at keeping information up to date and they work hard to respond.	Business
	2F. Chambers of Commerce could help to get information out about recovery successes to reassure visitors and keep visitors coming back to Maine.	Business
	2G. Create or activate local alert systems, such as call trees and neighbor-to-neighbor phone networks.	Municipalities
3. Know and Support Vulnerable Community Members	3A. Map community blocks and create an inventory of at-risk individuals for wellness checks.	Emergency Management
	3B. Collaborate with local fire departments and Central Maine Power to support individuals dependent on medical devices during outages.	Emergency Management
	3C. Provide information as part of first response.	Emergency Management
	3D. Connect vulnerable residents to emergency food resources, shelters, and essential supplies.	Social Services
	3E. Note the unique needs of natural resource industry businesses, their employees and families – fishing and working waterfront-dependent businesses in particular.	Business
	3F. Use police and town departments' morning call-in lists to check on vulnerable residents.	Municipalities
	3G. Promote and redistribute Red/Green window display cards for easy emergency status identification.	Municipalities
4. Education on Storm Preparedness During Non-Emergencies	4A. Partners with schools to teach children about preparing their homes for power outages.	Emergency Management
	4B. Provide public education on safety and maintenance of alternative heat sources like wood stoves.	Emergency Management
	4C. Host educational workshops on emergency preparedness and distribute storm preparation materials.	Social Services
	4D. Develop questionnaires at town offices to gather information about household preparedness (e.g., backup heat sources, power prioritization needs).	Municipalities
5. Expand Backup Generator and Battery Lending Programs	5A. Support pilot programs like Alna's LifePO4 battery lending initiative for food-vulnerable residents.	Emergency Management
	5B. Act as distribution hubs for backup batteries and generators to residents in need.	Social Services
	5C. Install battery storage paired with solar installations at facilities like Coastal Rivers Conservation Trust to provide community resources.	Conservation
	5D. Create and maintain lists of households with backup generators.	Municipalities
6. Promote, Expand, and	6A. Promote existing facilities as warming shelters and provide food and other support during emergencies.	Social Services

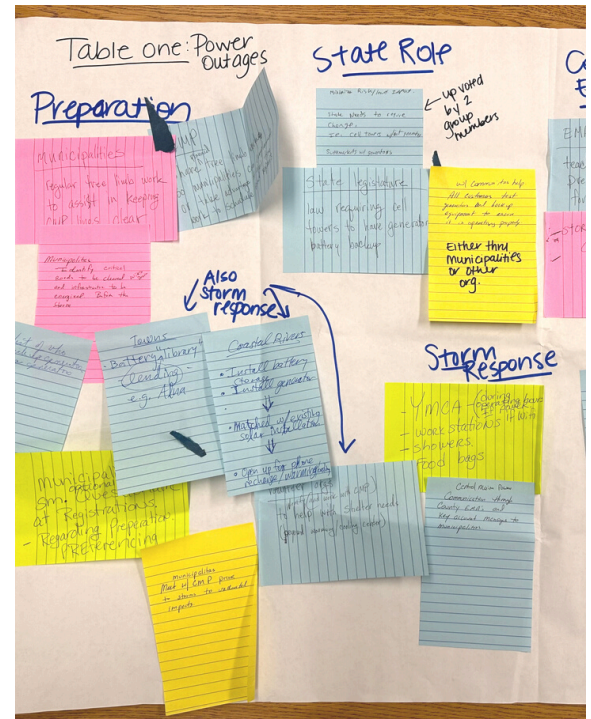
Embrace Warming Shelters	6B. Use facilities like those managed by conservation trusts as shelters for phone recharging, warming, or cooling.	Conservation
	6C. Work in conjunction with social services agencies and with Central Maine Power to identify optimal shelter locations near three-phase power and away from the ends of circuits.	Municipalities
7. Expand Neighbor-to-Nighbor Support Networks	7A. Promote campaigns like <i>Know Your Neighbors</i> to strengthen local networks.	Emergency Management
	7B. Facilitate neighbor-to-neighbor support by encouraging community collaboration through their programs.	Social Services
	7C. Develop local neighborhood-level emergency plans through Homeowners Associations' or by street.	Municipalities
8. Develop Strategies for Long-Term Recovery	8A. Provide ongoing food and material support to residents recovering from storm impacts.	Social Services
	8B. Need to increase the network of tradespeople in the region to work in recovery and rebuilding.	Business
	8C. Secure long-term grants for recovery projects in collaboration with Lincoln County Regional Planning Commission.	Municipalities
	8D. Advocate for local emergency funds to address time-sensitive recovery needs.	Municipalities
	8E. House external contractors in local community centers or summer camps during recovery periods.	Municipalities
9. Identify and Expand Local Resources	9A. Centralize information about local assets, including tractors, chainsaws, and generators.	Emergency Management
	9B. Act as hubs for resource distribution, ensuring community members have access to food and essential supplies.	Social Services
	9C. Partner with civic groups to identify and track local resources, like food pantries and emergency shelters.	Municipalities
10. Expand Food Sharing Tables and Community Refrigerators	10A. Facilitate the expansion of community refrigerators and food sharing tables.	Emergency Management
	10B. Provide and manage food-sharing programs, including refrigerators and emergency food boxes.	Social Services
	10C. Support initiatives like Veggies to Table, which supply fresh produce to community food-sharing programs.	Conservation
	10D. Access community grants to expand food-sharing tables and refrigerators in areas prone to flooding or food insecurity.	Municipalities

Spotlight: Lincoln County Social Resilience Project



Through the Social Resilience Project, Lincoln County learned about the critical concerns, opportunities, and challenges shared by participants in the focus groups, interviews, and at the Community Dinner.

- Power outages are a critical challenge.
- Food insecurity can be exacerbated by extreme storm events.
- Communication gaps can limit the ability to prepare for and recover from storms.
- Community members face challenges accessing support resources.
- Extreme storms impact physical and mental health and safety.
- Economic and educational disruptions have short and long-term impacts.
- Physical infrastructure damage requires long-term economic recovery.
- Isolation of community members heightens vulnerabilities.
- Community support networks and cross-sector collaborations are essential.



Assessing Vulnerability: Estimating Potential Losses

The Hazard Mitigation Planning Team used historical data to estimate the potential dollar losses if Lincoln County were to experience flooding, severe winter storms, severe summer storms, wildfires, or drought – the most likely natural hazards to occur in Lincoln County. The results of these estimates are provided on the following pages of this Plan Update.

Overview

This section of **Element B: Risk Assessment** relies on historical damages as the basis for estimating future losses, subject to the following:

- Historical damage estimates have been updated using the Consumer Price Index (shown below);
- Presidential Disaster Declarations have been used where possible, updated for inflation using the Consumer Price Index;
- Where statewide or county damages are used to determine damages for a specific jurisdiction, the damages are using the 2020 Decennial Census and the 2024 Consumer Price Index.

The average annual Consumer Price Index for various years is shown below based on a value of 100 for the years 1982-1984.

Consumer Price Index 1982-1984 = 100		
1947 = 22.3	1993 = 144.5	2008 = 215.3
1954 = 26.9	1994 = 148.2	2009 = 214.5
1980 = 82.4	1995 = 152.4	2010 = 218.1
1981 = 90.9	1996 = 156.9	2011 = 224.9
1982 = 96.5	1997 = 160.5	2012 = 229.6
1983 = 99.6	1998 = 163.0	2013 = 233.0
1984 = 103.9	1999 = 166.6	2014 = 236.7
1985 = 107.6	2000 = 172.2	2015 = 237.0
1986 = 109.6	2001 = 177.1	2016 = 240.0
1987 = 113.6	2002 = 179.9	2017 = 245.1
1988 = 118.3	2003 = 184.0	2018 = 251.1
1989 = 124.0	2004 = 188.9	2019 = 255.6
1990 = 130.7	2005 = 195.3	2020 = 258.8
1991 = 136.2	2006 = 201.6	2021 = 271.0
1992 = 140.3	2007 = 207.3	2022 = 292.7
		2023 = 304.7
		2024 = 313.7
		2025 = 322.3

Flooding

This Plan uses worst-case, real-life damages to calculate potential flood losses, and assumes historic patterns will hold for the future. The worst-case flood is the January 9-13, 2024 back-to-back flooding events, which resulted in a Presidential Disaster Declaration of over \$50

million in damages to eight (8) counties. Using the Consumer Price Index (CPI), the damages in 2025 dollars would be about \$51,973,011. Damages in Lincoln County totaled \$3,156,284.92, which would be about \$3,242,813 in 2025 dollars.

The methodology for calculating potential losses in Lincoln County is to assume the greater of:

1. Actual damages from the January 9-13, 2024 storms, updated using the Consumer Price Index (column B in the below table).
2. Actual damages from the flooding other than the January 9-13, 2024 storms, updated using CPI, when they are greater than the updated damages from the January storms (Column C).
3. Flood losses based on \$69.82 per capita (Column D). The \$69.82 is calculated by taking the population of the counties that suffered damages in the January storms and dividing it into the total damages in 2025 dollars. Each town's population (2020 Decennial Census) is multiplied by \$69.82 to get potential damages.
4. The maximum flood loss (column E) is the greater of the columns B, C, or D.

Potential Flood Losses in Lincoln County					
Municipality	Column A: Actual Jan 9-13, 2024 Losses (2024 dollars)	Column B: Updated Jan 9- 13, 2024 Losses (2025 dollars using CPI)	Column C: Other Flood Losses, Updated to 2025 dollars using CPI, when higher than Jan 2024 losses)	Column D: Flood Losses Based on \$69.82 per capita	Column E: Maximum Potential Flood Losses (the greater of columns B, C, or D)
Alna	---	---	\$49,754.34	\$49,572.20	\$49,754.34
Boothbay	\$914,864.44	\$939,945.20	---	\$209,669.46	\$939,945.20
Boothbay Harbor	\$38,636.92	\$39,696.14	\$114,460.81	\$141,525.14	\$141,525.14
Bremen	---	---	\$51,261.71	\$57,461.86	\$57,461.86
Bristol	\$724,734.60	\$744,603.00	---	\$197,869.88	\$744,603.00
Damariscotta	---	---	\$59,693.13	\$160,376.54	\$160,376.54
Dresden	---	---	\$53,413.49	\$120,439.50	\$120,439.50
Edgecomb	---	---	\$153,777.37	\$82,946.16	\$53,777.37
Hibbert's Gore (UT)	---	---	---	\$69.82	\$69.82
Jefferson	---	---	\$767,515.62	\$178,110.82	\$767,515.62
Louds Island and Lincoln County Islands (UTs)	---	---	---	\$209.46	\$209.46
Monhegan Island Plantation	\$741,188.00	\$761,507.47	---	\$4,468.48	\$761,507.47
Newcastle	\$10,130.18	\$10,407.90	\$277,033.41	\$129,027.36	\$277,033.41
Nobleboro	---	---	\$28,280.96	\$125,047.62	\$125,047.62
Somerville	---	---	\$128,654.76	\$41,892.00	\$128,654.76

South Bristol	\$217,747.54	\$223,717.03	---	\$78,687.14	\$223,717.03
Southport	\$244,440.00	\$251,141.25	---	\$43,428.04	\$251,141.25
Waldoboro	---	---	\$202,927.74	\$359,852.28	\$359,852.28
Westport Island	\$213,174.35	\$219,018.47	---	\$50,200.58	\$219,018.47
Whitefield	---	---	\$85,735.22	\$168,126.56	\$168,126.56
Wiscasset	\$46,669.80	\$47,949.24	\$83,726.83	\$261,266.44	\$261,266.44
TOTAL	\$3,156,284.92	\$3,242,813.60	\$2,002,821.90	\$2,460,247.34	\$5,811,043.14

Severe Winter Storms

This Plan Update uses worst-case, real-life damages to calculate potential winter storm damages, and assumes that historical patterns will hold for the future. For Lincoln County, the worst storm is the Ice Storm of 1998, which resulted in a statewide Presidential Disaster Declaration of \$47,748,466. The actual damages were closer to \$100,000,000 because the Disaster Declaration did not cover damages to power lines and private structures.

Using the Consumer Price Index, the \$47.7 million in damages would be \$94,413,071 in 2025 dollars. The 1998 damages in Lincoln County totaled \$292,000 (far less than some interior counties), which would be \$435,006 in 2025 dollars.

The methodology for calculating potential losses in Lincoln County is to assume the greater of:

1. Actual damages using the Consumer Price Index (Column B);
2. Winter storm losses based on \$69.30 per capita (Column C). The \$69.30 is calculated taking the population of the State (1,362,359) and dividing it into the total 1990 ice storm damages in 2025 dollars (\$94.4 million) to get a per capita cost of \$69.30. Each town's population is multiplied by \$69.30 to get potential damages.
3. The maximum winter storm loss (Column D) is the greater of Column B or C.

Potential Winter Storm Losses in Lincoln County				
Municipality	Column A: Actual 1998 Ice Storm Damages	Column B: Updated Ice Storm Losses Using 2025 CPI	Column C: Storm Losses Based on \$69.30 per capita	Column D: Maximum Potential Winter Storm Loss
Alna	\$3,135	\$6,198.83	\$49,203	\$49,203
Boothbay	\$24,610	\$48,661.37	\$208,107.90	\$208,107.90
Boothbay Harbor	\$10,473	\$20,708.27	\$140,471.10	\$140,471.10
Bremen	\$1,942	\$3,839.72	\$57,033.90	\$57,033.90
Bristol	\$5,593	\$11,059.04	\$196,396.20	\$196,396.20
Damariscotta	\$8,969	\$17,734.41	\$159,182.10	\$159,182.10
Dresden	\$30,449	\$60,206.82	\$119,542.50	\$119,542.50
Edgecomb	\$26,858	\$53,106.34	\$82,328.40	\$82,328.40
Hibbert's Gore (UT)	---	---	\$69.30	\$69.30
Jefferson	\$14,286	\$20,447.38	\$176,784.30	\$176,784.30

Louds Island and Lincoln County Islands (UTs)	---	---	\$207.90	\$207.90
Monhegan Island Plantation	\$0.00	\$0.00	\$4,435.20	\$4,435.20
Newcastle	\$1,370	\$2,708.90	\$128,066.40	\$128,066.40
Nobleboro	\$5,948	\$11,760.98	\$124,116.30	\$124,116.30
Somerville	\$29,579	\$58,486.57	\$41,580	\$58,486.57
South Bristol	\$0.00	\$0.00	\$78,101.10	\$78,101.10
Southport	\$0.00	\$0.00	\$43,104.60	\$43,104.60
Waldoboro	\$48,113	\$95,133.86	\$357,172.20	\$357,172.20
Westport Island	\$4,933	\$7,060.55	\$49,826.70	\$49,826.70
Whitefield	\$61,607	\$121,815.56	\$166,874.40	\$166,874.40
Wiscasset	\$13,990	\$27,622.44	\$259,320.60	\$259,320.60
TOTAL	\$291,855	\$566,551.04	\$2,441,924.10	\$2,458,830.67

Severe Summer Storms

Hurricane damages are included in the Severe Summer Storm hazard profile in this Plan Update rather than a separate category due to the low occurrence of hurricanes in Lincoln County. Worst-case, real-life damages were used to calculate potential damages from hurricanes.

The most recent, devastating hurricane to hit Lincoln County was Hurricane Carol in 1954. The per capita impact of Hurricane Carol in 2025 dollars is \$167.74.

The six counties impacted by Hurricane Carol have seen significant population increases and residential and commercial development, including secondary home construction. The per capita damages should be increased to reflect this development to \$311 (multiply \$167.74 by 652,621 [2019 Census Data] and divide by 351,465).

Potential Hurricane Damages in Lincoln County		
Municipality	Year-Round Population	Potential Hurricane Damages (Population x \$311)
Alna	710	\$220,810
Boothbay	3,003	\$933,933
Boothbay Harbor	2,027	\$630,397
Bremen	823	\$255,953
Bristol	2,834	\$881,374
Damariscotta	2,297	\$714,367
Dresden	1,725	\$536,475
Edgecomb	1,188	\$369,468
Hibbert's Gore (UT)	1	\$311
Jefferson	2,551	\$793,361
Louds Island and Lincoln County Islands (UTs)	3	\$933
Monhegan Island Plantation	64	\$19,904
Newcastle	1,848	\$574,728
Nobleboro	1,791	\$557,001

Somerville	600	\$186,600
South Bristol	1,127	\$350,497
Southport	622	\$193,442
Waldoboro	5,154	\$1,602,894
Westport Island	719	\$223,609
Whitefield	2,408	\$748,888
Wiscasset	3,742	\$1,163,762
TOTAL		\$10,958,707

Wildfires

The Plan uses worst-case, real-life damages to calculate potential wildfire losses, and assumes that historic patterns will hold for the future.

The 1947 wildfire was the worst on record, although it was actually a series of fires that flared over eastern and southern Maine. The 1947 fire caused an estimated \$30,000,000 in damages to Cumberland, Hancock, Oxford, and York Counties. The damage in 2025 dollars would be about \$433,587,444.

While there is significantly more development in each of these counties today than there was in 1947, fire-fighting capabilities have also increased substantially since that time so there may be no need to increase the damage estimate. The probability that a wildfire such as the 1947 fire will occur in Maine during the five-year period covered by this Plan is low.

The methodology for calculating potential wildfire losses in Lincoln County is based on the damages that have occurred in the 1947 fire in Cumberland, Hancock, Oxford, and York Counties. The population of these counties (2020 Decennial Census) is 618,933. The per capita cost for potential wildfire damages in 2025 dollars is \$700.

Potential Wildfires Damages in Lincoln County		
Municipality	Year-Round Population	Potential Wildfire Damages (Population x \$700)
Alna	710	\$497,000
Boothbay	3,003	\$891,891
Boothbay Harbor	2,027	\$1,418,900
Bremen	823	\$576,100
Bristol	2,834	\$1,983,800
Damariscotta	2,297	\$1,607,900
Dresden	1,725	\$1,207,500
Edgecomb	1,188	\$831,600
Hibbert's Gore (UT)	1	\$700
Jefferson	2,551	\$1,785,700
Louds Island and Lincoln County Islands (UTs)	3	\$2,100
Monhegan Island Plantation	64	\$44,800
Newcastle	1,848	\$1,293,600
Nobleboro	1,791	\$1,253,700
Somerville	600	\$420,000

South Bristol	1,127	\$788,900
Southport	622	\$435,400
Waldoboro	5,154	\$3,607,800
Westport Island	719	\$503,300
Whitefield	2,408	\$1,685,600
Wiscasset	3,742	\$2,619,400
TOTAL		\$23,455,691

Drought

One of the largest economic impacts from drought is typically agricultural losses. Using information from USDA's Census of Agriculture¹, the Planning Team was able to determine total crops sales in Lincoln County. Assuming drought will directly impact sales through reduced quality/failure of crops, the following table estimates reductions in agricultural commodity sales to estimate potential losses.

Potential Agriculture Commodity Losses (Adjusted using 2025 CPI)	
Total Commodity Sales from Lincoln County Agriculture	\$16,939,488
10% Reduction in Commodity Value	\$15,245,539 (A reduction of \$1,693,949)
25% Reduction in Commodity Value	\$12,704,616 (A reduction of \$4,234,872)
50% Reduction in Commodity Value	\$8,469,744 (A reduction of \$8,469,744)
75% Reduction in Commodity Value	\$4,234,872 (A reduction of \$12,704,616)

Assessing Vulnerability: Analyzing Development Trends

The Planning Team is not aware of any significant changes in development that would necessitate revisions to this subsection of **Element B: Risk Assessment**.

Lincoln County is located along the mid-coastline of Maine and is largely rural. A majority of the County's land use is designated as rural and is primarily forestland or farmland. The largest town is Waldoboro, having a year-round population of 5,154 residents and is located near the coast on the eastern end of the County. There are no suburbs in Lincoln County. The land uses within Lincoln County generally consist of Residential, Resource Protection, Agricultural, Industrial, and Commercial areas.

Lincoln County's population has grown marginally over the past decade. The 2010 Census recorded 34,445 residents and the 2020 Decennial Census population count is 35,237 residents (increase of 792 residents, +0.2% change).

¹ <https://www.nass.usda.gov/Publications/AgCensus/2017/index.php>

Per the 2020 Decennial Census, 28.9% of Lincoln County’s population is over the age of 65. The percentage of the County’s population with a disability is 16.1%. Lincoln County often holds the title of “the oldest county in the oldest state in the nation”. These statistics are important to note inasmuch as these populations may be impacted by future natural hazards.

The majority of residential development and population increase has occurred in coastal communities, while inland communities have also seen an increase in development since the Pandemic. Commercial growth has been primarily located on the U.S. Route 1 transportation corridor in the towns of Damariscotta, Newcastle, Waldoboro, and Wiscasset. This trend is expected to continue.

The State of Maine Legislature enacted the Growth Management Act in 1989 (Title 30-A, Chapter 187, subchapter 2) which requires each community to develop a municipal comprehensive plan. The municipal comprehensive plans allow towns to decide where future land development should occur in a community, taking into account the town’s environment, physical constraints, location of utility services, similarity to existing development, and proximity to flood zone areas.

Municipalities must review existing conditions by performing an inventory and predict future needs in order to develop their own plans, policies, and ordinances. A local land use ordinance, if adopted, must be based on and be consistent with the municipal comprehensive plan. (Note, it is not a requirement that towns have a zoning ordinance in order for their comprehensive plan to be approved by the State.)

All towns in Lincoln County have adopted floodplain management ordinances and shoreland zoning ordinances, either locally adopted or state imposed (if the community has not enacted a local shoreland zoning ordinance meeting state minimum standards). Many communities also have other land use ordinances such as subdivision and site plan review.

The chart on Page 108 lists the land use districts currently in effect in Lincoln County communities.

Flooding

Flooding may potentially impact all land use areas and zones within all communities in Lincoln County. This hazard has the primary impacts of shutting down transportation, since it is primarily the roads that are subject to flooding hazards. This could impact business, industry, commerce, and schools, as well as delay many social and emergency services.

The majority of Lincoln County municipalities have adopted floodplain ordinances to ensure FEMA development standards are applied to new construction within flood zones (Monhegan does not have Island-specific ordinances, such land use standards are administered by the Maine Land Use Planning Commission [LUPC]).

Preexisting commercial developments within flood zones have been in place for decades and may be upgraded to meet floodplain ordinances as the structures are renovated and/or

replaced. Additionally, there are a number of homes and seasonal camps located within flood zones. As these properties are mortgaged and/or substantially improved (as defined by FEMA), they may need to be upgraded to meet the floodplain ordinances.

Severe Winter Storms

Severe winter storms may impact all land use areas and zones within Lincoln County municipalities. This hazard has the primary impact of shutting down transportation, since it's primarily roads that are subject to the effects of high winds and the subsequent toppling of trees onto roads. Roads also become hazardous for vehicles and pedestrians during ice and snow conditions. This could impact business, industry, commerce, and schools, which may delay many social and emergency services.

Severe Summer Storms

Severe summer storms may impact all land use areas and zones within the 19 communities in Lincoln County. This hazard has the primary impact of potentially shutting down transportation, since it is primarily the roads that are subject to the effects of high winds and the subsequent toppling of trees onto roads. This could impact business, industry, commerce and schools and delay many social and emergency services.

Wildfires

Wildfires may have an impact on the residential properties located within the wildland-urban interface. Since Lincoln County is a densely forested, sparsely populated area, there are a number of homes that are at risk to destruction by forest fires. Currently, no municipality in Lincoln County is known to have wildfire restrictions or requirements on residential development.

Drought

Drought may have an impact on residential properties, some commercial sites, and on agriculture lands within the County. Agriculture production and residential water supply is most at risk.

Land Use Ordinances

The communities of Lincoln County understand that flooding, severe winter storms, severe summer storms, wildfires, and drought can have a major impact on their lives and way of life.

Nearly all Lincoln County municipalities have land use ordinances which strive to manage development in flood zones, coastal storm surge areas, and along major transportation routes.

The zoning districts known to be in effect in Lincoln County are:

Municipality	Land Use Districts
Alna	<u>Shoreland Zone</u> : Resource Protection; Stream Protection; Limited Residential; Head of Tide Village; Alewife Fishery
Boothbay	<u>Residential Districts</u> : Residential; Coastal Residential <u>Mixed Use Districts</u> : Boothbay Village Center; Boothbay Village Fringe; Boothbay Village Mixed-Use; East Boothbay Village; Scenic Gateway; Rural Mixed Use <u>Commercial Districts</u> : Commercial Corridor; Manufacturing/Business; Maritime Commercial <u>Natural Resources Districts</u> : Water Reservoirs Protection; Water Reservoirs Protection District – 27; Wellhead Protection <u>Overlay Districts</u> : Watershed Protection Overlay District; Bigelow Laboratory Contract Zone <u>Shoreland Zoning Districts</u> : Shoreland Zone; Resource Protection; Stream Protection
Boothbay Harbor	<u>Land Use Districts</u> : General Residential; Special Residential; Downtown Business A, B, and C; Limited Commercial/Maritime District; Working Waterfront; General Business <u>Shoreland Zoning Districts</u> : Resource Protection; Shoreland; Stream Protection Overlay
Bremen	<u>Shoreland Zoning Districts</u> : Residential; Commercial; Fisheries & Maritime Activities; Resource Protection; Stream Protection
Bristol	<u>Shoreland Zoning Districts</u> : Residential; Resource Protection; Public Recreation; Village; Stream Protection
Damariscotta	<u>Land Use Districts</u> : C-1; C-2; Medical; Municipal; Residential; Rural; Wireless <u>Shoreland Zoning Districts</u> : Commercial; Limited Commercial A; Limited Commercial B; Residential; Resource Protection; Stream Protection
Dresden	<u>Land Use Districts</u> : Dresden Mills Village; General Use; Rural Living <u>Shoreland Zoning Districts</u> : Resource Protection; Stream Protection; Limited Residential <u>Overlays</u> : Water Resources Management
Edgecomb	<u>Land Use Districts</u> : Edgecomb Gateway; Edgecomb Thoroughfare; Commercial Growth; Route 27 Corridor, Areas I, II, and III; Woodland; Rural; Marine <u>Shoreland Zoning District</u> : Stream Protection; Resource Protection
Jefferson	<u>Land Use Districts</u> : Limited Residential; Limited Commercial; General Development <u>Shoreland Zoning District</u> : Stream Protection; Resource Protection
Monhegan Island Plantation	<u>Land Use Districts (Administered by LUPC)</u> : General; Maritime; Residential; Recreation; Aquifer Recharge; Soils & Geology; Shore Lands; Unusual Area; Wetlands
Newcastle	<u>Land Use Districts</u> : Rural; Neighborhood Residential; Neighborhood Business; Village Residential; Village Business; Town Center <u>Special Land Use Districts</u> : Historic; Conservation; Highway Commercial; Rural Highway; Campus; Marine; Fabrication <u>Shoreland Zoning Districts</u> : Resource Protection; Limited Residential; Limited Commercial; Maritime Activities; Stream Protection
Nobleboro	<u>Shoreland Zoning Districts</u> : Limited Residential; Resource Protection; Stream Protection
Somerville	<u>Land Use Districts</u> : Development; Management <u>Shoreland Zoning Districts</u> : Limited Residential; Resource Protection; Stream Protection
South Bristol	<u>Shoreland Zoning Districts</u> : General Development; Freshwater; Limited Commercial; Residential; Resource Protection
Southport	<u>Land Use Districts</u> : Growth; Squirrel Island; Residential <u>Shoreland Zoning Districts</u> : Resource Protection
Waldoboro	<u>Land Use Districts</u> : Downtown Business; Historic Village; Industrial; Residential; Route 1 Commercial A; Route 1 Commercial B; Rural; Rural Village Business; Village <u>Overlay</u> : Wellhead Overlay

	<u>Shoreland Zoning Districts</u> : Stream Protection; Resource Protection; Limited Residential; Limited Commercial; General Development; Commercial; Fisheries/Maritime Activities
Westport Island	<u>Land Use/Shoreland Zoning Districts</u> : Resource Protection; Limited Development; Limited Residential/Commercial; Commercial Fisheries/Marine Activities
Whitefield	<u>Shoreland Zoning Districts</u> : Resource Protection; Limited Residential; Limited Commercial; General Development; Commercial Fisheries/Maritime Activities; Stream Protection
Wiscasset	<u>Land Use Districts</u> : Village 1; Village 2; Residential; Route 1 Commercial; Nequasset Watershed; Rural <u>Shoreland Zoning Districts</u> : Resource Protection District; Limited Commercial District; Business District I, Business District II; Village Waterfront District; Marine Overlay District; Stream Protection District

Multijurisdictional Risk Assessment

Lincoln County is a small Maine county of 35,237 people living in 456 square miles located along the mid-coast of Maine. There are 19 municipalities within the County. Municipalities contributed to the risk assessment analyses by completing the municipal survey, speaking with the Planning Team, attending the meetings described in **Element A: Planning Process**, and submitting photos and storm data.

The Planning Team identified flooding as the most significant risk to the entire County, followed in severity by severe winter storms, severe summer storms, wildfire (tied with drought), and drought (tied with wildfire). The rankings are provided earlier in **Element B: Risk Assessment** on Page 32.

Municipal Base Maps

A county base map and base maps for the municipalities are enclosed in **Appendix F**.

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ELEMENT C: MITIGATION STRATEGY

PLAN CRITERIA

C1. Does the plan document each participant's existing authorities, policies, programs, and resources and its ability to expand on and improve these existing policies and programs? *(Requirement 44 CFR §201.6(c)(3))*

- C1-a. Does the plan describe how the existing capabilities of each participant are available to support the mitigation strategy? Does this include a discussion of the existing building codes and land use and development ordinances or regulations?
- C1-b. Does the plan describe each participant's ability to expand and improve the identified capabilities to achieve mitigation?

C2. Does the plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? *(Requirement 44 CFR §201.6(c)(3)(ii))*

- C2-a. Does the plan contain a narrative description or a table/list of their participation activities?

C3. Does the plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? *(Requirement 44 CFR §201.6(c)(3)(i))*

- C3-a. Does the plan include goals to reduce the risk from the hazards identified in the plan?

C4. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? *(Requirement 44 CFR §201.6(c)(3)(iii))*

- C4-a. Does the plan include an analysis of a comprehensive range of actions/projects that each jurisdiction considered to reduce impacts of hazards identified in the risk assessment?
- C4-b. Does the plan include one or more action(s) per jurisdiction for each of the hazards as identified within plan's risk assessment?

C5. Does the plan contain an action plan that describes how the actions identified will be prioritized (including a cost-benefit review), implemented, and administered by each jurisdiction? *(Requirement 44 CFR §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))*

- C5-a. Does the plan describe the criteria used for prioritizing actions?
- C5-b. Does the plan provide the position, office, department or agency responsible for implementing/administering the identified mitigation actions, as well as potential funding sources and expected timeframe?

UPDATES TO THE 2026 LINCOLN COUNTY HAZARD MITIGATION PLAN FOR ELEMENT C

- Actions from the 2016 and the 2021 Plans are included for both the County and individual municipalities. Updates to those projects are provided.
- New projects for the 2026 Plan for Lincoln County and municipalities are included, where applicable.

ELEMENT C: MITIGATION STRATEGY

C1: Does the Plan document each participant's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs?

C1-a. Does the plan describe how the existing capabilities of each participant are available to support the mitigation strategy? Does this include a discussion of the existing building codes and land use and development ordinances or regulations?

C1-b. Does the plan describe each participant's ability to expand and improve the identified capabilities to achieve mitigation?

Existing Authorities, Policies, Programs, and Resources

Below is a summary of existing authorities, policies, programs and resources available to accomplish hazard mitigation. See also the table that follows this summary.

Town Manager, Administrator, Administrative Assistance to the Select Board

Some towns in Lincoln County have a town manager, others have an administrator whose duties may vary from those of a town manager, and still others have an administrative assistant to the select board who may serve as staff to the select board members but may not have the powers of a town manager to hire staff.

Staff Resources

Staff resources, where available, usually consist of a planner or economic development director. There are no towns in Lincoln County with staff resources devoted exclusively to hazard mitigation. Some local EMA Directors do earn a small stipend for serving in their role.

Public Works or Road Commissioner

Some communities have a public works director, but most have a road commissioner. The road commissioner might also be the town manager or select board member.

Flood Hazard Ordinance

In the table on page 113, the designation "LUPC" indicates that the plantation's flood plains are under the regulatory jurisdiction of the State's Land Use Planning Commission (LUPC). Other communities all have a flood plain ordinance, approved by the State and administered at the local level.

All Municipalities in Lincoln County

All towns in the County are required to have a shoreland zoning ordinance, whether adopted by the municipality or imposed by the Maine Department of Environmental Protection. The

designation LUPC indicates that the plantation's shore lands are under the regulatory jurisdiction of the State's Land Use Planning Commission.

Form of Government

In the following table, the letters "ST" indicate the select board/town meeting form of government; and the designation LUPC indicates that the plantation is governed by the State's Land Use Planning Commission. All Lincoln County towns have a Selectboard (or Assessors, as is the case in Monhegan Island Plantation) who are the final authority on fiscal matters and decision-making. Where an authority is not explicitly stated, it can be assumed the Selectboard or Assessors are the authority.

Resources

Other municipal officials and departments involved in hard mitigation activities. In addition to staffing or other expertise, funding resources are from local taxes, grants, and/or private donations.

Ability to Expand on & Improve Existing Policies, Programs, and Resources

The Lincoln County Regional Planning Commission (LCRPC), established under Maine statute (MRSA Title 13, Chapter 81, and Title 30-A, Chapter 119, Section 2321) and funded through a combination of County funds and grants received from state and federal agencies, engages in local planning activities that promote sustainable land use, transportation, and housing development for communities in Lincoln County¹. Planning services directed at sustainable development align with the Lincoln County Hazard Mitigation Plan (LC HMP) goals to reduce long-term risks associated with natural hazards. LCRPC would be a crucial partner for addressing future improvement and implementation of local mitigation policies and programs well beyond their assistance with the LC HMP update.

All jurisdictions in Lincoln County could expand and improve their existing capabilities if additional funds, beyond their existing tax bases, became available to address hazard mitigation projects listed later in **Element C: Mitigation Strategy**.

The Maine Uniform Building and Energy Code² (MUBEC) mandates the adoption of the 2021 International Building Code (IBC) and International Residential Code (IRC) for all jurisdictions with populations equal or exceeding 4,000. However, jurisdictions hold the right to adopt more recent building codes as a means of improving existing policy toward hazard mitigation. For floodplain programs, communities could potentially use more accurate topographic maps to expand upon FIRMs used by municipalities as the basis for floodplain ordinances, so long as the newly delineated floodplain is larger than the original map.

¹ <https://www.lcrpc.org/about>

² <https://www.maine.gov/dps/fmo/building-codes>

Existing Authorities, Policies, Programs, and Resources								
Town	Town Manager or Admin	Staff Involved in Local Planning	Public Works or Road Commissioner	EMA Director	Flood Hazard Ordinance	Shoreland Zoning Ordinance	Form of Government	Other authorities for Hazard Mitigation
Alna	Clerk	N	RC	Y	Y	Y	ST	Alna Fire Department, EMA
Boothbay	TM	Y	Y	Y	Y	Y	ST/TM	EMA
Boothbay Harbor	TM	N	Y	Y	Y	Y	ST/TM	EMA
Bremen	A	Y	RC	N	Y	Y	ST	EMA
Bristol	A	N	RC	Y	y	Y	ST	EMA
Damariscotta	TM	Y	Y	Y	Y	Y	ST/TM	GSB Sanitary District; CLC Ambulance Service EMA
Dresden	A	N	Y	Y	Y	Y	ST	
Edgecomb	Clerk/ AA	N	Y	Y	Y	Y	ST	Fire Dept.
Jefferson	AA	N	Y	Y	Y	Y	ST	Fire Dept./EMA
Monhegan Island Plt.	A	Y	RC	Y	LUPC	LUPC	Assessors and LUPC	EMA
Newcastle	TM	Y	Y	Y	Y	Y	ST/TM	EMA, Road Comm.
Nobleboro	Clerk	N	Y	Y	Y	Y	ST	
Somerville	AA	N	Y	Y	Y	Y	ST	Somerville Volunteer FD
South Bristol	N	N	N	Y	Y	Y	ST	EMA
Southport	AA	N	Y	Y	Y	Y	ST	EMA
Waldoboro	TM	Y	Y	Y	Y	Y	ST/TM	Planner
Westport Island	N/a	N	RC	Y	Y	Y	ST	Planning Board; Volunteer FD; CEO
Whitefield	AA	N	Y	Y	Y	Y	ST	
Wiscasset	TM	N	Y	Y	Y	Y	ST/TM	Public Works

C2: Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirement, as appropriate?

C2-a. Does the plan contain a narrative description or a table/list of their participation activities?

NFIP Compliance

In 2025, all 18 towns within Lincoln County participate in the National Flood Insurance Program (NFIP). As a condition of participation in NFIP, each town has enacted a floodplain management ordinance that limits new development in floodplain areas identified by Flood Insurance Rate Maps (FIRMs) produced by FEMA.

Monhegan Island Plantation and the unorganized territories in Lincoln County are under the jurisdiction of Maine's Land Use Planning Commission (LUPC). LUPC has agreed to administer and enforce the NFIP for all communities under its control and has modified its requirement to include floodplain management regulations. These jurisdictions therefore participate in the NFIP by virtue of the fact that they are under the jurisdiction of LUPC.

Participating communities will continue to comply with NFIP through the following activities:

- Enforcement of approved floodplain ordinances in Special Flood Hazard Areas.
- Training and technical assistance for local code officials provided by the Maine Floodplain Management Program.
- Distribute informational resources on NFIP insurance and building codes.
- Community assistance EMA activities to keep local officials informed of flood-related hazard mitigation issues and share instructions on how to read and interpret FIRMs.

Lincoln County Communities Participating in NFIP						
Municipality	Init FHBM	Init FIRM	Curr Eff	Reg-Emer	Floodplain Management Ordinance	Participation in NFIP
Alna	01/03/75	03/01/05	07/16/15	03/01/05	X	X
Boothbay	02/07/75	06/03/86	07/1/15	06/03/86	X	X
Boothbay Harbor	02/14/75	06/03/86	07/16/15	06/03/86	X	X
Bremen	01/31/75	02/04/87	07/16/15	02/04/87	X	X
Bristol	02/21/75	06/19/89	07/16/15	06/19/89	X	X
Damariscotta	02/14/75	09/30/88	07/16/15	09/30/88	X	X
Dresden	09/20/74	05/1/87	07/16/15	05/19/87	X	X
Edgecomb	01/03/75	10/01/02	07/16/15	10/01/02	X	X
Hibberts Gore (UT)	N/A	07/16/15	07/16/15	04/30/84	LUPC	LUPC
Jefferson	10/25/74	10/18/88	07/16/15	10/18/88	X	X
Louds Island and Lincoln County Islands (UTs)	N/A	01/04/02	07/16/15	04/30/84	LUPC	LUPC

Monhegan Island Plantation	---	07/16/15	07/16/15	04/30/84	LUPC	LUPC
Newcastle	02/21/75	04/01/03	07/16/15	04/01/03	X	X
Nobleboro	02/14/75	11/15/89	07/16/15	11/15/89	X	X
Somerville	04/25/75	04/03/87	07/16/15	04/03/87	X	X
South Bristol	04/11/75	07/16/90	07/16/15	07/16/90	X	X
Southport	01/17/75	05/17/88	07/16/15	05/17/88	X	X
Waldoboro	11/01/74	04/03/85	07/16/15	04/03/85	X	X
Westport Island	01/03/75	09/01/13	07/16/15	09/01/13	X	X
Whitefield	07/26/74	07/16/15	07/16/15	02/22/17	X	X
Wiscasset	05/24/77	04/16/91	07/16/15	11/20/91	X	X

C3: Does the plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards?

C3-a. Does the plan include goals to reduce the risk from the hazards identified in the plan?

Reducing/Avoiding Long-Term Vulnerabilities

The Hazard Mitigation Planning Team reviewed the goals contained in the 2021 Hazard Mitigation Plan and determined that these goals should continue to guide this 2026 Hazard Mitigation Plan update.

Comments from participating jurisdictions (public meetings, surveys, email, phone conversations) were used to inform these mitigation goals. The goals relate to the hazards profiled in Element B: Risk Assessment and include the following:

- *Flooding:* Reduce potential damage, injury and loss of life in Lincoln County caused by flooding.
- *Winter and summer storms:* Reduce potential damage, injury and loss of life in Lincoln County after a severe winter storm, summer storms
- *Wildfires:* Reduce potential damage, injury and loss of life in Lincoln County caused by wildfires.
- *Drought:* Reduce potential damage, injury and loss of life in Lincoln County caused by drought.

C4: Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure?

C4-a. Does the plan include an analysis of a comprehensive range of actions/projects that each jurisdiction considered to reduce the impacts of hazards identified in the risk assessment?

C4-b. Does the plan include one or more action(s) per jurisdiction for each of the hazards identified within the plan's risk assessment?

The Hazard Mitigation Planning Team conducted outreach to jurisdictions within Lincoln County to solicit input on specific actions and projects that will mitigate the effects of natural disasters. Actions are listed in order of priority.

First listed are actions being prioritized by Lincoln County Government, as well as updates from actions in the 2016 and 2021 plans. Individual jurisdiction mitigation actions can be found on Page 124. Responses from municipalities on countywide actions came from the municipal survey, found in **Element B: Risk Assessment** and **Appendix B**.

Countywide Mitigation Actions

Flooding

In Lincoln County, the most damages caused by coastal and riverine flooding are the destruction of roadways caused by washouts and undercutting. There could be loss of life caused from drowning during storm surge conditions. Floodwaters have potential to contaminate public and private water supplies and damage personal and real property. Most local jurisdictions are using FIRMs to control development in flood zones.

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	406 Funding	---	---	Lincoln County	Working to strengthen community capabilities by submitting competitive applications for 404 and 406 funding (contingent on disaster declaration)	Ongoing
2016	NFIP Participation	---	---	Lincoln County	Westport joined in 2011; Whitefield in 2016	Continue full NFIP participation
2016	Problem Documentation	---	---	LC EMA	Will discuss updating plan annually;	Ongoing

					Changed to quarterly in 2021	
2016	Grant & Training Opportunities	---	---	Lincoln County	Ongoing to encourage community mitigation actions	Ongoing
2021	Educational programs on flood mitigation and preparedness using local media, social media, informational sessions, hosting a preparedness fair	\$6k	2022-2026	LC EMA	Expanded social media presence; attending more local events to increase education and awareness	Expand this program in 2026 – 2031.

Severe Winter and Summer Storms

Winter Storms: The most likely damages caused by a severe winter storm event are the loss of electrical power, downed transmission lines, and blockage of roadways from tree debris or snow/ice. There could be loss of life caused by delayed responses from emergency services, the improper use of backup heat sources, freezing conditions, debris falling on an individual, or from storm-related vehicular accidents. Other types of general damage to personal and real property may be caused by high blizzard winds.

Summer Storms: In Lincoln County, the most likely damages caused by the high winds from a severe summer storm or hurricane event are loss of electrical power, downed transmission lines, and blockage of roadways. There could be loss of life caused by debris falling on an individual, or from storm-related vehicular accidents. Other types of general damage to personal or real property may be caused by severe storm or hurricane winds.

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	Generators	---	---	LC EMA	Working toward installing generators for critical facilities.	Ongoing
2016	406 Funding	---	---	Lincoln County	Expanded to include 404 funding in 2021 Plan.	Ongoing
2016	Website/Media Outreach	---	---	LC EMA	Ongoing	Ongoing
2016	Infrastructure Protection	---	---	LC EMA	Ongoing	Ongoing

2021	Educational programs on severe winter and summer storm mitigation and preparedness by using local media, social media, informational sessions and hosting a preparedness fair.	\$6k	2022-2026	LC EMA	Expanded social media presence; attending more local events to increase education and awareness	Expand this program in 2026 – 2031.
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Wildfires

In Lincoln County, the most likely immediate damages caused by a wildfire are injuries, possible loss of life, loss of prime timberland, and the destruction of personal and real property, especially homes. The loss of electricity is possible, since the majority of high voltage transmission lines pass through heavily wooded areas. The very presence of a wildfire may close commerce, resulting in major losses of income for local businesses. Subsequent damages might include flooding if the land has been cleared of vegetation by wildfire.

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	Public Education	---	---	LC EMA	Ongoing	Ongoing
2016	Mutual Aid	---	---	LC EMA	Ongoing	Ongoing
2016	Grant Applications	---	---	LC EMA	Ongoing	Ongoing
2021	Educational programs on wildfire mitigation and preparedness by using local media, social media, informational sessions and hosting a preparedness fair.	\$6k	2022-2026	LC EMA	Expanded social media presence; attending more local events to increase education and awareness	Expand this program in 2026 – 2031.

Drought

Drought is a deficiency in precipitation over an extended period, usually a season or more, resulting in water shortage causing adverse impacts on vegetation, animals, and/or people. Because drought classification is relative to average local precipitation and surface and groundwater levels, all of Lincoln County is susceptible to drought. In Lincoln County, drought affects areas of agriculture, as well as public and private aquifers and wells. Refer to **Element B: Risk Assessment** for more details on drought and areas susceptible to drought in Lincoln County.

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2021	Educational programs on severe winter and summer storm mitigation and preparedness by using local media, social media, informational sessions and hosting a preparedness fair.	\$6k	2022-2026	LC EMA	Expanded social media presence; attending more local events to increase education and awareness	Expand this program in 2026 – 2031.

C5: Does the plan contain an action plan that describes how the actions identified will be prioritized (including a cost-benefit review), implemented, and administered by each jurisdiction?

C5-a. Does the plan describe the criteria used for prioritizing actions?

C5-b. Does the plan provide the position, office, department, or agency responsible for implementing/administering the identified mitigation actions, as well as potential funding sources and expected time frame?

Prioritized Countywide Mitigation Projects

The Lincoln County Hazard Mitigation Planning Team established priorities by hazard for the general mitigation actions. The Team used the following criteria to rank each of the actions:

- Life safety
- Population benefited
- Probability of community acceptance
- Probability of funding
- Feasibility of implementation

Each the proposed 2021 Strategy, identified to be expanded in the 2026 HMP Update timeframe (2026-2031) was rated high (3 points), medium (2 points) or low (1 point) for each of the criteria, with the result that priorities were established by total score (the higher the points, the higher the priority).

Rating of 2026-Proposed Countywide Mitigation Projects						
Project	Life Safety	Population Benefited	Probability Community Acceptance	Probability Funding	Feasibility of Implementation	Total Score
<i>Flooding Mitigation Projects</i>						
Educational programs on preparedness for flooding by using local media, social media, informational sessions, and hosting a preparedness fair.	3	3	3	3	3	15
<i>Severe Winter and Summer Storm Mitigation Projects</i>						
Educational programs on preparedness for winter and summer storms by using local media, social media, informational sessions, and hosting a preparedness fair.	3	3	3	2	2	13
<i>Wildfire Mitigation Projects</i>						
Educational programs on preparedness for wildfires by using local media, social media, informational sessions, and hosting a preparedness fair.	2	3	3	1	1	10
<i>Drought Mitigation Projects</i>						
Educational programs on preparedness for drought by using local media, social media, informational	2	3	3	1	1	10

sessions, and hosting a preparedness fair.

Prioritized Local Mitigation Projects

Criteria for Prioritization

Projects are listed in priority order. Most of the municipalities in Lincoln County identified one or more action items consistent with the Countywide goals and actions, to mitigate hazards at the local level. The jurisdictions, as well as the specific actions they will pursue, are listed in priority order in the mitigation strategy tables.

The list of local projects was developed separately by municipalities and in consultation with the County. Local officials utilized the following criteria to develop and informally prioritize the list of projects:

- local knowledge of the frequency and extent of local damages
- local knowledge of project priorities, based on frequency and severity of damages
- local knowledge of the benefits that could result from the projects vs. the assumed costs of
- the projects
- local knowledge of the weather, the geography and topography of the community
- technical and financial abilities of their respective communities to address hazards and mitigate the impacts of hazards.

Use of a Cost-Benefit Review

Since most Lincoln County communities have tight budget constraints, in virtually all cases involving expenditure of local funds, there will be a very rigorous, line-by-line analysis of cost effectiveness during the budget review process and public discussion. This review is at least equal to a formal benefit-cost calculation because each expenditure item will be carefully scrutinized rather than simply being plugged into a formula. For purposes of grant applications, however, MEMA and the County EMA have made it clear to local officials that a formal cost benefit analysis will have to be prepared when they apply for mitigation funding.

The projects carried over from the 2016 and 2021 plan updates have not been adjusted for inflation or changes in project costs.

Implementation and Administration

Participating jurisdictions report their implementation strategy by providing the responsible agency, projected timeframe, and updated status for each reported mitigation action. The Planning Team administers reporting of current, completed, and deferred mitigation actions within the Lincoln County Hazard Mitigation Plan, and responsible

agencies within jurisdictions administer mitigation actions and are responsible for reporting any changes in progress.

While Lincoln County EMA and LCRPC do not have any direct authority to implement hazard mitigation actions in the municipalities, they do oversee preparation of the 2026 LC HMP Update, support hazard mitigation training and coordination of local EMA directors, and oftentimes participate in grant application development.

Project Status

Many municipalities simply do not have the resources to construct these projects using only local funds, and this has been indicated by the phrase “deferred, lack of funds.”

Timeframe

Some of the projects have been completed, as indicated in the table of projects. Some are newly listed. However, the vast majority of projects are carry-overs from the 2021 plan update, so an approximate time frame has been assigned to each project, subject to the availability of funds which, in most cases, have not been secured as of this writing.

The time frames start when funding becomes available and permitting is completed.

- Short Term: 1-2 years
- Medium Term: 3-4 years
- Long Term: 5+ years

Municipal inaction to date does not mean lack of interest. Most municipalities do not have the funds to implement the projects, in part because scarce municipal resources are dedicated to winter and summer road maintenance, school costs and county budgets, to name a few. Municipal finances are also being squeezed by state funding cutbacks in revenue sharing, education, county jails, and other areas of government.

For all of the reasons stated above, projects with the status “Deferred – lack of funds” may have to be carried over to the next planning cycle unless more funding opens up in the coming years. The influx of funds from the state government for mitigation, adaption, and hazards planning may positively affect these time frames. As of the 2026 writing state funds beyond the Community Resilience Partnership Community Action Grant program have not been specifically allocated, but the Planning Team anticipates more projects may be able to be completed with the implementation of L.D. 1.

Potential Funding Sources

Potential funding sources for local projects include, but are not limited to:

- Local tax dollars
- MaineDOT local road assistance funds
- Maine Infrastructure Adaptation Fund (MIAF)

- FEMA Hazard Mitigation Assistance (HMA) grant funds
- Community Development Block Grant (CBDG) funds
- Community Resilience Partnership Community Action Grant funds
- Other (private benefactors, philanthropic organizations, emerging grant programs)

Most high priority mitigation actions will be funded by local tax money as local budgets allow. The County and relevant state and federal agencies will assist communities that are interested in applying for the funding sources listed above.

Reducing Impacts of Hazards Identified in the Risk Assessment

The mitigation actions identified on the following pages are a response to the hazards profiled within **Element B: Risk Assessment** and informed by community survey results. Upon implementation, these actions will reduce long-term risks to communities in Lincoln County. Some general examples of these actions include road elevation and culvert improvement projects to mitigate flooding risks; installing generators in critical facilities to ensure that services will be available when needed; vegetative management plans to reduce potential power outages during severe winter and summer storms or also to reduce fuels for reducing wildfire risk; improving drainage and stormwater retention to locally reduce flooding and erosion risks; installing dry hydrants in newly developed areas to reduce wildfire risk; and hosting educational programs to inform residents of mitigation programs and actions to reduce risk.

References to culvert projects refer to upsizing or lengthening culverts, unless otherwise stated. Per Maine Department of Transportation's Environmental Office, upsizing and lengthening culverts is an important mitigation practice to improve flow conditions and reduce the extent and likelihood of flood damage caused by undersized or poorly designed/maintained culverts. Similarly, projects that reference ditching and elevating roads are intended to avoid road surface flooding and associated transportation and emergency response vulnerabilities.

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MUNICIPAL MITIGATION ACTIONS

On the next several pages, mitigation actions by jurisdiction are provided. Updates have been added to the Mitigation Action tables from the 2021 Plan, as some may have been carried over, completed, or abandoned.

Throughout the 2026 Plan update process, municipalities were asked to submit specific projects, cost ranges, timelines, and authorities to respond to the natural hazards profiled in this Plan.

Given various grant funding capabilities and allowances, municipalities were encouraged to list projects that included project engineering or scoping costs as a separate line item so as to more readily source funding specific to that task.



ALNA, TOWN OF

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Baily and Lothrop Road, Stone line plunge pool 40' x 8' x 3'	\$2,000	Short term	Road Commissioner	Proposed in 2016; deferred in 2021	Deferred lack of funds
2016	2) Baily Road; Add 48" x 40' HDPE culvert and elevate road 18' x 60' x 2' and stabilize shoulders	\$20,000	Medium term	Road Commissioner	Proposed in 2016; deferred in 2021	Deferred lack of funds
<i>No New Projects Reported in 2021 HMP Update</i>						
2026	1) Egypt Road Cross Culvert	\$6,000	Long term	Road Commissioner	N/A	New Project for 2026
2026	2) Golden Ridge Road Ditching	\$2,000	Short term	Road Commissioner	N/A	New Project for 2026
2026	3) S. Old Sheepscot Road, add gravel and recrowning	\$960	Short term	Road Commissioner	N/A	New Project for 2026
2026	4) Rabbit Path shims/overlay	\$10,000	Medium term	Road Commissioner	N/A	New Project for 2026
2026	5) Dock Road shims/overlay	\$10,000	Medium term	Road Commissioner	N/A	New Project for 2026
2026	6) Cross Road across from Narrow Gauge Railroad, localized flooding installation of beaver deceiver	\$5,000	Long term	Road Commissioner	N/A	New Project for 2026
2026	7) Golden Ridge Road Cross Culvert, 6 ft. diameter	\$150,000-\$200,000	Long term	Road Commissioner	N/A	New Project for 2026
2026	8) Dock Road extension, paving 200 yards	\$65,000	Long term	Road Commissioner	N/A	New Project for 2026
2026	9) Flooding of Sheepscot River, Route 194: Conserve/restore natural floodplains; tree plantings; berm development; watershed management plan; develop flood alert system/install an upstream and down stream water level monitor; engage community in data collection in partnership with NWS	\$6,000	Long term	Road Commissioner	N/A	New Project for 2026

BOOTHBAY, TOWN OF

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Dover Rd; Upsize (4) 8" x 40' culverts with 15" x 40' HDPE culverts and riprap intake and outlets	\$14,000	Medium term	Road Commissioner	2016: Deferred lack of funds 2021: Ongoing	Ongoing
2016	2) East and West Side Road on Barters Island; Ditch 8,000' and add check dams as needed; upsize (8) culverts with 18" x 40' HDPE culverts and remove ledge as needed	\$52,000	Long term	Road Commissioner	2016: Deferred lack of funds 2021: Ongoing	Ongoing
2016	3) Ocean Point Road (Shore Road) Stabilize banks 7,500' x 20' on average	\$90,000	Long term	Road Commissioner	2016: Deferred lack of funds 2021: Ongoing	Completed during 2024 post-storm rebuild
2016	4) Back River Cross Road; Upsize existing 36" x 40' culvert with 8' x 4' x 40' bottomless box and riprap intake and outlet	\$45,000	Long term	Road Commissioner	2016: Deferred lack of funds 2021: Ongoing	Ongoing
2016	5) King Philips Trail; Stabilize shoulders 2,500' x 20' and upsize existing culvert with 24" x 40' HDPE and riprap intake and outlet	\$35,000	Medium term	Road Commissioner	2016: Deferred lack of funds 2021: Ongoing	Completed during 2024 post-storm rebuild
<i>No New Projects Reported in 2021 HMP Update</i>						
2026	1) King Philips Trail hazard mitigation planning and implementation	Uncalculated	Long term	Road Commissioner	N/A	New Project for 2026; Deferred lack of funds

BOOTHBAY, TOWN OF *(continued)***2026 Hazard Mitigation Plan Update Project List**

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2026	2) Ocean Point Road Shore Road Hazard Mitigation Planning and Implementation	\$3,500,000	Long term	Road Commissioner	N/A	New Project for 2026; Deferred lack of funds
2026	3) Wildcat Creek Bridge (#3822) on Route 27 near Wildcat Creek Drive	\$2,000,000	Long term	Select Board, Road Commissioner, MDOT	N/A	New Project for 2026
2026	4) Mill Creek Bridge/Causeway (#14526) on Route 96 near Ocean Point Marina	\$2,000,000	Long term	Select Board, Road Commissioner, MDOT	N/A	New Project for 2026

BOOTHBAY HARBOR, TOWN OF INCLUDING BOOTHBAY HARBOR SEWER DISTRICT

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Townsend Ave, Atlantic Ave, and Union St.; Upsize underground drainage 5,000' x 12" with 5,000' x 28" and add (30) catch basins	\$275,000	Long term	Public Works	2016: Deferred lack of funds 2021: Ongoing	Ongoing
2016	2) Spruce World Beach Road; Upsize 24" x 40' cmp with 36" x 40' HDPE culvert and riprap intake and outlet	\$5,000	Medium term	Public Works	2016: Deferred lack of funds 2021: Ongoing	Ongoing
2021	1) North Shoreline Stabilization WWTP Perimeter Barrier WWTP Flood Barriers Reinforcement of Buildings Elevate Chlorine Contact Tank	\$100,000 \$1,800,000 \$307,500 \$3,200,000 \$200,000	2022-2025 2022-2025 2024-2027 2030-2040 2030	Sewer District (for all)	In Design In Design In Design In Planning In Planning	Abandoned
2021	2) Elevate Structures and Equipment PS 06 PS 02 PS 03 PS 07 PS 12 PS 13 PS 14 PS 15 PS 16	\$95,000 \$295,000 \$295,000 \$45,000 \$27,000 \$27,000 \$27,000 \$27,000 \$27,000	2028 2022 2022 2022 2024 2024 2024 2025 2025	Sewer District (for all)	In Planning In Design In Design In Design In Planning In Planning In Planning In Planning In Planning	Abandoned

BOOTHBAY HARBOR, TOWN OF *(continued)*

INCLUDING BOOTHBAY HARBOR SEWER DISTRICT

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2021	3) Install Emergency Power					
	PS 02	\$25,000	2022		In Design	
	PS 03	\$25,000	2022		In Design	
	PS 14	\$20,000	2023		In Planning	
	PS 16	\$20,000	2023		In Planning	
	PS 17	\$25,000	2024	Sewer District (for all)	In Planning	Abandoned
	Flood-Proof Manhole in Flood Surge Areas	\$7,000	2028		In Planning	
	Metering Manhole	\$6,000	2028		In Planning	
2026	1) Waterproof doors on the treatment plant		2026 spring		In Planning	
	A pump station for contract tank	\$8,000,000	2026 spring	Sewer District (for all)	In Planning	New Project for 2026
	A new generator upgrade to totally run the treatment plant		2026 spring		In Planning	
2026	2) Coastal Resiliency Phase 1	\$9,000,000	Current			
	Coastal Resiliency Phase 2	\$4,000,000	Short term			
	Blower/SBR Upgrade	\$1,500,000	Short term			
	Preliminary Treatment Upgrade	\$13,500,000	Medium term			
	Solids Handling Upgrade	\$750,000	Short term			
	Disinfection Upgrade	\$200,000	Medium term			
	Plain Water Upgrade	\$100,000	Medium term			
	SCADA Upgrade	\$500,000	Short term			
	Ancillary Upgrades	\$700,000	Medium term			
2026	1) Town Projects - TBD					

BREMEN, TOWN OF

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Rial Herald Rd; Ditch 5,000', upsize and realign existing cmp with 24" x 40' squash pipe.	\$25,000	Medium term	Road Commissioner	2016: Deferred lack of funds 2021: Ongoing	Completed
2016	2) Town Hall; install French drains 100' and reseed	\$4,000	Short term	Road Commissioner	2016: Deferred lack of funds 2021: Ongoing	Completed
2021	1) Tree pruning to cut down on power outages on Fogler Road	Uncalculated	Short term	Fire Department	2021: Ongoing	Completed
2026	1) Erosion damage Town Landing	\$50,000	Medium term	Harbor Committee	N/A	New Project for 2026
2026	2) Tree pruning to reduce power outages on Biscay Rd, Turner Rd, and Rte 32	Uncalculated	Medium term	CMP; State DOT	N/A	New Project for 2026

BRISTOL, TOWN OF

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Split Rock Road; Upsize culverts and lift road above flood level	Uncalculated	Short term	Road Commissioner	2016: Deferred lack of funds 2021: Planned for 2023-2024	2024: Culverts were replaced and road bed raised; unclear whether to above BFE
2016	2) Route 130; In conjunction with MDOT, elevate road above flood stage	Uncalculated	Short term	Road Commissioner	2016: Deferred lack of funds 2021: Required MDOT input	Abandoned
2021	1) Install fixed generator at Bristol Town Office	\$15,000 - \$20,000	Short term	Select Board	2021: Ongoing	Completed
2026	1) Replacement of Hatchtown Bridge on Lower Round Pond Road	\$1,100,000	Short term (Nov 2025)	Select Board	MDOT recommended bridge replacement	New Project for 2026
2026	2) Replacement of the Stone Arch Bridge on Benner Road	\$2,500,000 (estimated)	Medium term (2027-2028)	Select Board	MDOT recommends bridge replacement; Bridge is on National Register of Historic Places	New Project for 2026

DAMARISCOTTA, TOWN OF

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Egypt Road; Elevate road 300' x 21' x 2', add 36" x 40' HDPE culvert and repave	\$150,000	Medium term	Public Works	2016: Engineering estimates prepared 2021: Deferred lack of funds	Engineering costs estimated in 2025 Pre-engineering and construction still need to occur.
2016	2) Back Meadow Road; Elevate 100' x 5' x 21' stabilize shoulders and repave	\$100,000	Medium term	Public Works	2016: Engineering cost estimates 2021: Deferred lack of funds	2024: Road flooding controlled by beaver deceiver device Low priority; long term project for elevation of road
2016	3) Chapman Street; Divert water away from homes behind shopping center	\$100,000	Long term	Public Works	2016: As part of \$750,000 CDBG grant, new box culvert installed near Church Street to improve storm water drainage on Chapman, Hodgdon, Church, and Pleasant Streets	2025: Boundary survey work completed Improvements planned for 2026/27

DAMARISCOTTA, TOWN OF *(continued)*

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	4) Municipal parking lot; Construct flood wall and reconstruct parking lot to reduce flooding	Uncalculated	Long term	Public Works	2016: Engineering completed in 2014 2021: In progress	Completed: Storage chambers installed; temp wall available for deployment
2016	5) Areas vulnerable to sea level rise; Fortify areas subject to flooding due to SLR, including downtown, Miles Road, Oyster Creek (on Belvedere)	Uncalculated	Long term	Public Works	2016: Proposed in HMP 2021: Tidal Influence. Griffin Lane. Courtyard Street.	Abandoned
2016	6) Great Salt Bay School Shelter	\$150,000	Short term	Administration	2016: Proposed in HMP 2021: Deferred (3-phase needed; lack of funds)	Deferred lack of funds
2016	7) YMCA Shelter; Install Generator	\$200,000	Short term	Public Works	2016: Proposed in HMP 2021: Ongoing	Ongoing
2016	8) Dynamic flood model; simulate future flood vulnerabilities under anticipated SLR and storm surge intensity	\$138,000	Short term	US Army Corps of Engineers	2016: Proposed in HMP 2021: Ongoing	Status Unknown

DAMARISCOTTA, TOWN OF *(continued)*

INCLUDING GREAT SALT BAY SANITARY DISTRICT

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2021	1) Schooner Street Culvert	Uncalculated	Unknown	Miles Health	2021: Proposed in HMP.	Completed in 2024
2021	2) Church Street Bridge	Uncalculated	Unknown	Administration	2021: Proposed in HMP	Grant funded in 2023, Pre-Engineering in 2026; construction in 2027/28 (estimated)
2026	1) Replace Town Office generator	Uncalculated	Unknown	Public Works	N/A	New Project for 2026
2026	2) Replace Fire Department generator	Uncalculated	Unknown	Fire Department	N/A	New Project for 2026
2026	3) Main Street Culvert – increase in size, need concept design, pre-engineering, construction	\$2,000,000	Medium term	MDOT, Public Works, Select Board	N/A	New Project for 2026
2026	4) Feasibility study for microgrid focusing on hospital, municipal building, EOC	Uncalculated	Medium term	Administration	N/A	New Project for 2026
2026	5) Pump Stations – Raised/Moved out of flood plain (back parking lot near ramp, Miles Street, Lewis Point Rd) exploring making above ground	\$100,000 assessment	Long term	Great Salt Bay Sanitary District; Select Board	N/A	New Project for 2026
2026	6) Shared Public Works with Newcastle – pre-engineering for potential sites and construction	\$75,000 (pre-engineering) \$4,000,000 (construction)	Medium term	Select Board; Town of Newcastle	N/A	New Project for 2026; Feasibility assessment completed

DRESDEN, TOWN OF**2026 Hazard Mitigation Plan Update Project List**

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2021	1) Project scoping costs/ pre-construction costs to identify best solutions for Orchard Hills Road flood prevention	Uncalculated	Medium term	Road Commissioner	Deferred lack of funds	Ongoing
2021	2) Road stabilization of Orchard Hills Road to prevent flooding during heavy downpours and shows. 3 culverts with precast footing and riprap intake and outlets.	Uncalculated	Medium term	Road Commissioner	Deferred lack of funds	Ongoing
2026	TBD					

EDGEComb, TOWN OF

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Mount Hunger Road site 2; elevate 1,000' x 21' x 12" and upsize (4) existing culverts with 24" x 40 HDPE culverts	\$40,000	Long Term	Road Commissioner	Deferred lack of funds	Partial completion: road elevated; 2 culverts completed
2021	1) Mill Road, east side of bridge approach	Uncalculated	Unknown	Road Commissioner	Monitoring erosion conditions during storm events; deferred lack of funds	Ongoing
2021	2) McKay Road	Uncalculated	Unknown	Road Commissioner	One section floods periodically during heavy rain storms; monitoring	Ongoing
2026	1) Mount Hunger Road. Culverts and drainage	\$500,000+	Unknown	Road Commissioner; MDOT	N/A	Updated project from #1 in 2016; road elevated, culverts need to be completed
2026	2) Mill Road. Culverts and drainage. Bridge.	\$500,000	Unknown	Road Commissioner & MDOT	N/A	New Project for 2026

EDGEComb, TOWN OF *(continued)***2026 Hazard Mitigation Plan Update Project List**

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2026	3) Englebrekt Road. Culvert work. Redo entrance to Rte. 1 for safety with guard rail.	\$1,000,000+	Short term	Road Commissioner & MDOT	N/A	New Project for 2026
2026	4) Spring Hill Farm Road, culvert work and drainage	\$500,000+	Unknown	Road Commissioner & MDOT	N/A	New Project for 2026 – culverts need to be replaced with concrete form.
2026	5) Eddy Road. Banking and guard rails washing out.	\$300,000+	Long term	DEPT and MDOT	N/A	New Project for 2026
2026	6) Fire Station. “Emergency Vehicles Entering” signs on either side of entrance to Station. Due to poor visibility at the top of the hill.	Uncalculated	Short term	Fire Dept. and MDOT	N/A	New Project for 2026
2026	7) Generator installations at Town Hall and upgrade Fire Dept.	\$20,000	Short term	Administration & Fire Dept.	N/A	New Project for 2026
2026	8) Sheepscot River flood monitoring and alert system	\$5,000+	Long term	EMA, Fire Dept., Road Commissioner	N/A	New Project for 2026
2026	9) Salt contamination to wells in the shoreland zone	Uncalculated	Long term	EPA & Town Officials	N/A	New Project for 2026
2026	10) Turn-arounds on small and dead-end roads for emergency vehicles	\$200,000+	Unknown	Road Commissioner and Fire Dept.	N/A	New Project for 2026
2026	11) Adaptable public service interface solutions bringing the Town Hall into ADA compliance and providing general ease of access during emergencies and times of high need	\$1,000,000+	Short term	Town Officials, Service Providers, Architect	N/A	New Project for 2026; renovation design has been completed.

EDGEComb, TOWN OF *(continued)*

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2026	12) Heat pump installations in all public buildings to serve as cooling centers.	\$90,000	Unknown	Town Officials and Service Providers	N/A	New Project for 2026

JEFFERSON, TOWN OF

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2021	1) Install new culverts and remove ledge as needed while rebuilding and elevating the roadway on Munsey Road	\$10,000	Short term	Road Commissioner	Ongoing	Ongoing
2021	2) Egypt Road – ditching, remove ledge, building road up	\$80,000	Long term	Road Commissioner	Ongoing	Ongoing
2026	1) Somerville Road culvert/bridge repair	Uncalculated	Medium term	Town/Road Commissioner	N/A	New Project for 2026
2026	2) Mill Pond Dam dredging and hydrant repair	\$30,000	Short to medium term	Town/MDOT Dam Committee	N/A	New Project for 2026
2026	3) Somerville Road engineering	Uncalculated	Medium term	Town/Road Commissioner/Engineer	N/A	New Project for 2026

MONHEGAN ISLAND PLANTATION

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Lighthouse Hill Road; Elevate 2,000' x 10' x 2' shape and add 15" x 20' cross culvert	\$104,000	Long term	Road Commissioner	2016: Deferred 2021: Deferred	Deferred
2016	2) Fire station / emergency shelter. Replace existing 30' x 24' building with 2-story building of same dimensions and add backup generator	\$120,000	Long term	Board of Assessors	2016: Deferred lack of funds 2021: Annually saving, working on permitting, updated cost estimate	Deferred due to shift in priorities; revised cost estimate will be needed
2016	3) Monhegan Cemetary; stabilize wall 800' x 4' with geotextile, stone, and native plantings	\$42,000	Medium term	Board of Assessors	2016: Deferred lack of funds 2021: Deferred lack of funds/staff capacity	Deferred due to shift in priorities; need to update project need and cost
2016	4) Horn's Hill/Burnt Head Road; elevate 200' x 10' x 2' upsize existing 12" 20' cmp with 15" x 20' HDPE cross culvert and riprap 50' x 1' x 1'	\$16,000	Long term	Road Commissioner	2016: Deferred lack of funds 2021: Deferred	Deferred
2021	1) 350 acres of 513 acre Monhegan Island – project scoping for fuel reduction forest fire prevention activities	Uncalculated	Short term	MAI Board of Trustees	2021: Deferred	Deferred

MONHEGAN ISLAND PLANTATION (*continued*) INCLUDING MONEHGAN WATER DEPARTMENT

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2021	2) Mooring Chain Road: remove bridge, replace with 1 of __' x 20' HDPE culvert and build road with 44 cyds. Fill (per MDOT recommendation)	\$8,736	Short term	Road Commissioner	In Progress	Completed
2021	3) Monhegan Ave at Tribler Road Intersection: replace cmp with 4 of __' x 20' HDPE culverts	\$2,500	Short term	Road Commissioner	In Progress	Ongoing
2021	4a) Monhegan Village outside coastal flood hazard zone plus 1-3ft SLR: project scoping for drought mitigation of public water supply	Uncalculated	Short term	Monhegan Water Dept.	In Progress	Study was prepared and recommendations on salt water intrusion prevention were prepared.
2021	4b) Bog Meadow Aquifer Monhegan Village to limits of Water Company Distribution System; project scoping for public water supply adaptation, contingency, mitigation plan address water company operations in the face of new drought conditions and other emerging natural hazards.	Uncalculated	Short term	Monhegan Water Dept.	Proposed in 2021	Study was prepared and issued to Plantation
2021	5) Water Lane; install chlorinator pump system	Uncalculated	Short term	Monhegan Water Dept.	Proposed in 2021	Ongoing
2021	6) Bog Meadow near Water Lane; install well point(s)	\$2,000	Short term	Monhegan Water Dept.	Proposed in 2021	Amended project; completed
2021	7a) Monhegan Village outside coastal flood hazard zone plus 1-3 ft SLR; relocate origin of public fresh water supply by installation of well points in area with reduced saltwater intrusion vulnerability	Uncalculated	Short term	Monhegan Water Dept.	Proposed in 2021	Amended project; completed
2021	7b) Monhegan Village: project scoping for education, identification and mitigation of chemical contamination of wells	Uncalculated	Short term	Monhegan Water Dept.	Proposed in 2021	Deferred

MONHEGAN ISLAND PLANTATION (*continued*) INCLUDING MONEHGAN WATER DEPARTMENT

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2021	7c) Education, identification and mitigation of chemical contamination of wells	Uncalculated	Short term	Monhegan Water Dept.	Proposed in 2021	Deferred
2021	8) Monhegan Wharf near Wharf Road; project scoping and engineering for elevating and stabilizing wharf surface	\$240,000	Short term	Board of Assessors	Proposed in 2021	Ongoing
2021	9) Monhegan Wharf reconstruction/renovation. Elevate and stabilize wharf surface	\$7,500,000+	Short to medium term	Board of Assessors	Proposed in 2021	Ongoing
2021	10) Monhegan Village bordering Monhegan Associates (land trust); project scoping for fuel reduction forest and structure fire prevention activities	Uncalculated	Short to medium term	Board of Assessors	Proposed in 2021	Deferred
2021	11) Monhegan Village bordering Monhegan Associates (land trust) implementation of fuel reduction forest and structure fire prevention activities	Uncalculated	Short to medium term	Board of Assessors	Proposed in 2021	Deferred
2021	12) Monhegan Avenue at Swim Beach Lane; build retaining wall and elevate road to prevent large-scale saltwater intrusion into Island's sole source aquifer	Uncalculated	Medium term	Board of Assessors	Proposed in 2021; replaced with 2026 projects	Abandoned (see new 2026 projects)
2021	13) Monhegan Breakwater near & at Fish Beach Lane – project scoping for breakwater in-kind repairs	Uncalculated	Medium term	Board of Assessors	Work accelerated following January 2024 storms	In progress
2021	14) Monhegan Breakwater near and at Fish Beach Lane- project engineering for elevation and stabilization	Uncalculated	Medium term	Board of Assessors	Proposed in 2021	In progress
2021	15) Monhegan Breakwater – construction to elevate and stabilize	Uncalculated	Medium term	Board of Assessors	Proposed in 2021	Ongoing
2021	16) Monhegan Harbor near Fish Beach Lane; stockpile stone armor for emergency breakwater repairs	\$325,000 - \$350,000	Medium term	Board of Assessors	Proposed in 2021	Deferred

MONHEGAN ISLAND PLANTATION (*continued*) INCLUDING MONEHGAN WATER DEPARTMENT

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2021	17) Project scoping for dry hydrant and pump installations and Lighthouse Hill fire suppression system	Uncalculated	Long term	Fire Chief and Board of Assessors	Proposed in 2021	Abandon; not feasible
2021	18) Project scoping for Monhegan Ave/Swim Beach/Bog Meadow Drainage; install tidal check valve and make subsurface stormwater improvements including resetting culvert and install catch basin, outfall pipe and riprap and elevate nearby structures. Elevate and stabilize Monhegan Ave roadway and corridor.	\$426,600-\$1,203,400	Long term	Board of Assessors	Proposed in 2021	Deferred
2021	19) Construction for Number 18 above	\$346,900 - \$1,190,600	Long term	Board of Assessors	Proposed in 2021	Deferred
2021	20) Monhegan Wharf near Wharf Road; install dry hydrant and pump(s)	Uncalculated	Long term	Fire Chief; Board of Assessors	Proposed in 2021	Deferred
2021	21) Ice Pond near Ice Pond Road; install dry hydrant	Uncalculated	Long term	Fire Chief; Board of Assessors	Proposed in 2021	Completed
2021	22) Monhegan Ave School EOC/Shelter; install generator(s)	\$25,000	Long term	Board of Assessors	Proposed in 2021	Deferred
2026	1) Project scoping for capturing/storing/using surface water and grey water sources	Uncalculated	Unknown	Board of Assessors	N/A	Proposed in 2026
2026	2) Lighthouse Hill at or near Monhegan Museum; project scoping for installation of underground fire suppression system	Uncalculated	Short to medium term	Board of Trustees	N/A	Proposed in 2026

NEWCASTLE, TOWN OF

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Station Road; Ditch and line 2,600' and add (2) 18" x 40' HDPE cross culverts	\$38,000	Long term	Road Commissioner	2016: Deferred lack of funds 2021: Adding ditch and grading; increased cost projection	Completed
2016	2) Indian Trail Rd; ditch 1,600' and add (4) 18" x 40' HDPE culverts and riprap intake and outlets	\$16,000	Long term	Road Commissioner	2016: Deferred lack of funds 2021: Deferred lack of funds	Deferred lack of funds
2021	1) West Old County Road; replace all cross pipes; ditch and grade	\$311,000	Short term	Road Commissioner	2021: In progress	Completed
2021	2) Station Road; replace all cross pipes, ditch, grade	\$400,000	Long term	Road Commissioner	2021: Deferred lack of funds	Completed
2021	3) Kings Highway; replace all cross pipes, ditch and grade	\$250,000	Long term	Road Commissioner	2021: Deferred lack of funds	Deferred lack of funds
2021	4) Glidden Street; Replace subsurface drainage, basins, and road reconstruction	\$1,000,000	Long term	Road Commissioner	2021: Deferred lack of funds	Funding approved for design work in FY26
2026	1) East Old County Road; Address crest of hill, entrance of road, and low point	Uncalculated	Short to medium term	Road Commissioner	N/A	New for 2026; HMPG application submitted

NEWCASTLE, TOWN OF *(continued)*

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2026	2) N & S Dyer Neck Road; Add emergency connection between North and South Dyer Neck Road	Uncalculated	Unknown	Road Commissioner	N/A	New Project for 2026
2026	3) North Newcastle Road; address the dam being above the Road	Uncalculated	Unknown	Road Commissioner	N/A	New Project for 2026
2026	4) Pleasant Street: Address failing retaining wall	Uncalculated	Unknown	Road Commissioner	N/A	New Project for 2026
2026	5) Lewis Hill Road; Add culverts and add causeway	Uncalculated	Unknown	Road Commissioner	N/A	New Project for 2026

NOBLEBORO, TOWN OF

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Bremen/ Duck Puddle Road; Elevate 300' x 21' x 5' upsize existing culvert with 10' x 8' x 50' box culvert and riprap intake and outlet and repave	\$65,000	Long term	Joint Project with Waldoboro	2016 & 2021: Deferred lack of funds	Updated project in 2021; this listing can be removed
2016	2) Upper Cross Road; Ditch 7,000' add (2) 24" x 40' HDPE cross culverts and (7) 15" x 20' HDPE driveway culverts	\$21,000	Long term	Road Commissioner	2016 & 2021: Deferred lack of funds	Updated project in 2021; this listing can be removed
2021	1) Bremen/ Duck Puddle Road; Elevate 300' x 21' x 5' upsize existing culvert with 10' x 8' x 50' box culvert and riprap intake and outlet and repave	\$150,000	Long term	Joint project with Waldoboro	2021: Project cost updated	Ongoing – Revisiting with Waldoboro's new Town Planner
2021	2) Upper Cross Road; Ditch 7,000' add (2) 24" x 40' HDPE cross culverts and (7) 15" x 20' HDPE driveway culverts	\$200,000	Short term	Road Commissioner	2021: Project cost updated	Deferred; not a priority at this time

SOMERVILLE, TOWN OF

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Install fixed generator at the Somerville Fire Station	\$32,000	Long term	Select Board; Electrician	2016: Proposed 2021: Deferred, unable to achieve warming station capability	Ongoing
2021	2) Easements for communications tower S. Colby Road – generator for transmitter	Uncalculated \$10,000 (approx.)	Short term	LC Communications SVFD	2021: Proposed	Abandoned; required more space than expected
2021	3) Additional hydrant for wildfire mitigation	\$3,000 - \$5,000	Short term	SVFD	2021: Proposed	Ongoing
2021	4) Permanent generators for north and south stations	\$18,000 - \$20,000	Short term	SVFD	2021: Proposed	Ongoing
2021	5) Generator for broadband command center at RSU-12 town-owned office	\$9,000 - \$10,000	Medium term	Select Board	2021: Proposed	Completed
2021	6) Broadband connections at Somerville Fire North and South stations	Uncalculated	Short term	Select Board	2021: Proposed	Completed
2021	7) Beaver dam clearing and culvert removal	\$2,000 - \$4,000	Short term	Road Commissioner	2021: Proposed	Completed; may need to occur again if beaver come back
2021	8) Tree removal and trimming at salt shed – North SVFD Station	\$1,500 - \$2,500	Short term	Road Commissioner	2021: Proposed	Completed
2026	1) Engineering and construction of stream smart culvert replacement at Lovejoy Stream	\$200,000+	Short term	Road Commissioner	N/A	New Project for 2026

SOUTH BRISTOL, TOWN OF

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2021	1) Ditch along Route 129 from John Gay Road to Coveside Road	\$4,000	Short term	Selectmen	2021: Proposed	Completed
2021	2) Ditch top of hill at Split Rock Road from #233 to stop ice from forming on road	\$5,000	Short term	Selectmen	2021: Proposed	Completed
2021	3) Raise road on Split Rock Road east of Sproul Road to prevent flooding	\$25,000	Short term	Selectmen	2021: Proposed	Completed
2026	1) The "Bar" in the area of 2378 Route 129; pre-engineering and concept study to raise the road or find an alternative to support reduced flooding and potential wash out.	\$100,000	Medium term	Select Board, MDOT	N/A	New project for 2026
2026	2) The "Bar" in the area of 2378 Route 129: Construction to raise the road or find an alternative to support reduced flooding and potential washout.	\$2,000,000	Long term	Select Board, MDOT	N/A	New project for 2026
2026	3) Viability study of current (2) dry hydrants	\$3,000	Medium term	Select Board, Fire Department	N/A	New project for 2026
2026	4) Pre-engineering and concept study for viable dry hydrants (possible locations currently identified on south end of Rutherford island, Ice House, and Walpole)	\$7,000	Medium term	Select Board, Fire Department	N/A	New project for 2026
2026	5) Purchase, construction, installation, and training on new dry hydrants identified in study	\$70,000	Medium term	Select Board, Fire Department	N/A	New project for 2026

SOUTHPORT, TOWN OF INCLUDING BOOTHBAY REGION WATER DISTRICT

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Campbell Road; Upsize existing 15" x 50' cmp with 24" x 50' HDPE culvert and stabilize road shoulder 150' x 20' on average.	\$12,000	Short term	Road Commissioner	2016 & 2021: Deferred lack of funds	Ongoing
<i>No projects proposed for 2021 Hazard Mitigation Plan Update</i>						
2026	1) Hendricks Head parking lot; seawall increase ~2 FT.; undersized culvert replacement	\$2,000,000	Short term	Road Commissioner	N/A	New Project for 2026 – Final engineering designs and permitting underway
2026	2) Town Landing – vulnerable to storm surge; parking lot erosion needs stabilization	\$12,000	Unknown	Road Commissioner	N/A	New Project for 2026
2026	3) Campbell Road crossing – needs beaver deceiver	\$2,500	Medium term	Road Commissioner	N/A	New Project for 2026
2026	4) Fire protection (first priority) and drinking water access year round (next priority) – to include water access to end smaller town roads	\$15,000,000	Short Term	Boothbay Region Water District	N/A	New Project for 2026 – extending year-round water access to the Island.
2026	5) Capitol Island Road – vegetative management for preventing overtopped trees during a winter ice storm	\$2,000	Unknown	Road Commissioner	N/A	New Project for 2026
2026	6) Plummer Road – heavy precipitation, roadway erosion from waterfall upland. Replace undersized culvert.	Uncalculated	Unknown	Road Commissioner	N/A	New Project for 2026
2026	7) Sawyers' Pond Road – Replace undersized culvert to 36" HDPE	\$5,000	Short term	Road Commissioner	N/A	Completed

UNORGANIZED TERRITORIES, LINCOLN COUNTY

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Improve ditches and drainage on county roads.	\$35,000	Long term	County Commissioners	2016: Proposed 2021: Deferred lack of funds	Deferred lack of funds
<i>No New Projects Proposed for 2021 Hazard Mitigation Plan Update</i>						
2026	1) Replace existing undersized culvert with (2) 4' sections	\$24,000	Short term	County Commissioners	N/A	Funds allocated through budget process and contractor secured. Scheduled completion by end of 2025.
2026	2) Sustain road maintenance schedule – needs addressed and preventative maintenance program established	\$23,500	Short and medium term	County Commissioners	N/A	New Project for 2026

WALDOBORO, TOWN OF

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Bremen/ Duck Puddle Road; Elevate 300' x 21' x 5' upsize existing culvert with 10' x 8' x 50' box culvert and riprap intake and outlet and repave	\$450,000 (updated cost in 2026)	Long term	Joint project with Nobleboro	2016: Proposed 2021: Deferred lack of funds and capacity in Nobleboro	Ongoing; towns working together to find funding for engineering.
2016	2) Feyler's Corner/ Old Augusta Road; elevate 1,000' x 21' x 2' Upsize (3) 24" x 40" cmps with 36" x 40" HDPE culverts; add (2) 48" x 40" HDPE culverts and repave	\$200,000 (updated cost in 2026)	Long term	Public Works	2016: Proposed 2021: Deferred lack of funds	Culverts were upsized as planned on Old Augusta Road in 2025; Feyler's Corner replacement took place in 2022. Elevation of 1000' feet of road is still needed.
2016	3) Elm St. Upsize existing culvert with 10' x 6' x 40' box culvert and riprap intake and outlet.	\$60,000	Long term	Public Works	2016: Proposed 2021: Deferred lack of funds	Completed; July 2025 at cost of approx.. \$300,000
2016	4) Storer Mountain Road; Upsize existing 5' x 36" CMP culvert with 5' x 36" HDPE and lower 12-18".	\$150,000 (updated cost in 2026)	Long term	Public Works	2016: Proposed 2021: Deferred lack of funds	Flooding in 2023 caused the road surface and shoulders to wash out in areas. Repaired for approx.. \$6,000. Still attempting to identify funding source for culvert replacement.
2016	5) Marble Ave; Install (1) 48" x 40" HDPE culvert; riprap intake, and outlet	\$60,000 (updated cost in 2026)	Medium term	Public Works	2016: Proposed 2021: Deferred lack of funds	Ongoing; looking for funds

WALDOBORO, TOWN OF *(continued)*

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	6) Wagner Bridge Road; Elevate 300' x 32' x 4'. Upsize existing 4' x 36" CMP culvert with 5' x 40' HDPE culvert, rip rap intake and outlet and repave.	\$150,000 (updated cost in 2026)	Short term	Public Works	2016: Proposed 2021: Deferred lack of funds	Ongoing: looking for funds
2026	1) Feyler's Corner/Old Augusta Road: Elevate 1,000' feet of road. Pre-engineering study and design	\$15,000	Medium term	Public Works	N/A	New Project for 2026: Exploring funding source for pre-engineering and for construction.

WESTPORT ISLAND, TOWN OF

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) West Shore Road; Ditch and line 2,000', remove ledge as needed, and add 15" x 30' HDPE cross culvert	\$25,000	Long term	Road Commissioner	2016: Proposed 2021: Deferred lack of funds	Ongoing
2016	2) East Shore Road; Ditch and line 2,000', remove ledge as needed	\$20,000	Long term	Road Commissioner	2016: Proposed 2021: Blasting costs increased to \$40,000	Ongoing
2016	3) Main (town portion) Road; Ditch 1,000' (near Jewett Cove Road)	\$5,000	Short term	Road Commissioner	2016: Proposed 2021: Ditching, replace culvert and paving \$50,000	Completed
2021	1) Feasibility/engineering study with implementation guidelines for developing the most cost-effective, practical options for a reliable firefighting water supply; dry hydrants, fire cisterns, equipment to allow the use of salt water without sacrificing the useful life of expensive firefighting equipment	Uncalculated	Short term	Select Board; Fire Dept.	2021: New Project	Ongoing
2021	2) Public awareness campaign RE: fire safety/outside burns	Volunteer	Short term	Select Board; Fire Dept.	2021: New Project	Ongoing

WESTPORT ISLAND, TOWN OF *(continued)*

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2021	3) Installation of a new water source to serve the south end of the Island	Uncalculated	Short term	Select Board; Fire Dept.	2021: Proposed	Completed
2021	4) Engineering study RE: installation of box culvert on West Shore Road at Squam Creek	Uncalculated	Long term	Select Board; Road Commissioner	2021: Proposed	Completed
2021	5) Installation of box culvert on West Shore road at Squam Creek Crossing (2026 Update) Implementation of Wright-Pierce 'partial restoration' design with a 60" RPC culvert and raise grade in 3 increments (2' by 2030, 4' by 2050, 8' by 2100)	Uncalculated	Long term	Select Board; Road Commissioner	2021: Proposed	Ongoing
2021	6) Engineering study RE: installation of a box culvert on West Shore Road at Heal Cove Crossing	Uncalculated	Long term	Select Board; Road Commissioner	2021: Proposed	Completed
2021	7) Installation of a box culvert on West Shore Road at Heal Cove (2026 Update) Implementation of Wright-Pierce "partial restoration" design with a 6' tall by 18' wide box culvert set 1' – 2' below the current pond water level. Raise grade in three increments (2' by 2030, 4' by 2050, 8' by 2100)	Uncalculated	Long term	Select Board; Road Commissioner	2021: Proposed	Ongoing
2021	8) Engineering study RE: installation of box culvert on Post Office Road at Squam Creek Crossing	Uncalculated	Long term	Select Board; Road Commissioner	2021: Proposed	Ongoing

WESTPORT ISLAND, TOWN OF *(continued)*

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2021	9) Installation of box culvert on Post Office Road (2026 Update) Implementation of Wright Pierce “full restoration” design with a “Stream Smart” 60” diameter arched metal culvert. Raise grade in two increments (2’ by 2030 and 4.5’ by 2050).	Uncalculated	Long term	Select Board; Road Commissioner	2021: Proposed	Ongoing
2021	10) Arborist survey of roads to develop a vegetation management plan for the prevention of downed power lines and obstructed roads (5.48 miles state roads; 18.48 miles of private roads)	Uncalculated	Short term	Select Board; Road Commissioner; MDOT	2021: Proposed	Abandoned
2021	11) Vegetation management plan and a year of cutting the most at-risk trees/limbs for damaging power lines/ obstructing roads with an initial evaluation of benefits	Uncalculated	Long term	Select Board; Private Contractor	2021: Proposed	Ongoing
2021	12) Installation of solar power source and digital sign at the head of the Island.	\$15,000	Short term	Select Board; EMA	2021: Proposed	Completed; Digital sign has been installed with CMP power
2021	13) Doggett Road: Building up the roadbed and installing a small box culvert	Uncalculated	Long term	Select Board; Road Commissioner	2021: Proposed	Ongoing
2021	14) Engineering/ architectural plan for renovating or building a new fire dept. to meet current equipment and safety needs and public accessibility for warming/cooling shelter.	Uncalculated	Long term	Select Board; Fire Dept.	2021: Proposed	Ongoing: Designs are conceptual
2021	15) Development of a map with all roadways identifying emergency access routes, vulnerabilities to flooding, and other access limitations	Volunteer	Short term	Select Board; EMA	2021: Proposed	Completed as part of Comp Plan Update

WESTPORT ISLAND, TOWN OF *(continued)*

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2021	16) Architectural/ construction evaluation of Town Office for all-seasons walk-up window solution	Uncalculated	Short term	Select Board; EMA	2021: Proposed	Completed 2023
2021	17) Construction of Town Office all-seasons walk-up window solution for more adaptable service delivery during pandemic or similar events that require adaptable public service solutions.	Uncalculated	Long term	Select Board; EMA	2021: Proposed	Completed 2023
2021	18) Small automatic generator for sand and salt shed – can be pulled up manually	\$5,000	Short term	Select Board; EMA	2021: Proposed	Completed: Currently have a manual generator install with an interlock to supply power to the sand and salt shed.
2026	1) Post Office Road dry hydrant/pump truck access	\$10,000	Short term	Select Board; Fire Dept.	N/A	New Project for 2026
2026	2) Installation of Smokey the Bear fire danger sign a the head of the Island.	\$4,000	Short term	Select Board; Fire Dept.	N/A	New Project for 2026

WHITEFIELD, TOWN OF

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Devine Road; Ditch and line 2,000, add check dams as needed and add 30' x 40' HDPE cross culvert	\$12,000	Medium term	Road Commissioner	2016 & 2021: Deferred lack of funds	Ongoing
2021	1) The parking area near the Sand/Salt shed is in need of repaving. 2-3 feet of current surface has to be removed and new gravel put in and compacted before paved.	Uncalculated	Long term	Select Board	2021: Proposed	Completed
2021	2) Gravel reconstruction program. Several gravel roads become impassible in the spring, affecting emergency vehicle response, mail, school bus routes, residential traffic. Solid new gravel base has to be put in with geotextile fabric over the base, foot of gravel on top of that.	\$2,000 - \$5,000 per hundred feet	Long term	Select Board	2021: Proposed	Ongoing – Several of the worst problem areas have been completed with a long-term plan to address other areas.
2021	3) Acquire a speed readout sign to be placed at different locations in town.	Uncalculated	Medium term	Select Board	2021: Proposed	Completed
2021	4) Install flashing light system at elementary school.	Less than \$10,000	Long term	Select Board	2021: Proposed	Completed
2026	1) Acquire heat pump for Fire Dept. meeting room to make available as a cool center during extreme heat waves	\$10,000	Short term	Select Board	N/A	Proposed Project for 2026; application for funds submitted to the CRP Community Action Grant program.

WISCASSET, TOWN OF INCLUDING WISCASSET WASTEWATER DISTRICT

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2016	1) Foley Road: Add 24" x 40' overflow HDPE culvert	\$3,000	Short term	Public Works	2016 & 2021: Deferred lack of funds	Ongoing
2016	2) Loweltown Road; Upsize existing twin 30" x 40' HDPE culverts with 8' x 4' x 40' bottomless box culvert	\$35,000	Long term	Public Works	2016 & 2021: Deferred lack of funds	Ongoing
2016	3) Potties Cove Road; Ditch 200' and add 15" x 40' HDPE cross culvert	\$4,000	Short term	Public Works	2016 & 2021: Deferred lack of funds	Ongoing
2016	4) Old Dresden Road: Add (1) 15" x 40' HDPE cross culvert	\$3,500	Short term	Public Works	2016 & 2021: Deferred lack of funds	Ongoing
2016	5) Public Works Garage; upsize 400' x 24" culvert with 30" x 400' HDPE culvert	\$30,000	Long term	Public Works	2016 & 2021: Deferred lack of funds	Abandoned; site potentially to be used for WWTP relocation
2021	1) Replace culvert on Ferry Landing Road	\$600,000	Long term	Public Works	2021: Proposed	Completed
2021	2) Tree removal on Willow Lane	\$100,000	Short term	Public Works	2021: Proposed	Ongoing
2026	1) Moving pump station controls above ground (#13 at 151 Bradford Road, 314 at 585 Birch Point Rd, #16 at 643 Bath Road)	\$800,000	Short term	Wiscasset Wastewater District	N/A	New for 2026: Shovel-ready, waiting to send out RFP
2026	2) Upgrade to large wet wells and pumps (#3 at 341 Bath Road, #4 at 181 Gardiner Road)	\$5,000,000	Short term	Wiscasset Wastewater	N/A	New for 2026: Nearly shovel-ready; waiting for funds to be released for RFP
2026	3) Pre-Engineering/ concept/ testing: sewer force main rehab/ replacement near 721 Bath Road	\$200,000	Medium term	Wiscasset Wastewater	N/A	New Project for 2026

WISCASSET, TOWN OF *(continued)* **INCLUDING WISCASSET WASTEWATER DISTRICT**

2026 Hazard Mitigation Plan Update Project List

Year	Project	Cost	Timeframe	Responsible Agency	Past Status	2026 Status
2026	4) Construction: Sewer force main rehab/ replacement (near 721 Bath Road	\$5,000,000	Medium term	Wiscasset Wastewater District	N/A	New Project for 2026
2026	5) Pre-engineering/ studies: Sewer plant relocation from 69 Water Street to Public Works on Hodge Street	\$51,000,000	Medium to long term	Wiscasset Wastewater District; Public Works	N/A	New Project for 2026; voter approval received in 11/2024
2026	6) Construction: Sewer plant relocation from 69 Water Street to Public Works on Hodge Street	\$51,000,000	Medium to long term	Wiscasset Wastewater District; Public Works	N/A	New Project for 2026; voter approval received in 11/2024
2026	7) Town projects - TBD					



ELEMENT D: PLAN MAINTENANCE

PLAN CRITERIA

D1. Is there discussion of how each community will continue public participation in the plan maintenance process? *(Requirement 44 CFR §201.6(c)(4)(iii))*

- D1-a. Does the plan describe how communities will continue to seek future public participation after the plan has been approved?

D2. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating, and updating the mitigation plan within a five-year cycle)? *(Requirement 44 CFR §201.6(c)(4)(i))*

- D2-a. Does the plan describe the process that will be followed to track the progress/status of the mitigation actions identified within the Mitigation Strategy, along with when this process will occur and who will be responsible for the process?
- D2-b. Does the plan describe the process that will be followed to evaluate the plan for effectiveness? This process must identify the criteria that will be used to evaluate the information in the plan, along with when this process will occur and who will be responsible.
- D2-c. Does the plan describe the process that will be followed to update the plan, along with when this process will occur and who will be responsible for this process?

D3. Does the plan describe a process by which each community will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? *(Requirement 44 CFR §201.6(c)(4)(ii))*

- D3-a. Does the plan describe the process the community will follow to integrate the ideas, information and strategy of the mitigation plan into other planning mechanisms?
- D3-b. Does the plan identify the planning mechanisms for each plan participant into which the ideas, information and strategy from the mitigation plan may be integrated?
- D3-c. For multi-jurisdiction plans, does the plan describe each participant's individual process for integrating information from the mitigation strategy into their identified planning mechanisms?

UPDATES TO THE 2026 LINCOLN COUNTY HAZARD MITIGATION PLAN FOR ELEMENT D

- Language changes have been made, as have formatting changes for ease of the reader.

ELEMENT D: PLAN MAINTENANCE

D1: Is there discussion of how each community will continue public participation in the plan maintenance process?

D1-a. Does the plan describe how communities will continue to seek future public participation after the plan has been approved?

D2: Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a five-year cycle)?

D2-a. Does the plan describe the process that will be followed to track the progress/status of the mitigation actions identified within the Mitigation Strategy, along with when this process will occur and who will be responsible for this process?

D2-b. Does the plan describe the process that will be followed to evaluate the plan for effectiveness? This process must identify the criteria that will be used to evaluate the information in this plan, along with when this process will occur and who will be responsible.

D2-c. Does the plan describe a process that will be followed to update the plan, along with when this process will occur and who will be responsible for the process?

D3. Does the plan describe a process by which each community will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate?

D3-a. Does the plan describe the process the community will follow to integrate the ideas, information and strategy of the mitigation plan into other planning mechanisms?

D3-b. Does the plan identify the planning mechanisms for each plan participant into which the ideas, information and strategy from the mitigation plan may be integrated?

D3-c. For multi-jurisdictional plans, does the plan describe each participant's individual process for integrating information from the mitigation strategy into their identified planning mechanisms?

Public Participation in Plan Maintenance Process

Lincoln County is dedicated to involving the public directly in the continual reshaping and updating of the Hazard Mitigation Plan.

The Hazard Mitigation Planning Team is responsible for the review and update of the Plan. Although they represent the public to some extent, the public will be able to directly comment on and provide feedback about the Plan. All meetings will continue to be open to the public for opportunities to comment on and provide meaningful input on the Plan.

Copies of the Plan will be provided to the municipalities' Local Emergency Management Directors and kept on-hand at all municipal town offices in the County. The existence and location of these copies will be publicized by public notice in the local papers and/or on our website and social media. Contained in the Plan is the address and phone number of Lincoln County EMA Office, which is responsible for keeping track of public comments on the Plan.

Local Directors Meetings, (open to the public) will be utilized at least annually to track Plan implementation progress. This public meeting will provide the public a forum for which the public may express concerns, opinions, or ideas about the Plan. The County EMA Office will publicize and host this meeting.

In Lincoln County, hazard mitigation is far more than a written plan. It is an important part of the overall mission of the Lincoln County Emergency Management Agency (EMA), and is fully integrated into the comprehensive nature of the EMA's emergency management responsibilities.

Most of the EMA's activities and communications emphasize the importance of planning, preparation, mitigation, training, and emergency response. A partial list of EMA's public outreach efforts includes:

- Maintaining and updating the EMA's website;
- Including on the website and social media public information materials;
- Including on the website and social media notice of training opportunities for local public safety personnel;
- Maintaining emergency communications systems;
- Holding meetings and training sessions with local EMA officials;
- Participating in public outreach efforts such as the annual Maine Preparedness Conference, when hosted by MEMA;
- Working with Lincoln County Regional Planning Commission to bring information on sea level rise to local EMA Directors and coordinate on municipal Community Resilience Partnership priority actions.

Lincoln County EMA will also continue to provide advisories on its website and social media when public safety may be impacted by natural hazards.

Method and Schedule for Keeping the Plan Current

The plan maintenance process includes a schedule for monitoring and evaluating the Plan at least every five years, and continued public participation throughout the plan maintenance process. This Plan also includes an explanation of how the County and municipal governments intend to incorporate their mitigation strategies into any existing planning mechanisms they have. See **Element C: Mitigation Strategy** of this Plan for more details on incorporations of this Plan into existing mechanisms.

Eighteen months prior to the Hazard Mitigation Plan update deadline, Lincoln County Emergency Management Agency or an organization/agency on behalf of Lincoln County EMA, will organize a Hazard Mitigation Planning Committee meeting. Lincoln County EMA will invite the public, Town Managers, Selectmen, EMA directors and other interested parties to participate.

The Hazard Mitigation Planning Committee will review existing hazards of concern and determine whether any new hazards were presented throughout the past four years.

The status of current mitigation projects will be updated and new projects will be added as needed. Once all hazards, projects, maps and County information have been updated, the Lincoln County Hazard Mitigation Plan draft will be submitted to MEMA for review and recommendations before the final draft is forwarded to FEMA for conditional certification.

Monitoring the Plan

Progress on the Plan will be monitored via monthly meetings with MEMA and/or local EMAs and following every federally declared disaster. The second quarter Local EMA meeting of each County fiscal year will include a project and risk assessment review. The mitigation plan and project application process will also be addressed at each federal disaster declaration kick-off meeting and will be reinforced via email announcements for workshops and grant application deadlines.

Evaluating the Plan

The Plan is constantly being evaluated through various measures at County and local levels. Annually and after each disaster declaration, Lincoln County EMA will review the hazards in **Element B: Risk Assessment**.

In addition, Lincoln County EMA will contact towns in regards to Form 7 briefings and submittals, workshops on project applications, and for the status on existing projects and the addition of new projects.

Updating the Plan

The Plan will be updated every five years. The method for determining what changes might be necessary will be to review and assess information gathered from disaster declarations, unusual weather events and/or significant changes in science or legislation. As previously described, part of that schedule will be reviews on a monthly basis and after disasters, but in the fourth year of the plan, a more in depth review will take place, and the Plan will be updated accordingly.

Integrating the HMP Update into Local Planning Mechanisms

County government is limited in scope and authority in Maine and does not have the people-power, authority, or fiscal capabilities to guide and control development within the towns in the County. Within Maine, most government authority is with state statutes and rules and with municipal 'home rule' ordinances.

Municipalities in Lincoln County have already incorporated strategies recommended by or consistent with this Plan into local planning mechanisms as discussed in the paragraphs below. By adopting this Plan, each community – as well as Lincoln County – is agreeing to

continue implementation of strategies aimed at mitigating hazards identified in this Plan. As documented in the 2026 HMP Update, municipalities in Lincoln County have a variety of planning and regulatory mechanisms for managing land use at the local level, thereby minimizing the exposure of future development to natural hazards.

In addition the regular public meetings of their select boards or assessors, all towns in Lincoln County hold annual town meetings, which are an integral part of public planning. These meetings allow citizens equal opportunity to communicate their concerns and opinions on the state of the town. The citizens in attendance at these meetings have a vested interest in the town and what/how is funded annually.

Available planning mechanisms at the municipal level, and the extent to which they have incorporated hazard mitigation, include:

- **Local Floodplain Management Ordinances:** All municipalities have joined the National Flood Insurance Program (NFIP) and have adopted floodplain management ordinances aimed at managing development in flood-prone areas. In addition, Monhegan Island Plantation is in the Flood Insurance Program by virtue of being under the regulatory jurisdiction of the State's Land Use Planning Commission (LUPC).
- **Shoreland Zoning Ordinances:** All of the towns in Lincoln County are required to have a shoreland zoning ordinance, whether adopted by the municipality, imposed by the Maine Department of Environmental Protection (DEP), or under LUPC. Shoreland zoning ordinances contain requirements for locating structures outside of known flood hazard areas and/or for complying with the requirement of municipal floodplain management ordinances.
- **Local comprehensive plans** (most Lincoln County municipalities have adopted a comprehensive plan). Comprehensive plans are policy documents that address a wide range of issues affecting the future of the community, and those relating to mitigation, public safety, and environmental protection are intentionally consistent with the strategies contained in this Plan. In general, local comprehensive plans do not include recommendations on specific hazard mitigation projects, although they may contain recommendations that roads and their associated infrastructure be upgraded as funds become available.
- **Capital improvement plans:** Some of the larger municipalities have capital improvement plans; most of the smaller ones do not but they do have local budgeting processes, which are used to examine potential expenditures in detail and establish overall spending priorities.
- **Road maintenance planning efforts.** These may include priorities for local improvements, but not necessarily engineering studies or cost-benefit analyses.

- Emergency management and mitigation planning.
- Fire prevention planning and coordination, including participation in mutual aid agreements and multi-town wildfire training exercises.
- Grant writing: Many of the County's municipalities are active in applying for grants to address municipal priorities.

Refer to **Element C: Mitigation Strategy** for a town-by-town summary of existing authorities, policies, programs, and resources available to accomplish hazard mitigation projects.

The Lincoln County Hazard Mitigation Planning Team identified very few ordinance-related mitigation measures, which were determined to be a low priority for the 2026 Update.

Incorporating Mitigation Strategies & Related Information into Local Planning Mechanisms

County government does not have the authority to control local planning mechanisms. However, the County EMA Director can provide information to local units of government, as well as technical assistance.

After adoption of the Mitigation Plan, the LC EMA Office will assist the municipal officers in implementing their selected mitigation measures and incorporate elements of the LC HMP into other planning mechanisms, where appropriate. The County EMA Office will conduct annual periodic reviews and surveys with the municipal officers and local EMA Directors to determine the status of their measures and planning efforts. The County EMA office will assist the municipalities with the completion of FEMA Pre-Disaster Mitigation and Hazard Mitigation Grant packages.

Explanation of How Local Governments Incorporated Strategies and Other Information

In addition to the planning mechanisms described above, there has been some progress in additional areas, but no known actions in other areas:

- Comprehensive plans – no State money for new plans or updates.
- Emergency management and mitigation planning – limited because of volunteer EMAs and no budgets
- Ordinances – Very little state money for new plans or updates, often through a competitive grant application process through the Community Resilience Partnership
- Grant applications – A few of the County's municipalities have been active in applying for grants to address mitigation issues

The County EMA and all municipal EMAs have continued to advise their respective jurisdictions on pending hazard events, such as winter storms, as well as posted public service announcements in public locations such as municipal offices.

The County EMA has notified municipal EMAs and local officials of hazard mitigation workshops such as those related to the Pre-Disaster and Hazard Mitigation Grant programs; workshops with hazard geo-textiles; and workshops dealing with various sea level rise scenarios and how they may affect specific municipalities.

The responsible agency within each municipality that is responsible for the implementation and completion of each mitigation measure will notify the County EMA Office whenever assistance is needed or whenever a measure is completed. Existing programs such as the municipal road maintenance plan, emergency management program, and local fire prevention programs will be utilized to their greatest extent possible to complete the community's mitigation measure

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ELEMENT E: PLAN UPDATE

PLAN CRITERIA

E1. Was the plan revised to reflect changes in development? *(Requirement 44 CFR §201.6(d)(3))*

- E1-a. Does the plan describe the changes in development that have occurred in hazard-prone areas that have increased or decreased each community's vulnerability since the previous plan was adopted?

E2. Was the plan revised to reflect changes in priorities and progress in local mitigation efforts? *(Requirement 44 CFR §201.6(d)(3))*

- E2-a. Does the plan describe how it was revised due to changes in community priorities?
- E2-b. Does the plan include a status update for all mitigation actions identified in the previous mitigation plan?
- E2-c. Does the plan describe how jurisdictions integrated the mitigation plan, when appropriate, into other planning mechanisms?

UPDATES TO THE 2026 LINCOLN COUNTY HAZARD MITIGATION PLAN FOR ELEMENT E

- Element E in the 2026 Plan Update outlines the criteria of the 2025 Local Mitigation Planning Policy Guide (FP-206-21-002 (Effective 04/11/2025))
- Language changes have been made, as have formatting changes for ease of the reader.

ELEMENT E: PLAN UPDATE

E1: Was the plan revised to reflect changes in development?

E1-a. Does the plan describe the changes in development that have occurred in hazard-prone areas that have increased or decreased each community's vulnerability since the previous plan was approved?

E2: Was the plan revised to reflect changes in priorities and progress in local mitigation efforts?

E2-a. Does the plan describe how it was revised due to changes in community priorities?

E2-b. Does the plan include a status update for all mitigation actions identified in the previous mitigation plan?

E2-c. Does the plan describe how jurisdictions integrated the mitigation plan, when appropriate, into other planning mechanisms?

Reflecting Changes in Development

The 2026 Lincoln County Hazard Mitigation Plan update was revised through careful consideration of each Element, municipality, and the changing hazard response landscape. Changes from the last Plan update are provided at the beginning of each Element, shown in a bulleted list of the Element's cover page.

Change to development in Lincoln County are reflected in population changes, **Element B** about future risk, as well as demographic trends and vulnerability. Such information informed mitigation actions and plans.

All participating jurisdictions in Lincoln County experienced minimal development changes since the 2021 Lincoln County HMP Update. Though no changes in development substantially impacted the jurisdiction's overall vulnerability, please refer to **Element B: Risk Assessment** to understand "Vulnerability of Future Buildings, Infrastructure, and Critical Facilities" and "Assessing Vulnerability: Analyzing Development Trends" for a more detailed assessment.

Progress in Local Mitigation Efforts

The tables within the Mitigation Strategies charts for each municipality in **Element C: Mitigation Strategy** include a 'Status' column that reflects change and/or updates for each mitigation project.

Changing Community Priorities

Municipalities provided lists of projects in order of priority, and some listed additional details on their projects and priorities. This information is reflected under the "Project" column of the Mitigation Strategies charts in **Element C: Mitigation Strategy**. The objective

of mitigation actions is to reduce the long-term risk from natural hazards selected for profiling in the Plan using related ranking scheme detailed in **Element B: Risk Assessment**, “Rating of Natural Hazards”.

Incorporating Mitigation Strategies & Related Information into Local Planning Mechanisms

County government does not have the authority to control local planning mechanisms. However, the County EMA Director can provide information to local units of government, as well as technical assistance.

After adoption of the Mitigation Plan, the LC EMA Office will assist the municipal officers in implementing their selected mitigation measures and incorporate elements of the LC HMP into other planning mechanisms, where appropriate. The County EMA Office will conduct annual periodic reviews and surveys with the municipal officers and local EMA Directors to determine the status of their measures and planning efforts. The County EMA office will assist the municipalities with the completion of FEMA Pre-Disaster Mitigation and Hazard Mitigation Grant packages.

Element D: Plan Maintenance under sections “Integrating the HMP Update into Local Planning Mechanisms” and “Explanation of How Local Governments Incorporated Strategies and Other Information” provide more detail on how jurisdictions have integrated the mitigation plan, when appropriate, into other planning mechanisms.

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ELEMENT F: PLAN ADOPTION

PLAN CRITERIA

F1. For single-jurisdictional plans, has the governing body of the jurisdiction formally adopted the plan to be eligible for certain FEMA assistance? (Requirement 44 CFR §201.6(c)(5))

- *Not applicable for the Lincoln County Hazard Mitigation Plan as this is a multi-jurisdictional plan.*

F2. For multi-jurisdictional plans, has the governing body of each jurisdiction officially adopted the plan to be eligible for certain FEMA assistance? (Requirement 44 CFR §201.6(c)(5))

- F2-a. Did each participant adopt the plan and provide documentation of that adoption?

UPDATES TO THE 2026 LINCOLN COUNTY HAZARD MITIGATION PLAN FOR ELEMENT F

- Element F in the 2026 Plan Update outlines the criteria of the 2025 Local Mitigation Planning Policy Guide (FP-206-21-002 (Effective 04/11/2025) and was previously Element E in the 2021 LC HMP.
- Language changes have been made, as have formatting changes, for ease of the reader.

ELEMENT F: PLAN ADOPTION

F1: For single-jurisdiction plans, has the governing body of the jurisdiction formally adopted the plan to be eligible for certain FEMA assistance?

F1-a. Not applicable for the Lincoln County Hazard Mitigation Plan as this is a multi-jurisdictional plan.

F2: For multi-jurisdictional plans, has the governing body of each jurisdiction officially adopted the plan to be eligible for certain FEMA assistance?

F2-a. Did each participant adopt the plan and provide documentation of that adoption?

Plan Adoption

Copies of the resolution adopted by Lincoln County and municipalities are enclosed in **Appendix G**. Lincoln County adopted the resolution on behalf of the County and the unorganized territories. [Editor's Note: These resolutions will be solicited after submission to FEMA and the Plan earns 'Approval Pending Adoption' (APA) status.]

Jurisdictional Adoption

The 2026 Lincoln County Hazard Mitigation Plan Update is a multi-jurisdictional plan. Jurisdictions who participated in the preparation of this Plan are:

- Alna
- Boothbay
- Boothbay Harbor
- Bremen
- Bristol
- Damariscotta
- Dresden
- Edgecomb
- Jefferson
- Monhegan Island Plantation
- Newcastle
- Nobleboro
- Somerville
- South Bristol
- Southport
- Waldoboro
- Westport
- Whitefield
- Wiscasset
- Lincoln County, on behalf of the Unorganized Territories (Hibbert's Gore, Louds Island, Lincoln County Islands)

APPENDIX A

COPIES OF SIGN-IN SHEETS, MEETING
AGENDAS, AND MEETING MINUTES
FROM PLANNING MEETINGS





Lincoln County

OFFICE OF EMERGENCY MANAGEMENT



Event/Meeting: Local Directors

Facilitator (s): _____

Location: Comm Center

Date: 3/20/15

Time In: 6p

Time Out: 8p

	Name -PRINT	Signature	Town/Agency	Contact Number	Email Address
1.	Emma McEaney		LNEMA		
2.	Frank DeMers		LNEMA		
3.	MICHAEL POSTER		SOMERVILLE	207-742-3354	
4.	Brendan Parker		Dispatch	774-272-2700	
5.	Kevin Sutherland		Newcastle		
6.	Steve O'Brien		DANVERS	203-592-5654	
7.	Julie Casson		Westport	220-3399	
8.	Kyle Sutherland		WALDORF	542-2711	
9.	Pat Voit		CMP	319-9585	Patrick.voit@cmpco.com
10.	Jon Amisault		Somerville	603-235-9549	jon@adamaple.com
11.	John Oakes	online	Westport LC CERT		
12.	Amanda Jacobs	online	Lincoln Health		

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Page 1 of 3

Federal Employees please note: Signing this roster confirms that you are aware that the value of any meals received in conjunction with this event must be deducted from your per diem expense reimbursement request.

Total Participants: _____

TT Hours: _____

Meeting Hours: _____

Total Hours: _____

EMPG: _____

D4H: _____



Lincoln County

OFFICE OF EMERGENCY MANAGEMENT



Event/Meeting: Local Directors

Facilitator (s): _____

Location: Comm Center

Date: 3/20/15

Time In: 6p

Time Out: 8p

	Name -PRINT	Signature	Town/Agency	Contact Number	Email Address
1.	Alexander Ciskowski		Sefferson	413-652-1853	akell3@grazil.com
2.	Laura Graziano		Lincoln County	8822	lgraziano@lcrpc.org
3.	Kathleen Kenny		Red Cross	207 902-2005	kathleen.kenny@redcross.org
4.	Don Gleason	online	Dresden		
5.	Jason Kates	online	Westport+EMA LC CERT		
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Page 2 of 3

Federal Employees please note: Signing this roster confirms that you are aware that the value of any meals received in conjunction with this event must be deducted from your per diem expense reimbursement request.

Total Participants: _____

TT Hours: _____

Meeting Hours: _____

Total Hours: _____

EMPG: _____

D4H: _____



Lincoln County

OFFICE OF EMERGENCY MANAGEMENT

Event/Meeting: Local Directors

Facilitator (s): _____

Location: Comm Center

Date: 3/20/15

Time In: 600

Time Out: 800

	Name -PRINT	Signature	Town/Agency	Contact Number	Email Address
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Total Participants: _____ TT Hours: _____ Meeting Hours: _____ Total Hours: _____ EMPG: _____ D4H: _____



Lincoln County

OFFICE OF EMERGENCY MANAGEMENT
32 High Street, P.O. Box 249
Wiscasset, Maine 04578
Phone: (207) 882-7559 Fax: (207) 882-7550
Emily Huber, Director



MINUTES

Local EMA Directors Meeting
Thursday, January 16, 2025
17:30

Lincoln County Communications Center: 34 Bath Rd, Wiscasset ME 04578

Attendance:

John Oakes – CERT Team Leader
Patrick Voit – CMP Representative
Don Gleason – Select Board, Dresden
Alex Ciskowski – Jefferson EMA
Tara Doe – Lincoln County Communications, Director
Brendan Parker – Lincoln County Communications, Deputy Director
Kevin Sutherland – Newcastle EMA
Jon Amirault – Somerville EMA
Mike Dostie – Fire Chief, Somerville
Kyle Santheson – Waldoboro EMA
Julie Casson – Westport Island EMA
Jason Kates – Westport Island EMA
Steve O'Bryan - Damariscotta EMA
Amanda Jacobs – Lincoln Health
Laura Graziano – Lincoln County Regional Planning
Kathleen Kenny – Red Cross

Entrenchment – Donny Dumont, National Weather Service Warning Coordination Meteorologist

Donny Dumont gave a presentation on the December 2023 and January 2024 Coastal Flooding Storms including review of National Weather Service services and some coastal flooding education. A recording of the presentation is [HERE](#).

Old Business

New Business

Updates from LC EMA

Emily Huber, Director:

- Emily introduced Lincoln County EMA's Preparedness Coordinator, Frank DeMers. Frank will be working with municipalities on updating their EAPs.
- Lincoln County EMA has been impacted by the current freeze of Homeland Security and EMPG (Emergency Management Preparedness Grant) grants. At this time, the office isn't spending any funds from these grants. There is no known timeline for when these funds may become available again, but the office is preparing for when this does occur.



- Lincoln County EMA and Lincoln County Regional Planning has started the Hazard Mitigation Plan process with the plan being due in 2026. EMA and Planning will be working with Local EMA and municipal officials to complete their portions. EMA will be offering drop-in, workshop days on the off months of regularly scheduled Local EMA meetings to provide space and resources for officials.

Teams Update

Critical Partners Briefing

Tara Doe, Lincoln County Communications:

- The Communications Center has hired a class of dispatchers. They are currently going through the training process and are all enthusiastic about their training and new roles.

Upcoming Trainings

- [MEMA Mass Care Disaster/Emergency Sheltering Identification and Survey Course](#) – several days/times offered online via Teams
- [G403, Underserved Populations Preparedness Planning for Rural Responders and Volunteers](#) – 7/16 in Augusta or 7/17 in Skowhegan (registration appears to be temporarily on hold, but you should be able to register soon)
- [AWR-213, Critical Infrastructure Security and Resilience Awareness](#) – 11/18 in Wiscasset
- [MGT315, Conducting Risk Assessments for Critical Community Assets](#) – 1/6-7/26 in Wiscasset
- [MGT414, Critical Infrastructure Resilience and Community Lifelines](#) – 1/8/26 in Wiscasset
- [MGT452, Physical and Cybersecurity for Critical Infrastructure](#) – 1/20/26 in Wiscasset
- [MEMA Training Calendar](#)

Local Updates

Comments for the Good of the Order

Our next meeting will be May 15, 2025, starting at 6pm. The agenda and menu will be sent out prior to the meeting.

Lincoln County EMA and Lincoln County Regional Planning will be in contact with stakeholders regarding the Hazard Mitigation Plan workshop days.

We are looking for somewhere to hold our next meeting. Please reach out if you'd like to host!





Lincoln County

OFFICE OF EMERGENCY MANAGEMENT

Event/Meeting: 5/15/25 Local Directors HMP

Facilitator (s): _____

Location: Comm Center

Date: 5/15/25

Time In: 6p

Time Out: 7p

	Name -PRINT	Signature	Town/Agency	Contact Number	Email Address
1.	Emma McEaney		LNEMA		
2.	Frank Demers		LNEMA		
3.	Steve O'Bryan		DANFORTH	592-5454	STEVEOB@TIDEWATER.NET
4.	Alexander Ciskowski		Jefferson	413-652-1855	akc113@gmail.com
5.	Matthew Kilpatrick		Nobleboro	207-930-9379	NobleboroFirechief@NobleboroFireRescue.org
6.	Kyle Saatheson		WALBORO	207-542-7711	ema@walboromaine.org
7.	Dionysi McGowan		SOUTH BRISTOL	774-245-7177	dionysimcg@gmail.com
8.	Kathleen Kenny		Red Cross	207-902-2005	Kathleen.Kenny@redcross.org
9.	Kevin Sutherland		Newcastle	207-631-1793	Townmanager@newcastlemaine.us
10.	Jason Kates		Westport	660-960-0000	Jason@Kates.org
11.	John Oakes		BB Region	207-350-1674	joakes@Boothbayharbor.org
12.	MICHAEL R. DOSTIE		SOMERVILLE	207-242-3354	MOWERTOOLMAN@AOL.COM

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Page 1 of 2

Federal Employees please note: Signing this roster confirms that you are aware that the value of any meals received in conjunction with this event must be deducted from your per diem expense reimbursement request.

Total Participants: _____

TT Hours: _____

Meeting Hours: _____

Total Hours: _____

EMPG: _____

D4H: _____



Lincoln County

OFFICE OF EMERGENCY MANAGEMENT

Event/Meeting: 5/15/25 Local Directors- HIMP

Facilitator (s): _____

Location: Comm Center

Date: 5/15/25

Time In: 6p

Time Out: 7p

	Name -PRINT	Signature	Town/Agency	Contact Number	Email Address
1.	Bill Witzell	online	Edgecomb		
2.	Emily Huber		LNEMA		
3.	Emily Rabbe		LCRRC		
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D4H: _____



Lincoln County

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32 High Street, P.O. Box 249
Wiscasset, Maine 04578
Phone: (207) 882-7559 Fax: (207) 882-7550
Emily Huber, Director



MINUTES

Local EMA Directors Meeting Thursday, May 15, 2025 18:00

Lincoln County Communications Center: 34 Bath Rd, Wiscasset ME 04578
[Teams Link](#)

Attendance:

Kevin Sutherland – Newcastle EMA
John Oakes – CERT Team Leader/Boothbay, Boothbay Harbor, Southport EMA
Jason Kates – Westport EMA
Alex Ciskowski – Jefferson EMA
Jon Amirault – Somerville EMA
Mike Dostie – Fire Chief, Somerville
Kyle Santheson – Waldoboro EMA
Steve O'Bryan – Damariscotta EMA
Bill Witzell – Edgecomb EMA
Kathleen Kenny – Red Cross
Emily Rabbe – Lincoln County Regional Planning

Entrenchment – Emily Rabbe, Lincoln County Regional Planning:

Emily Rabbe, Director of Lincoln County Regional Planning Commission, did a [presentation on updating Lincoln County's Hazard Mitigation Plan for 2026](#). Emily reviewed the proposed timeline to include the submission to FEMA for review in October 2025 then adoption by municipalities. We are partnering with Planning to ensure that municipalities have the resources they need to complete their portion of the plan. Municipalities will receive two feedback forms for Local EMA Directors and other town officials to complete – one will examine specific areas in their community susceptible to natural disasters or other concerns they may have for the community, the other will examine mitigation strategies municipalities can take to mitigate the effects of natural disasters and provide input on project municipalities and Lincoln County can take to improve hazard mitigation (ex. Local plans or regulations, structure/infrastructure changes, natural systems protection, education and awareness programs, etc). During the 2021 Hazard Mitigation Plan update, all Lincoln County municipalities adopted the plan. By the municipalities' governing officials adopting the Hazard Mitigation Plan, municipalities are eligible to apply for hazard mitigation grants.

Emily reviewed the hazards that were profiled and rated by the Hazard Mitigation Planning team. Of note, pandemic was removed as that is not a current threat, severe winter storms were increased in priority over severe summer storms, and wildfire and drought are tied for 4th place in priority due to their coexistence. The Planning team clarified that severe winter storms does include the fall wind storms.

Old Business:

New Business:

Updates from LNEMA

Emily Huber, Director

- Lincoln County EMA has been working with schools to conduct drills and



evacuations to exercise their EOPs and better understand any potential gaps or other considerations in their plans. Earlier this week, both Wiscasset Middle-High School and Wiscasset Elementary School conducted evacuation drills. They went well. Next week, Great Salt Bay and Damariscotta Fire Department will be conducting an unannounced fire drill at the school. EMA will support in this. We are still looking for evaluators. If you are available to help on 5/22 with an arrival time at the school around 8:15am, please reach out.

- There have been some equipment changes. We have discontinued the use of the command trailer and ambulance. A 2019 sprinter van has been purchased to be the command vehicle and a new trailer has recently been purchased to hold radio equipment, search and rescue gear, and CERT gear.
- There are no updates on the status of FEMA or the impacts that the changes may have at the state, county, and local levels. Homeland security funds for grants already awarded are available again to submit for reimbursement. There hasn't been a notification of funding this year. BRIC is being discontinued.
- Emma will be starting to work on verifying shelters and warming and cooling centers in municipalities.
- Frank has been working on MOUs and funding out if municipalities have the equipment or if they know where it went.
- Discussed the idea of hiring a firm to help update the County EOP and support municipalities in updating theirs. Most are significantly out of date. Due to the expense, EMA would need to look for grant opportunities. Emily expressed that municipalities would need to work alongside EMA and the firm if this was something we were able to do. Those present were in agreement that they are willing to participate in updating their plans if EMA could secure a grant and hire a firm to support this measure.

Teams Update

John Oakes, CERT Team Leader

- Radio equipment is being moved from the ambulance and into the new trailer. CERT continues to conduct monthly meetings and trainings. Some CERT members are working towards search and rescue certification. CERT Basic will be held this winter but hasn't been scheduled. CERT is always looking for new members. Those interested can attend one of the monthly meetings on the 4th Tuesday of each month at 6pm and reach out to him or the EMA office. The location of the meeting changes monthly.

Critical Partners Briefing

Kathleen Kenny, Red Cross

- Kathleen provided flyers to those who attended in person of several Red Cross services and Red Cross Ready Programs for public education and outreach. Kathleen also spoke of the Red Cross' sheltering certification process and clarified that shelters don't need to be Red Cross certified but can be if they choose.

Upcoming Trainings

- [MEMA Mass Care Disaster/Emergency Sheltering Identification and Survey Course](#) – several days/times offered online via Teams
- [Ammonia Safety and Emergency Response Training \(ASERT\)](#) – 8/1 or 8/2 in Bangor



- [AWR-213, Critical Infrastructure Security and Resilience Awareness](#) – 11/18 in Wiscasset
- [MGT315, Conducting Risk Assessments for Critical Community Assets](#) – 1/6-7/26 in Wiscasset
- [MGT414, Critical Infrastructure Resilience and Community Lifelines](#) – 1/8/26 in Wiscasset
- [MGT452, Physical and Cybersecurity for Critical Infrastructure](#) – 1/20/26 in Wiscasset
- [MEMA Training Calendar](#)
- [MEMA Training Bulletin \(May\)](#)

Local Updates

Boothbay, Boothbay Harbor, Southport: John Oakes is the new EM for all three towns. The completion of the Southport Bridge is delayed until mid-June (was previously supposed to be complete by mid-June)

Damariscotta: Work on the back parking lot continues but should be completed soon. The deployable flood wall is being stored at the Town Garage. Damariscotta is working on finding a time to train on the equipment and will be in touch with EMA for others to participate.

Edgecomb: Edgecomb received their FEMA and MEMA reimbursement from the May Day 2023 Storm. The fire station's front door is currently under construction while water damage is being fixed.

Jefferson: Jefferson had a large structure fire on April 25th. Thanks to all the mutual aid partners that helped during the incident. The fire department is working on an after-action to increase preparedness and identify department needs.

Newcastle: Nothing to report.

Nobleboro: Nothing to report.

Somerville: The fire department is working on remodeling the Route 17 station so that the new fire truck will be able to be stored. The truck should be arriving in about a year. They continue to explore grant opportunities for a new fire station. The town office is undergoing major re-structuring due to significant financial concerns. Town officials are exploring options of state assistance due to current state of town office staff/turn over and financials.

South Bristol: Continuing to work with FEMA for January 2024 Storms reimbursement.

Waldoboro: Nothing to report.

Westport Island: Nothing to report.

Comments for the Good of the Order:

Meeting Invites

- Request for more lead-time in meeting reminders
- Meetings will be the 3rd Thursday of the every month until October to work on portions of the Hazard Mitigation Plan *the June meeting will be on 6/12 due to the 19th being a holiday.

Westport Island has offered to host one of the upcoming meetings.

Our next meeting will be June 12, 2025, starting at 6pm for the first Hazard Mitigation Plan workshop at the Comm Center. Local Emergency Managers are highly encouraged to bring stakeholders from their communities to complete the Natural Hazards and Vulnerabilities Surveys. Some ideas on community stakeholders include: local EMs, town managers, water/wastewater superintendents, public works, road commissioners, fire/police chief, utilities directors, etc.



EMA and LCRPC will be sending out the survey around June 1st to be reviewed, and started if desired, prior to the workshop on the 12th. We will also have paper copies available. The workshop will be a time for communities to work collaboratively with their own community stakeholders as well as those from neighboring communities to identify and discuss their identified natural hazards and vulnerabilities.





Lincoln County

OFFICE OF EMERGENCY MANAGEMENT



Event/Meeting: Local Directors - HMP Workshop Facilitator (s): _____

Location: Comms Center Date: 6/12/25 Time In: 6p Time Out: 8p

	Name -PRINT	Signature	Town/Agency	Contact Number	Email Address
1.	Emma McEaney		LNEMA		
2.	Frank DeMers		LNEMA		
3.	Kyle Santhoson		WALBURN	207-542-7711	
4.	John Oakes		BBR		
5.	Dionysi McGowan		South Bristol		
6.	Jon Amicant		Somerville	603 235 9594	
7.	MICHAEL R. DOSTIE		SOMERVILLE		
8.	Donald E. Gleason Jr		Dresden	207.751.0218	
9.	Allen Spinney		South Bristol	207-462-8206	
10.	Emily Rabble		LCRPC		
11.	Kevin Sutherland		Newcastle		
12.	Laura Graziano		LCRPC		

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Lincoln County

OFFICE OF EMERGENCY MANAGEMENT

Event/Meeting: Local Directors - HMP Workshop

Facilitator (s): _____

Location: Comms Center

Date: 10/12/15

Time In: 6p

Time Out: 8p

	Name -PRINT	Signature	Town/Agency	Contact Number	Email Address
1.	Emily Huber		LVEMA	207-215-4201	ehuber@lincounty.me
2.	Alexander Ciskowski		Jefferson	413-652-1855	alc113@gmail.com
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Lincoln County
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32 High Street, P.O. Box 249
Wiscasset, Maine 04578
Phone: (207) 882-7559, Fax: (207) 882-7550
Emily Huber, Director



AGENDA

**Local EMA Directors HMP Workshop
Thursday, June 12, 2025
18:00**

Lincoln County Communications Center: 34 Bath Rd, Wiscasset ME 04578

Attendance:

Kyle Santheson – Waldoboro EMA
John Oakes – Boothbay Region EMA
Dionysi McGowan – South Bristol EMA
Jon Amirault – Somerville EMA
Mike Dostie – Fire Chief, Somerville
Don Gleason – Select Board, Dresden
Allen Spinney – Fire Chief, South Bristol
Alex Ciskowski – Jefferson EMA
Emily Rabbe – Lincoln County Regional Planning
Laura Graziano – Lincoln County Regional Planning

Workshop:

- Laura Graziano from Lincoln County Regional Planning and Lincoln County EMA will be on-hand to support Local Directors and other county stakeholders in completing the [Lincoln County Hazard Mitigation Plan Survey for Municipalities](#). Paper copies will be available during the workshop for those wishing to complete the survey in this format. Local Directors, municipal officials, Select Board members, public works and road commissioners, utility superintendents, fire/EMS/police chiefs, and more are welcome to join the workshop dedicated to collaborating with your town's departments and brainstorming with neighboring communities.
 - o Stakeholders in attendance discussed county-wide actions for each of the identified hazards (flooding, winter storms, summer storms, wildfires, drought). Much of the discussion was around increase public outreach and education on mitigation hazard impacts to residents and visitors alike.
 - o This survey is due July 7th. Another survey will be released shortly after regarding towns' current hazard mitigation projects and projects they've identified as necessary but not underway. We will have another workshop portion at the next Local Directors Meeting on 7/17 at 6pm at the Waldoboro Town Office.

Upcoming Trainings:

- [MEMA Mass Care Disaster/Emergency Sheltering Identification and Survey Course](#) – several days/times offered online via Teams
- [ICS300](#) – 6/16-17 in Bangor (please register by 6/9)
- [An Advanced Introduction to the Standard Response Protocol and the Standard Reunification Method](#) – 6/18 in Caribou
- [ICS400](#) – 6/23-24 in Bangor (please register by 6/9)
- [Ammonia Safety and Emergency Response Training \(ASERT\)](#) – 8/1 or 8/1 in Bangor
- [MGT317, Disaster Management for Public Services](#) – 10/1-2 in Windham



- [AWR-213, Critical Infrastructure Security and Resilience Awareness](#) – 11/18 in Wiscasset
- [MGT315, Conducting Risk Assessments for Critical Community Assets](#) – 1/6-7/26 in Wiscasset
- [MGT414, Critical Infrastructure Resilience and Community Lifelines](#) – 1/8/26 in Wiscasset
- [MGT452, Physical and Cybersecurity for Critical Infrastructure](#) – 1/20/26 in Wiscasset
- [MEMA Training Calendar](#)

Upcoming Lincoln County EMA Meetings and Workshops:

- 7/17, 6pm – Local Directors Meeting and HMP at Waldoboro Town Office Meeting Room (1600 Atlantic Highway, Waldoboro)
- 8/21, 6pm – Local Directors Hazard Mitigation Workshop at Westport Fire Station (644 Main Rd, Westport Island). *Please note: parking and entrance are at the back of the building; the meeting room is on the 2nd floor and does not have an elevator.*
- 9/18, 6pm – Local Directors Meeting and HMP at New Harbor Fire Station (2561 Bristol Rd, New Harbor)





Lincoln County
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32 High Street, P.O. Box 249
Wiscasset, Maine 04578
Phone: (207) 882-7559 Fax: (207) 882-7550
Emily Huber, Director



MINUTES

**Local EMA Directors Meeting
Thursday, July 17, 2025
18:00**

**Waldoboro Town Office Meeting Room: 1600 Atlantic Hwy
[Teams Link](#)**

Dinner: Stone Cove Catering

Attendance:

Kyle Santheson – Waldoboro EMA
Alex Ciskowski – Jefferson EMA
Steve O'Brian – Damariscotta EMA
Mike Dostie – Fire Chief, Somerville
Lisa Jonassen – Select Board, Westport
Bruce Johnston – Bremen EMA
John Oakes – Boothbay Region EMA/CERT Team Leader
Julie Casson – Westport EMA, Deputy
Jason Kates – Westport EMA
Don Gleason – Dresden, EM Consultant
Emily Rabbe – Lincoln County Regional Planning
Laura Graziano – Lincoln County Regional Planning
Curtis Brown – Lincoln County Regional Planning

Entrenchment:

Lincoln County Regional Planning Commission presented on the next stage of updating the Hazard Mitigation Plan – the Municipal Projects List. Local Emergency Managers are encouraged to work cooperatively with other stakeholders in their municipalities to update projects listed in the 2021 HMP update and add any new projects as needed. Projects can include concept or pre-engineering studies and then actual projects. If the project is currently listed and is tabled indefinitely or needs to be removed, please make a note in the timeline column instead of deleting it to avoid clerical error confusion. During the August workshop, there will be time for group discussions among municipalities to work on the Projects List. All are encouraged to attend (local EMs, town administration, road commissioners, fire departments, public works, utility districts, etc.).

Old Business:

Hazard Mitigation Plan Survey (due 7/7)

There has been great participation in the survey. At the time of the meeting, only three (3) municipalities haven't completed it. EMA and Planning will be reaching out to those municipalities individually to support them in completing this survey. If there are other stakeholders in the municipalities who wish to complete the survey, it is still open for responses. Many responses were a result of discussions within the community and one response was submitted. Some towns experienced little interest or buy-in from other stakeholders.

New Business:

Updates from LNEMA



Emily has been attending meetings with the state to better understand what is happening to FEMA and MEMA. There are no significant updates at this time and the future is uncertain aside from some sort of change following hurricane season. Likely, FEMA will be going to minimal staffing mandated by law. Currently, FEMA has stopped all door-to-door engagement with communities following a disaster. Lincoln County EMA is in a good position to absorb more responsibilities until the fate of FEMA becomes clear. Lincoln County EMA continues to work on resource inventory, MOUs, and updating information. Local EMs are encouraged to also do the same. Resources must be exhausted at the local level before resources at the county or state level may be requested – a lesson learned during Monhegan’s power outage. Local EMs are also encouraged to work on building relationships now in case of emergency and talk with local officials and community members about what emergency management is. Lincoln County EMA can support these discussions as requested.

The ambulance and command trailer have been auctioned off. A trailer and sprinter van have been purchased to replace them. CERT and EMA will begin working on building those resources out soon.

Frank provided a brief overview of the LEPC and recruitment for LEPC and the LEPC Work Group. The next LEPC meeting is 10/8 at 9am, location TBD, and the first LEPC Work Group meeting is 8/5 at 1pm at the Lincoln County EMA EOC (32 High St, Wiscasset).

Teams Update

CERT – CERT is looking to schedule the CERT Basic class in late winter/early spring. There has been significant work on structuring leadership with the creation of a Board and development of SOPs. The Board is working on solidifying a plan for the CERT Basic class. Anyone can take CERT Basic even if they aren’t a part of Lincoln County CERT or aren’t interested in becoming a member. There was a discussion on towns having their own CERT, which is possible. Sommerville Fire Department’s Lady Auxiliary has a community outreach team, identified individuals who may need extra support, and phone numbers. Mike just needs to initiate this when needed. SAR and the Communications Team recently did grid search and communications training in Bristol.

Critical Partners Briefing

Planning – Planning is gearing up for another round of grants for the Community Resilience Project. Waldoboro received funding for heat pumps at the Town Office, Westport has received funding for roads and ground water studies, and other towns have received funding for solar or solar-related projects. Somerville and Jefferson are not enrolled. Planning is looking for more towns to enroll in the program. The Community Resilience Project covers a wide range of resilience projects from roads to flooding mitigation studies to vulnerability assessments. Laura from Planning can provide more information and answer any questions.

Upcoming Trainings

- [Ammonia Safety and Emergency Response Training \(ASERT\)](#) – 8/1 or 8/1 in Bangor
- [Maine Volunteer Leadership Conference](#) – 8/6 in Augusta
- [G402, ICS Overview for Senior Officials](#) – 8/25 Online, hosted by LNEMA
- [G402, ICS Overview for Senior Officials](#) – 8/28 (two sessions) Hybrid in Wiscasset, hosted by LNEMA
- [L-1301, Continuity Planning](#) – 9/9-10 in Augusta
- [Piscataquis County EMA Radio Rodeo](#) – 9/20 in Dover-Foxcroft
- [MGT317, Disaster Management for Public Services](#) – 10/1-2 in Windham
- [MGT475, Crowd Management for Sport and Special Events](#) – 10/6-7 in Bangor



- [MGT412, Sport and Special Events Evacuation and Protective Action](#) – 10/9-10 in Bangor
- [Hazards of Butane Hash Oil](#) – 10/26 in Newcastle, hosted by LNEMA
- [AWR-213, Critical Infrastructure Security and Resilience Awareness](#) – 11/18 in Wiscasset
- [MGT315, Conducting Risk Assessments for Critical Community Assets](#) – 1/6-7/26 in Wiscasset
- [MGT414, Critical Infrastructure Resilience and Community Lifelines](#) – 1/8/26 in Wiscasset
- [MGT452, Physical and Cybersecurity for Critical Infrastructure](#) – 1/20/26 in Wiscasset
- [MEMA Training Calendar](#)

Local Updates

Bremen – The Fire Department's 75th anniversary is at the end of August.

Damariscotta – The construction of the Belvedere Rd rotary is delaying traffic significantly. Signage regarding the closure of Belvedere Rd and not Route 1 has increased traffic downtown. The project is expected to be completed in November.

Jefferson – No updates

Somerville – The Town Office turn over has appeared to settled and staff are working on getting caught up and learning the ropes. Only two people have been running the town office. Mike has been called upon to help a lot.

Waldoboro – The new ambulance is in service, and things are going well.

Westport – The Fire Department held a BBQ on 7/10 at the community station. The 65th anniversary of the Fire Department is this month. Jason saw the first draft of the new building recently.

Comments for the Good of the Order:

Several Local EMs have expressed that there's lack of knowledge or confusion within their municipalities regarding emergency management, who their emergency manager is, and what the role of emergency management and managers are in their communities. EMA will include a draft job description to share with municipalities. EMA is happy to provide education and insight to municipal officials and community members as needed.

ICS 300 and 400 have been requested. EMA will be looking to schedule this after the new year.

Upcoming Lincoln County EMA Meetings and Workshops:

- 8/21, 6pm – Local Directors Hazard Mitigation Workshop at CLC YMCA Multipurpose Room (525 Main St, Damariscotta)
- 9/18, 6pm – Local Directors Meeting and HMP at New Harbor Fire Station (2561 Bristol Rd, New Harbor)
- 11/20, 6pm - Local Directors Meeting at Westport Fire Station (644 Main Rd, Westport Island). *Please note: parking and entrance are at the back of the building; the meeting room is on the 2nd floor and does not have an elevator.*





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Phone: (207) 882-7559 Fax: (207) 882-7550
Emily Huber, Director



MINUTES

**Local EMA Directors Meeting
Thursday, July 17, 2025
18:00**

**Waldoboro Town Office Meeting Room: 1600 Atlantic Hwy
[Teams Link](#)**

Dinner: Stone Cove Catering

Attendance:

Kyle Santheson – Waldoboro EMA
Alex Ciskowski – Jefferson EMA
Steve O'Brian – Damariscotta EMA
Mike Dostie – Fire Chief, Somerville
Lisa Jonassen – Select Board, Westport
Bruce Johnston – Bremen EMA
John Oakes – Boothbay Region EMA/CERT Team Leader
Julie Casson – Westport EMA, Deputy
Jason Kates – Westport EMA
Don Gleason – Dresden, EM Consultant
Emily Rabbe – Lincoln County Regional Planning
Laura Graziano – Lincoln County Regional Planning
Curtis Brown – Lincoln County Regional Planning

Entrenchment:

Lincoln County Regional Planning Commission presented on the next stage of updating the Hazard Mitigation Plan – the Municipal Projects List. Local Emergency Managers are encouraged to work cooperatively with other stakeholders in their municipalities to update projects listed in the 2021 HMP update and add any new projects as needed. Projects can include concept or pre-engineering studies and then actual projects. If the project is currently listed and is tabled indefinitely or needs to be removed, please make a note in the timeline column instead of deleting it to avoid clerical error confusion. During the August workshop, there will be time for group discussions among municipalities to work on the Projects List. All are encouraged to attend (local EMs, town administration, road commissioners, fire departments, public works, utility districts, etc.).

Old Business:

Hazard Mitigation Plan Survey (due 7/7)

There has been great participation in the survey. At the time of the meeting, only three (3) municipalities haven't completed it. EMA and Planning will be reaching out to those municipalities individually to support them in completing this survey. If there are other stakeholders in the municipalities who wish to complete the survey, it is still open for responses. Many responses were a result of discussions within the community and one response was submitted. Some towns experienced little interest or buy-in from other stakeholders.

New Business:

Updates from LNEMA



Emily has been attending meetings with the state to better understand what is happening to FEMA and MEMA. There are no significant updates at this time and the future is uncertain aside from some sort of change following hurricane season. Likely, FEMA will be going to minimal staffing mandated by law. Currently, FEMA has stopped all door-to-door engagement with communities following a disaster. Lincoln County EMA is in a good position to absorb more responsibilities until the fate of FEMA becomes clear. Lincoln County EMA continues to work on resource inventory, MOUs, and updating information. Local EMs are encouraged to also do the same. Resources must be exhausted at the local level before resources at the county or state level may be requested – a lesson learned during Monhegan’s power outage. Local EMs are also encouraged to work on building relationships now in case of emergency and talk with local officials and community members about what emergency management is. Lincoln County EMA can support these discussions as requested.

The hambulance and command trailer have been auctioned off. A trailer and sprinter van have been purchased to replace them. CERT and EMA will begin working on building those resources out soon.

Frank provided a brief overview of the LEPC and recruitment for LEPC and the LEPC Work Group. The next LEPC meeting is 10/8 at 9am, location TBD, and the first LEPC Work Group meeting is 8/5 at 1pm at the Lincoln County EMA EOC (32 High St, Wiscasset).

Teams Update

CERT – CERT is looking to schedule the CERT Basic class in late winter/early spring. There has been significant work on structuring leadership with the creation of a Board and development of SOPs. The Board is working on solidifying a plan for the CERT Basic class. Anyone can take CERT Basic even if they aren’t a part of Lincoln County CERT or aren’t interested in becoming a member. There was a discussion on towns having their own CERT, which is possible. Sommerville Fire Department’s Lady Auxiliary has a community outreach team, identified individuals who may need extra support, and phone numbers. Mike just needs to initiate this when needed. SAR and the Communications Team recently did grid search and communications training in Bristol.

Critical Partners Briefing

Planning – Planning is gearing up for another round of grants for the Community Resilience Project. Waldoboro received funding for heat pumps at the Town Office, Westport has received funding for roads and ground water studies, and other towns have received funding for solar or solar-related projects. Somerville and Jefferson are not enrolled. Planning is looking for more towns to enroll in the program. The Community Resilience Project covers a wide range of resilience projects from roads to flooding mitigation studies to vulnerability assessments. Laura from Planning can provide more information and answer any questions.

Upcoming Trainings

- [Ammonia Safety and Emergency Response Training \(ASERT\)](#) – 8/1 or 8/1 in Bangor
- [Maine Volunteer Leadership Conference](#) – 8/6 in Augusta
- [G402, ICS Overview for Senior Officials](#) – 8/25 Online, hosted by LNEMA
- [G402, ICS Overview for Senior Officials](#) – 8/28 (two sessions) Hybrid in Wiscasset, hosted by LNEMA
- [L-1301, Continuity Planning](#) – 9/9-10 in Augusta
- [Piscataquis County EMA Radio Rodeo](#) – 9/20 in Dover-Foxcroft
- [MGT317, Disaster Management for Public Services](#) – 10/1-2 in Windham
- [MGT475, Crowd Management for Sport and Special Events](#) – 10/6-7 in Bangor



- [MGT412, Sport and Special Events Evacuation and Protective Action](#) – 10/9-10 in Bangor
- [Hazards of Butane Hash Oil](#) – 10/26 in Newcastle, hosted by LNEMA
- [AWR-213, Critical Infrastructure Security and Resilience Awareness](#) – 11/18 in Wiscasset
- [MGT315, Conducting Risk Assessments for Critical Community Assets](#) – 1/6-7/26 in Wiscasset
- [MGT414, Critical Infrastructure Resilience and Community Lifelines](#) – 1/8/26 in Wiscasset
- [MGT452, Physical and Cybersecurity for Critical Infrastructure](#) – 1/20/26 in Wiscasset
- [MEMA Training Calendar](#)

Local Updates

Bremen – The Fire Department's 75th anniversary is at the end of August.

Damariscotta – The construction of the Belvedere Rd rotary is delaying traffic significantly. Signage regarding the closure of Belvedere Rd and not Route 1 has increased traffic downtown. The project is expected to be completed in November.

Jefferson – No updates

Somerville – The Town Office turn over has appeared to settled and staff are working on getting caught up and learning the ropes. Only two people have been running the town office. Mike has been called upon to help a lot.

Waldoboro – The new ambulance is in service, and things are going well.

Westport – The Fire Department held a BBQ on 7/10 at the community station. The 65th anniversary of the Fire Department is this month. Jason saw the first draft of the new building recently.

Comments for the Good of the Order:

Several Local EMs have expressed that there's lack of knowledge or confusion within their municipalities regarding emergency management, who their emergency manager is, and what the role of emergency management and managers are in their communities. EMA will include a draft job description to share with municipalities. EMA is happy to provide education and insight to municipal officials and community members as needed.

ICS 300 and 400 have been requested. EMA will be looking to schedule this after the new year.

Upcoming Lincoln County EMA Meetings and Workshops:

- 8/21, 6pm – Local Directors Hazard Mitigation Workshop at CLC YMCA Multipurpose Room (525 Main St, Damariscotta)
- 9/18, 6pm – Local Directors Meeting and HMP at New Harbor Fire Station (2561 Bristol Rd, New Harbor)
- 11/20, 6pm - Local Directors Meeting at Westport Fire Station (644 Main Rd, Westport Island). *Please note: parking and entrance are at the back of the building; the meeting room is on the 2nd floor and does not have an elevator.*





MINUTES

Local EMA Directors HMP Workshop
Thursday, August, 21, 2025
18:00

CLC YMCA, Multipurpose Room: 525 Main St, Damariscotta
[Teams Link](#)

Dinner: Finger Sandwiches

Attendance:

Jason Kates – Westport EMA
Julie Casson – Westport EMA
Alex Ciskowski – Jefferson EMA
Kyle Santheson – Waldoboro EMA
Steve O'Bryan – Damariscotta EMA
Don Gleason – Dresden, EM Consultant
Coreysha Stone – Select Board, Alna
Laura Graziano – Lincoln County Regional Planning
Emily Huber
Emma McKearney
Frank DeMers

Workshop:

- Planning and EMA will be supporting Local EMs and other municipal stakeholders in completing the [Hazard Mitigation Plan Update – Projects List](#). Lincoln County EMA and Planning will support in facilitating conversation between attendees to brainstorm ideas and discuss past, present, and future hazard mitigation projects happening in towns and around the County.
- Any Local EMs or municipal stakeholders who haven't had the chance to complete the [Lincoln County Hazard Mitigation Plan Survey for Municipalities](#) will have the opportunity to complete it during this time. Planning and EMA will be available to answer questions and provide support.
 - o Attendees discussed this previously identified hazard mitigation projects during the 2016 and 2021 Hazard Mitigation Plan updates. Also discussed were newly identified hazard mitigation projects for the current update and potential additional project ideas based on discussions.
 - o The due date for completion of progress for 2016 and 2021 projects and 2026 projects will be 5pm on September 15th. There is a Local Directors meeting scheduled for September 18th where the first draft of the 2026 Hazard Mitigation Plan will be reviewed.

Upcoming Trainings:

- [G402, ICS Overview for Senior Officials](#) – 8/25 Online, hosted by LNEMA
- [AWR-383 Cybersecurity Risk Awareness for Officials and Senior Management](#) – 8/27 in Augusta
- [G402, ICS Overview for Senior Officials](#) – 8/28 (two sessions) Hybrid in Wiscasset, hosted by LNEMA



- [L-1301, Continuity Planning](#) – 9/9-10 in Augusta
- [AWR-148, Crisis Management for School-Based Incidents: Partnering Rural Law Enforcement, First Responders, and Local School Systems](#) – 9/10 in Dover-Foxcroft
- [ICS 300, Intermediate ICS for Expanding Incidents](#) – 9/15-16 in Augusta
- [TIMs \(Traffic Incident Management\)](#) – 9/23 in Jefferson, hosted by LNEMA
- [MGT317, Disaster Management for Public Services](#) – 10/1-2 in Windham
- [MGT475, Crowd Management for Sport and Special Events](#) – 10/6-7 in Bangor
- [ICS 400, Advanced ICS for Complex Incidents](#) – 10/6-7 in Augusta
- [MGT412, Sport and Special Events Evacuation and Protective Action](#) – 10/9-10 in Bangor
- [MGT346, Operations and Planning for All-Hazards](#) – 10/14-15 in Augusta
- [Hazards of Butane Hash Oil](#) – 10/26 in Newcastle, hosted by LNEMA
- [AWR-213, Critical Infrastructure Security and Resilience Awareness](#) – 11/18 in Wiscasset
- [MGT315, Conducting Risk Assessments for Critical Community Assets](#) – 1/6-7/26 in Wiscasset
- [MGT414, Critical Infrastructure Resilience and Community Lifelines](#) – 1/8/26 in Wiscasset
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- [MEMA Training Calendar](#)

Upcoming Lincoln County EMA Meetings and Workshops:

- 9/18, 6pm – Local Directors Meeting and HMP at New Harbor Fire Station (2561 Bristol Rd, New Harbor)
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A photograph of a forest scene. In the foreground, a pine branch with green needles is visible on the left side. The background is filled with out-of-focus autumn leaves in shades of purple, red, and orange. The text is overlaid on the upper right portion of the image.

APPENDIX B

COPY OF 'LINCOLN COUNTY HAZARD
MITIGATION PLAN SURVEY FOR
MUNICIPALITIES' AND COMPLETE LIST
OF SURVEY RESPONSES

Lincoln County Hazard Mitigation Plan Survey for Municipalities

Lincoln County Emergency Management Agency (LCEMA), in partnership with the Lincoln County Regional Planning Commission (LCRPC), is updating the [2021 Lincoln County Hazard Mitigation Plan](#) with a planned adoption date of early 2026. **We are seeking your participation in this Plan update by providing answers to the below questions about your community and the County overall.** *We anticipate this survey will take approximately 10 – 15 minutes to complete.*

The benefit of completing a Hazard Mitigation Plan is eligibility for FEMA Hazard Mitigation grants. For many communities, this can and has amounted to tens of thousands of dollars. With your assistance, the County can more effectively assess your municipality's requirements or needs, or determine the correct mitigation measures that will work for your community. *We strongly encourage you share this survey with others in town (selectboard members, town manager or administrator, public works, road commissioner, and utility districts, for example).*

We appreciate you taking the time to fill out this survey! We will also be contacting you later this summer to update your community's hazard mitigation project lists and we may also contact you with follow up questions to your survey responses.

If you'd prefer to complete this survey in-person, please plan on attending the June 12, 2025 LCEMA Local Directors meeting. This meeting will be dedicated to completing the survey and staff from LCEMA and LCRPC will be on-hand to answer your questions.

If you have questions, please reach out to Emily Huber, LCEMA Director (ehuber@lincounty.me) or Emily Rabbe, LCRPC Executive Director (erabbe@lcrpc.org).

Part 1: Respondent Information

1. Please identify your community (town name) and your role in the community (professional title, committee member, resident).
2. Governance: When does your Select Board, Board of Assessors, or other town leadership regularly meet?
3. Local Contact Information: Please list the name, phone number, email address and physical address of someone(s) in your community that can be contacted about hazard mitigation.

Part 2: Countywide Actions

Please list some potential actions the County could undertake to mitigate the natural disasters listed in the table below and to meet hazard mitigation goals. Examples to consider include: plans or regulations; structure or infrastructure projects; natural systems protection; and education and awareness programs.

Hazard Mitigation Goals by Natural Hazard Type	Potential Countywide Actions
Flooding Goal: Reduce potential damage, injury and loss of life in Lincoln County caused by flooding.	
Winter Storms Goal: Reduce potential damage, injury and loss of life in Lincoln County caused by winter storms (ice, snow, and wind storms).	
Summer Storms Goal: Reduce potential damage, injury and loss of life in Lincoln County caused by summer storms (heavy rainfall events, extreme thunderstorms, hurricanes, tropical depressions, etc.).	
Wildfires Goal: Reduce potential damage, injury and loss of life in Lincoln County caused by wildfires.	
Drought Goal: Reduce potential damage, injury and loss of life in Lincoln County caused by drought.	

Part 3: Town-Specific Risk Assessment

1. Flooding: Please identify areas in your municipality that are susceptible to damages from flooding and/or have had repeated damages due to flooding. Examples may include road overtopping, culvert damages, coastal erosion, etc.
2. Severe Winter Storms: Please identify areas in your municipality that are susceptible to severe winter storms and their impacts (ex: ice jams, windstorms, power outages, blizzard conditions, etc.).

3. Severe Summer Storms: Please identify areas in your municipality that are susceptible to severe summer storms (ex: power outages, heavy rainfall events, tropical depressions/hurricanes, and/or debris removal, for example).
4. Wildfires: Please identify areas in your municipality that are susceptible to wildfires and subsequent property damages.
5. Drought: Please identify areas in your municipality that are susceptible to drought, such as areas with prolonged shortages of water supply, having effects on homeowners, crop or pasture losses, hydroelectric generators, for example.
6. Vulnerable Populations: Please identify vulnerable populations in your community in regards to disaster response. For example, dead-end roads where residents could be isolated, or where older adults or disabled individuals live.

Part 4: Town-Specific Mitigation Actions

1. Flooding: Please list possible actions your community could undertake to mitigate flooding damages. Examples of actions may include local plans or regulations; structure and infrastructure projects; natural systems protection; education and awareness programs.
2. Severe Winter Storms: Please list out possible specific actions for your municipality to undertake to mitigate damages and impacts from severe winter storms. Examples of actions may include local plans or regulations; structure and infrastructure projects; natural systems protection; education and awareness programs.

3. Severe Summer Storms: Please list out possible specific actions for your municipality to undertake to mitigate damages and impacts from severe summer storms. Examples of actions may include local plans or regulations; structure and infrastructure projects; natural systems protection; education and awareness programs.
4. Wildfires: Please list out possible specific actions for your municipality to undertake to mitigate damages and impacts from wildfires. Examples of actions may include local plans or regulations; structure and infrastructure projects; natural systems protection; education and awareness programs.
5. Drought: Please list out possible specific actions for your municipality to undertake to mitigate damages and impacts from drought. Examples of actions may include local plans or regulations; structure and infrastructure projects; natural systems protection; education and awareness programs.

Part 5: Hazard Mitigation Planning and Projects Needs Assessment

As part of the HMP update, LCEMA and LCRPC want to understand the needs of municipalities in implementing hazard mitigation planning and construction projects. Please answer the questions below so we can assess how our agencies may be able to assist your community as you move forward with hazard mitigation and resilience projects.

1. In what way or with what activities is your community currently undertaking on hazard mitigation and climate resilience planning or construction projects?
2. What do you see as your municipality's most pressing hazard mitigation and climate resilience issues?
3. Does your community currently have goals or priorities to achieve on these topics? What are they and how were they developed? Timeframe for implementation?

4. Do you have projects you would like to complete or be engaged in but you cannot? What barriers exist to accomplishing any of this work (current or desired) effectively?

5. What assistance from LCEMA or LCRPC could be useful to your community in implementing your hazard mitigation and climate resilience goals? This could include trainings, educational workshops, added project capacity, identifying funding sources, etc.



Emily Rabbe <erabbe@lcrpc.org>

Hazard Mitigation Plan Survey for Municipalities and Workshop Agenda

Emma McKearney <emckearney@lincounty.me>

Mon, Jun 9, 2025 at 2:59 PM

To: LC Local Directors <lcllocaldirectors@lincounty.me>, LC TOWNS <ltowns@lincounty.me>

Cc: Emily Huber <ehuber@lincounty.me>, Emma McKearney <emckearney@lincounty.me>, "Igraziano@lcrpc.org" <Igraziano@lcrpc.org>, "cbrown@lcrpc.org" <cbrown@lcrpc.org>, "erabbe@lcrpc.org" <erabbe@lcrpc.org>

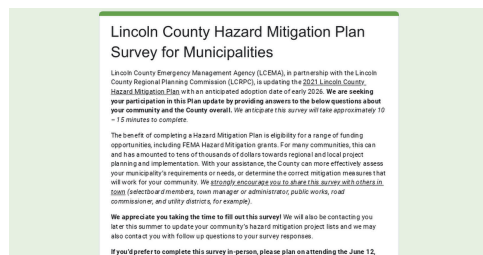
Good afternoon, all,

Lincoln County EMA, in partnership with the Lincoln County Regional Planning Commission (LCRPC), is updating the 2021 Lincoln County Hazard Mitigation Plan with an anticipated adoption date of early 2026. **We are seeking your participation in this Plan update by providing answers to the below questions about your community and the County overall.** *We anticipate this survey will take approximately 10 – 15 minutes to complete.*

The benefit of completing a Hazard Mitigation Plan is eligibility for a range of funding opportunities, including FEMA Hazard Mitigation grants. For many communities, this can and has amounted to tens of thousands of dollars towards regional and local project planning and implementation. With your assistance, the County can more effectively assess your municipality's requirements or needs, or determine the correct mitigation measures that will work for your community. We strongly encourage you to share this survey with others in town (selectboard members, town manager or administrator, public works, road commissioner, and utility districts, for example).

We appreciate you taking the time to complete the survey. If you'd prefer to complete this survey in person, please plan on attending our HMP workshop on June 12th at 6pm at the Lincoln County Comms Center in [Wiscasset \(34 Bath Rd\)](#). This workshop will be dedicated to answering questions, completing the survey, and collaborating and brainstorming with other town departments and municipalities. We will have paper copies available for those who wish to complete the survey by hand. We highly encourage in-person attendance to the workshop. However, if you need a Teams link to attend virtually, please reach out to us so we can get you one!

Please click below for the survey. A link is also included in the workshop agenda.



Lincoln County Hazard Mitigation Plan Survey for Municipalities

Lincoln County Emergency Management Agency (LCEMA), in partnership with the Lincoln County Regional Planning Commission (LCRPC), is updating the 2021 Lincoln County Hazard Mitigation Plan with an anticipated adoption date of early 2026. We are seeking your participation in this Plan

docs.google.com

Here are the location for our next few meetings:

7/17, 6pm – Local Directors Meeting and HMP at **Waldoboro Town Office Meeting Room (1600 Atlantic Highway, Waldoboro)**

8/21, 6pm – Local Directors Hazard Mitigation Workshop at **Westport Fire Station (644 Main Rd, Westport Island)**. *Please note: parking and entrance are at the back of the building; the meeting room is on the 2nd floor and does not have an elevator.*

9/18, 6pm – Local Directors Meeting and HMP at **New Harbor Fire Station (2561 Bristol Rd, New Harbor)**

Have a great week, everyone. See you Thursday.

Emma L. McKearney

Deputy Director



**PO Box 249
Wiscasset, ME 04578**

**Office: (207) 882-7559
Cell: (207) 837-3423
Fax: (207) 882-7550**



Emily Rabbe <erabbe@lcrpc.org>

HMP Survey Reminder

Emma McKearney <emckearney@lincounty.me>

Wed, Jun 25, 2025 at 10:27 AM

To: LC Local Directors <lcllocaldirectors@lincounty.me>, LC TOWNS <ltowns@lincounty.me>

Cc: Emily Huber <ehuber@lincounty.me>, "erabbe@lcrpc.org" <erabbe@lcrpc.org>, "lgraziano@lcrpc.org" <lgraziano@lcrpc.org>, "cbrown@lcrpc.org" <cbrown@lcrpc.org>

Good morning, all,

This is a reminder of the Hazard Mitigation Plan Survey for Municipalities. The link to the survey is below. After receiving some feedback, participants are now able to receive a copy of their submitted survey and go back into the survey to make edits/additions. We are asking that the survey be completed by **July 7**. At this time, we have only received 6 responses with four towns represented.

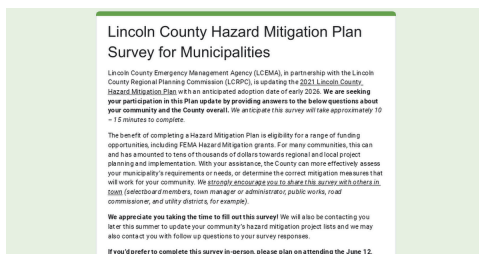
The benefit of completing a Hazard Mitigation Plan is eligibility for a range of funding opportunities, including FEMA Hazard Mitigation grants. For many communities, this can and has amounted to tens of thousands of dollars towards regional and local project planning and implementation. With your assistance, the County can more effectively assess your municipality's requirements or needs, or determine the correct mitigation measures that will work for your community. We strongly encourage you to share this survey with others in town (selectboard members, town manager or administrator, public works, road commissioner, and utility districts, for example).

If a paper version if more your speed, please reach out so we can send you the document.

In the next week or so, we will be sending out the project materials list to be reviewed. We will dedicate time during our Local Directors meeting on 7/17 to complete this, similar to our workshop last month. It will also be another opportunity to ask questions and have discussions as a group to bounce ideas off of.

Most importantly, if you have any questions about the current survey, the process, or the upcoming projects list, or anything else, please reach out. We are happy to answer any questions or meet one-on-one if needed!

Lincoln County Hazard Mitigation Plan Survey for Municipalities



Lincoln County Emergency Management Agency (LCEMA), in partnership with the Lincoln County Regional Planning Commission (LCRPC), is updating the 2021 Lincoln County Hazard Mitigation Plan with an anticipated adoption date of early 2026. We are seeking your participation in this Plan update by providing answers to the below questions about your community and the County overall. We ~~do~~ <https://docs.google.com> anticipate this survey will take approximately 10 – 15 minutes to complete. The benefit of completing a Hazard Mitigation Plan is eligibility for a range of funding opportunities, including FEMA

Hazard Mitigation grants. For many communities, this can and has amounted to tens of thousands of dollars towards regional and local project planning and implementation. With your assistance, the County can more effectively assess your municipality's requirements or needs, or determine the correct mitigation measures that will work

Here are the location for our next few meetings:

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9/18, 6pm – Local Directors Meeting and HMP at **New Harbor Fire Station (2561 Bristol Rd, New Harbor)**

Have a great day. Stay cool again today!

Emma L. McKearney
Deputy Director



PO Box 249
Wiscasset, ME 04578

Office: (207) 882-7559
Cell: (207) 837-3423
Fax: (207) 882-7550

Part 1: Respondent Information		1. Introductions: Please identify your community (town name) and your role in the community (professional title, committee member, resident).		3. Local Contact Information: Please list the name, phone number, email address and physical address of someone(s) in your community that can be contacted about hazard mitigation.		1. Flooding: Goal: Reduce potential damage, injury and loss of life in Lincoln County caused by flooding.		2. Winter Storms: Goal: Reduce potential damage, injury and loss of life in Lincoln County caused by winter storms (ice, snow, and wind storms).		3. Summer Storms: Goal: Reduce potential damage, injury and loss of life in Lincoln County caused by summer storms (heavy rainfall events, extreme thunderstorms, hurricanes, tropical depressions, etc.).		4. Wildfires: Goal: Reduce potential damage, injury and loss of life in Lincoln County caused by wildfires.		5. 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Examples of actions may include local plans or regulations; structure and infrastructure projects; natural systems protection; education and awareness programs.		1. In what way or with what activities is your community currently undertaking on hazard mitigation and climate resilience planning or construction projects? (Examples include considering sea level rise and increased flooding events in your bridge/culvert/road repairs and replacements.).		2. What do you see as your municipality's most pressing hazard mitigation and climate resilience issues?		3. Does your community currently have goals or priorities to achieve on these topics? What are they and how were they developed? Timeframe for implementation? (Examples: community action planning, vulnerability assessments, priority action setting for enrollment in the State's Community Resilience Partnership.).		4. Do you have projects you would like to complete or be engaged in but you cannot? What barriers exist to accomplishing any of this work (current or desired) effectively? (Examples: staff capacity, funding, navigating the grant process.).		5. What assistance from LCEMA or LCRPC could be useful to your community in implementing your hazard mitigation and climate resilience goals? (This could include trainings, educational workshops, added project capacity, identifying funding sources, etc.).																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Westport Island EMA director.	Yes		Jason Kates ema@wvfd.me +1-207-888-0070														West Shore Road. Post office road.											We are working on the initial planning to fix Post Office Road and West Shore Road.			Adding additional cisterns to allow for local dry hydrants.		We are working on a grant to address issues on West Shore Road.	West Shore Road.			Identifying funding sources would be very helpful.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Dresden I Selectperson & EM consultant	Every 2 weeks		Larry Call, 207-751-4751, firechief@dresdenme.org	Response plans and equipment (e.g., barricades & signage for road closures, john boat & vests, ropes & hooks, etc.)	Assessments of likely risk areas within town, response equipment & signage	Assessments of likely risk areas within town, response equipment & signage	Assessments of likely risk areas within town, determination of recommended response equipment	TBD	Same as previous section but town-specific	Same as previous section but town-specific, must include charging/warming center plans	Same as previous section but town-specific, must include charging/cooling center plans	Same as previous section but town-specific, must include likely staging & mutual aid agreements	TBD	Planning - Identify any senior housing/centers, resident-shared identifications (limited PII - personally identifiable information), mapping, procedures/protocol (including early actions for potential evacuations & service animal/pet care	TBD	TBD	TBD	TBD	TBD	TBD	No official planning or considerations	Identification of disabled and senior residents and evacuation procedures (including communications and mobilization	Nothing formal or official	The aforementioned examples include staff capacity, funding, identification & navigation of grants & grant process, and storage/staging	All of the above - build online & accessible repositories																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Alna EMA	Every other thursday		Tom mckenzie 4344666944	Educate people about flood zones	Work with cmp to cut potential hazards in summer	Just stay on top of potential weather events	Educate people	Educate people	194 next to river	Golden ridge rd	Golden ridge rd	All	None	Older individuals all over town	Educate	Educate	Educate	Educate	Educate	Educate	Requesting grants	Flooding on 194	None	None	Educating town pop																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Wiscasset EMS Chief	Every other Tuesday		Rob Bickford 207-882-8210	Unsure	Unsure	Unsure	Unsure	Unsure	our waterfront the many small brooks and streams that normally are not engorged with storm water and run off	all parts of the area	all parts of the areas	anywhere there is a wood structures or heavily wooded areas that are not well maintained	unsure	We have an elderly population that may require assistance with being moved away. We will have a large elderly housing facility that may struggle to get it if the residence to safety if it's a situation that is not shelter in place.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

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Drought: Goal: Reduce potential damage, injury and loss of life in Lincoln County caused by drought.		1. Flooding: Please identify areas in your municipality that are susceptible to damages from flooding and/or have had repeated damages due to flooding. (ex: road overtopping, culvert damages, coastal erosion, etc.).		2. Severe Winter Storms: Please identify areas in your municipality that are susceptible to severe winter storms and their impacts (ex: ice jams, windstorms, power outages, blizzard conditions, etc.).		3. Severe Summer Storms: Please identify areas in your municipality that are susceptible to severe summer storms (ex: power outages, heavy rainfall events, tropical depressions/hurricanes, and/or debris removal, etc.).		4. Wildfires: Please identify areas in your municipality that are susceptible to wildfires and subsequent property damages.		5. Drought: Please identify areas in your municipality that are susceptible to drought, such as areas with prolonged shortages of water supply, having effects on homeowners, crop or pasture losses, hydroelectric generators, for example.		6. Vulnerable Populations: Please identify vulnerable populations in your community in regards to disaster response. (ex: dead-end roads where residents could be isolated or where older adults or disabled individuals live.)		1. Flooding: Please list possible actions your community could undertake to mitigate flooding damages. Examples of actions may include local plans or regulations; structure and infrastructure projects; natural systems protection; education and awareness programs.		2. Severe Winter Storms: Please list out possible specific actions for your municipality to undertake to mitigate damages and impacts from severe winter storms. 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Examples of actions may include local plans or regulations; structure and infrastructure projects; natural systems protection; education and awareness programs.		1. In what way or with what activities is your community currently undertaking on hazard mitigation and climate resilience planning or construction projects? (Examples include considering sea level rise and increased flooding events in your bridge/culvert/road repairs and replacements.).		3. Does your community currently have goals or priorities to achieve on these topics? What are they and how were they developed? Timeframe for implementation? (Examples: community action planning, vulnerability assessments, priority action setting for enrollment in the State's Community Resilience Partnership.).		4. Do you have projects you would like to complete or be engaged in but you cannot? What barriers exist to accomplishing any of this work (current or desired) effectively? (Examples: staff capacity, funding, navigating the grant process.).		5. What assistance from LCEMA or LCRPC could be useful to your community in implementing your hazard mitigation and climate resilience goals? (This could include trainings, educational workshops, added project capacity, identifying funding sources, etc.).																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Damariscotta, Fire Chief	1st and 3rd Wednesdays	John Roberts, 207-380-6880, jroberts@damariscotta.maine.gov, 67 Shamrock Ln, Damariscotta, ME 04543	Assessment of vulnerable areas, and then work with local officials to investigate plans for long term construction and emergency response.	Work with local EMA officials to come up with regional shelters that make sense for localized communities when roads are expected to be closed throughout the area. Stockpile necessary items in these regions so that there is not reliance on transportation to get through a few days.	Work with local EMA officials to come up with regional shelters that make sense for localized communities when roads are expected to be closed throughout the area. Stockpile necessary items in these regions so that there is not reliance on transportation to get through a few days.	Education with landowners on how to best manage their land and reduce the risk of wildfires, and help prevent them from spreading to structures if/when they occur.	Not sure	Downtown - back parking lot, a section of Back Meadow Road, Church Street at Castner Brook - also the Main Street culvert for Castner Brook.	Lessner Road is historically the worst, then Back Meadow Road and Egypt Road, followed by camp roads off these roads	Hospital complex, downtown area, houses relying on sump pumps	The areas outside of the commercial district	Farm on the old Phillips property on US Route One	Numerous dead-end camp roads and driveways off from secondary roads.	Back parking lot drainage improvements and flood wall design.	Opening shelter for extended power outages.	Opening shelter for extended power outages.	Attack the fire, call in mutual aid resources and state resources.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

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Monhegan Plantation - Deputy EMA Director	2nd Tuesday of month (or in same week) typically	Jessica Stevens, 207-691-7390, emaj@monheganplantation.com, PO Box 322, 105 Monhegan Avenue, Monhegan, ME 04852	-redesign use of flood-prone areas, install larger drainage under roads	-more pro-active tree trimming along roadways	-improve drainage before needed	-build incentives into culture that encourage youth to participate in fire prevention work and firefighting work	teach & practice water and power conservation in all educational settings from the youngest age	-Monhegan Breakwater -Monhegan Wharf -Shoreline of Monhegan Harbor, particularly in the vicinity of Fish Beach and Swim Beach -Monhegan Breakwater - Monhegan Wharf - Bog Meadow Aquifer - Village area, in particular between Monhegan Harbor and Bog Meadow Aquifer from Fish Beach Lane to Swim Beach Lane (Reference: 12/31/19 Resiliency Study by Baker Design Consultants) -Hill in area of Post Office on Monhegan Avenue	-Monhegan Breakwater -Monhegan Wharf -Shoreline of Monhegan Harbor, particularly in the vicinity of Fish Beach and Swim Beach -Monhegan Breakwater - Monhegan Wharf - Bog Meadow Aquifer - Village area, in particular between Monhegan Harbor and Bog Meadow Aquifer from Fish Beach Lane to Swim Beach Lane (Reference: 12/31/19 Resiliency Study by Baker Design Consultants) -Hill in area of Post Office on Monhegan Avenue	-All Portions of Monhegan Island (given size and local winds), including: Monhegan village area 350 acre private land trust that borders Monhegan Village Monhegan Plantation Power District's Power Plant (Lighthouse Hill Road) Monhegan Plantation Water Department's Pump Station (Water Lane) & Holding Tanks (Tower Lane) Monhegan Museum (Lighthouse Hill Road), including historic artifacts & art collection	-Bog Meadow Aquifer – Monhegan Plantation Water Department (public water supply serving majority of residences and businesses) -ice Pond (water source for fire suppression) -various dug wells in, on Horn's Hill Road, along the Bog Meadow Aquifer perimeter, & along Black Head Road (residences & water source for fire suppression) -majority of home gardens & Community Garden (crop loss) -Monhegan Plantation Power District Power Station, Monhegan Museum, and residences and other utilities atop Lighthouse Hill where gravity feed public water supply is less effective for all uses, but esp. fire suppression needs	-Extend & Elevate or Relocate/Redesign Breakwater -Elevate & Stabilize Monhegan Wharf surface -Floodproof jib hoist cranes on Monhegan Wharf -Redesign Wharf Ramp to maintain integrity in flooding event -Install Rip Rap to armor Monhegan Freight Shed -Obtain engineers evaluation of any other vulnerabilities needing to be addressed at Monhegan Wharf due to Sea Level Rise, increased intensity of coastal storms, and other causes of coastal flooding -Use Education & Awareness Program to communicate flooding hazard and costs to Community -Employ Flood Prevention between Bog Meadow Aquifer & Monhegan Harbor (based on study recommendations, but may be cost prohibitive) 1) Installing tidal check valves & subsurface stormwater improvements including resetting culvert and installing catch basin, outfall pipe and riprap and elevate nearby structures 2) Elevate & Stabilize Monhegan Avenue roadway & corridor and/or construct flood wall and opening gate -Replace/Upgrade culverts at Monhegan Avenue/Tribler Road Intersection & Drainage along Monhegan Avenue -Improve Monhegan Plantation gravel storage (Tribler Road) to increase capacity and access for storage of emergency supply of material used on roads for speedy emergency repairs that could prevent additional damage in subsequent flooding events (improvement of drainage not realistic in locations such as Hill in area of Post Office on Monhegan Avenue, but rapid repair or temporary installation of swale could reduce overall damage)	-Improve Breakwater effectiveness to reduce wave impacts on Monhegan shoreline and infrastructure, esp. Monhegan Wharf, as well as barge access as Fish Beach -Explore alternative engineering designs that make Monhegan Wharf resilient when flooded (accepting risk for some level of wharf non-access during extreme weather events) vs. existing designs for height increase that presents new daily access issues particularly for local boats/freight movement and pedestrian traffic -Identify erosion control measures and other shoreline modifications within the laws & regulations which could be employed in Monhegan Harbor, particularly in the vicinity of Fish Beach and Swim Beach, to sustain the shoreline long-term -Redesign Swim Beach Lane road way and intersection with Monhegan Avenue as well as, parallel Bog Meadow Aquifer outlet to be resilient during flooding events and to allow debris removal needs to be reduced -Property Owner Education re: pro-active clearing of dead and dying trees near roadways -Collaborate on hiring of mainland-based tree cutting/clearing services/barge to address reduction of dead trees in efficient way where beyond local capacity	-Improve Breakwater effectiveness to reduce wave impacts on Monhegan shoreline and infrastructure, esp. Monhegan Wharf, as well as barge access as Fish Beach -Explore alternative engineering designs that make Monhegan Wharf resilient when flooded (accepting risk for some level of wharf non-access during extreme weather events) vs. existing designs for height increase that presents new daily access issues particularly for local boats/freight movement and pedestrian traffic -Collaboration with Monhegan Associates land trust to identify high risk areas, mitigation activities and, when appropriate, increase affordable access to cutting forestry management services to landowners -Increase year-round population of residents in age 20-30 demographic	-upgrade power system to be resilient and sustainable -identify alternative water sources & plan for access -install/upgrade pumps, well points, and water quality equipment to maximize efficiency of water system -evaluate water company operations and management of fee increases to ensure long-term financial stability -education and awareness programming, esp. among visitors re: water conservation -identify plausible dry hydrant locations that will remain functional in drought conditions, including saltwater sources (8 shift Fire Dept. capabilities to make use of any new water sources) -determine if use of grey water can be employed in any significant ways -retrofit Water Storage Tanks atop Lighthouse Hill to improve fire suppression options to nearby structures -explore and then educate community about practical water conservation measures working in other drought-prone areas of the world	-Studies for redesign of Breakwater & Wharf -Reorganization of Water Department	-Lack of youth in the community to help identify and carry out solutions.	Yes. Details can be provided at later date.	Yes, but staff capacity is the greatest barrier and this is mainly due to lack of housing opportunities.	More education about creative solutions successfully implemented in remotelocations around the world.																					
Town of Somerville– EMA Director & Tax Collector	First and third Wednesday of the month	Jon Amirault, 110 Cabin Road, Somerville, jon@aaapple.com 603-235-9549	Old Week's Mill dam on Colby road is in dubious condition, failure would cause washout of the culvert under Colby road and the water upstream is relied upon by several local fire departments. In general: Culvert upgrades in general. Better signage for evacuation routes and notification systems. Drainage systems and beaver control.	Communication with residents and partners (CMP), tree removal/cutting, storm-guard wire upgrades.	Culvert improvements, tree trimming. Batter lending, food delivery or spoilage controls, same concerns as #2 as far as downed power lines.	Controlled burns, improve/maintain fire roads, brush chipping (state forestry partnership?), public awareness/education.	Plan for drinking water and fire fighting water sources.	Frye Road, Dodge Road, Jones Road	All	Crummet Mountain, Jones, Somerville, Hewett roads: Risks include culvert washouts and road overtopping. Colby Road dam same. Frye and Dodge (private roads) prone to stranded populations when roads overtop or washout.	Crummet Mountain Road is our highest risk.	Fry Road + Dodge road (private roads but prone to stranded areas during floods.	Beaver control, dam/watershed restoration on S Colby, culvert improvements	Improve fire roads, brush clearing, controlled burns	Giving away water at the fire station.	Hoping for state or federal money to pay for mitigation	Potential wildfires around Crummet Mountain Road are our biggest threat.	We have no money for any of that.	Colby Road dam project. Barriers are that it is the source of a local feud about the amateur dam repair attempts, fish habitat, and the water reserved by the dam is used by several local fire departments to fill their tanks.	Funding.																					
South Bristol	1st, 2nd, 3rd Thursday of month	Dionysi McGowan 774-245-7177	Bridge to Maine Medical Hospital in Damariscotta	Unknown	unknown	maintaining records of wildland fire-trained firefighters to call when needed.	unknown	Area called the 'bar' on Christmas Cove (2378 & 129 South). Low roadway with coast on both sides.		Consistent power outages with CMP lines. Seems as if trimming/clearing may be needed and a better routing of lines and breakers so all in southern South Bristol do not lose power every time a north South Bristol outage occurs	power outages with CMP lines. Seems as if trimming/clearing may be needed and a better routing of lines and breakers so all in southern South Bristol do not lose power every time a north South Bristol outage occurs	many dead-end roads and single land roads. Town is pushing for identification (address signs) for faster emergency responses and has list of elderly in town.	we have repaired and reinforced area of floodings damaged in 2024 winter storm. Unknown what can reasonably be done for the area called 'the bar' on Christmas Cove	we have repaired and reinforced area of floodings damaged in 2024 winter storm. Unknown what can reasonably be done for the area called 'the bar' on Christmas Cove	we have repaired and reinforced area of floodings damaged in 2024 winter storm. Unknown what can reasonably be done for the area called 'the bar' on Christmas Cove	Volunteer fire department has added individuals to its membership and increased training in wildland fire and received Forestry certification	unknown	we have repaired and reinforced area of floodings damaged in 2024 winter storm. Unknown what can reasonably be done for the area called 'the bar' on Christmas Cove	likely funding and a proper, if any, reasonable solution for the area called 'the bar' on Christmas Cove which is a lower road with coast on both sides.	a list for funding sources that may be available. Links to County webpage with emergency alerts/warnings when activated.																					
Erin Bean Wiscasset EMS Chief	Every other Tuesday	Erin Bean, EMSDIRECTOR@wiscasse.org, 207-882-8204/ Rob Bickford Fire Chief, firechief@wiscasset.org			The waterfront, sewer department	The waterfront small roads and route one.	Same above	small dead end roads and large areas.	Same as above	Same as above		Same as above																													
Whitefield Vice Chair Selectboard	biweekly unless needed between meetings																																								
Whitefield, Select Board Chair	Every other Tuesday evening	Seth Bolduc, sethb@bolduc@gmail.com, 207-619-0311	Stream Smart crossings, upgrade small culverts to more appropriate sized and modern construction		Some gravel road erosion and some road damage due to culvert overflow	Power outages are extremely common, especially off the main roads. These can last for several days				Lots of forest in Whitefield. Forestry logging operations can be hit-or-miss in whether or not they leave behind risky debris	last 2 remaining dairy farms in Lincoln county are in Whitefield. I'm not sure how they experience drought, but it is a concern.	Lots of older, residents who live alone. It's unclear to me what kind of support network these folks have, and what we would do if we needed to reach (contact or evac) them in an emergency				active roads committee seems to have a plan for road work and keeps a good eye on culverts, as volunteers and with a modest budget, they can only do so much		It would be great to have a community outreach organization with a plan and method to reach (communicate or evac) a lot of people, especially elderly, at high health risk, or isolated. It's a tremendous staffing and logistical issue																							
Scott Sutter, Bristol Fire Chief	1st and 3rd Wednesday at 6 at Town Office	Scott Sutter, 682-8115	raise buildings out of flood zone, limit building in flood zones for new/rebuilds	tree trimming, prep to be without power for a while (education, generators)	tree trimming, education on being without power for a while	chipping, clearing underbrush, education on safe burning practices	water conservation	all of Bristol's coast (specifically Rt 32 in Chamberlain and the Point) -roads and homes (primary and secondary)		due to the ocean, we get more ice and mix - further inland in Bristol can feel like we get two different storms. winter storms also impact secondary road access. elderly population	the Point - Cliff Rd has a lot of dead slash and fallen trees that haven't been taken care of. appears to dry up there first. no fresh water access (ice pond is closest), even difficult to access salt water	personal wells going dry - certain areas have a lot of iron in their water, some salt infiltration	overall elderly population, lots of dead ends, limited access to a lot of homes (especially during the winter), some limitations to town if there are closures on Rt 32 or 130	state increasing buildings being built/rebuilt higher than before, raises roads (Rt. 32), heartier road construction, prepare people (when to evacuate, have a plan), identify and label evacuation route	building regulations, EOP to have provision regarding influx of people during the summer and visitors who may need education on emergencies that happen in the area during the summer	public education (when/how to burn, clearing properties, camp fires)	public education (water conversation)	vulnerability assessment of coast line (homes), climate resiliency project	unknown	public education (especially summer people) - staff capacity, funding, navigating grant process	trainings, educational workshops (biggest priority), project capacity, identifying funding sources																				

APPENDIX C

PUBLIC ANNOUNCEMENTS AND NOTICES
FOR PARTICIPATING IN HMP UPDATE





Hazard Mitigation



There is no time like the
present to make a plan for
your family or community.
Click the photo to start
planning today!

Hazard Mitigation Lincoln County Hazard Mitigation Plan 2026 HMP Plan Update and Resources

Hazard Mitigation Plans, submitted and approved by FEMA, help states, counties, and municipalities identify vulnerable areas and populations that are particularly susceptible to severe impacts from hazards. By completing a Hazard Mitigation Plan, and regularly updating it, states, counties, and municipalities become eligible for funding for certain non-emergency disaster assistance and mitigation projects. This funding can be used to address previously developed mitigation strategies during the Hazard Mitigation Plan process.

Lincoln County has had a Hazard Mitigation Plan since 2016 and has completed a plan update every 5 years since the original plan was created. This has prompted Lincoln County towns and government to have regular conversations about the hazards, impacts, and mitigation plans each of our 19 towns experience. With the funding available to Lincoln County and its towns due to a

consistently active Hazard Mitigation Plan, many municipalities have taken advantage of this increased funding to start, and complete, hazard mitigation projects before an emergency or disaster.

2026 HMP Update: Lincoln County EMA and Lincoln County Regional Planning Commission (LCRPC) have been working with Local Emergency Managers and municipal officials in completing a variety of tasks since the Spring of 2025. Stakeholders have been asked to identify hazards in their community and mitigation efforts that could be taken or are planning to occur. [HERE is the Lincoln County Hazard Mitigation Plan Survey for Municipalities.](#)



Lincoln County EMA

P.O. Box 249, Wiscasset, Maine 04578-0249

Office: [207-882-7559](tel:207-882-7559)

Fax: 207-882-7550

Our office is located at the Lincoln County Court House, 32 High Street in Wiscasset, Maine

Regular Office Hours are: Monday through Friday 08:00 am to 04:30 pm.

lincolncountyema@lincounty.me

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The LCRPC INTERPRETS!



A NEWSLETTER FROM THE LINCOLN COUNTY REGIONAL PLANNING COMMISSION

This monthly serial will cover climate change topics and will address specific strategies for climate mitigation and adaptation.

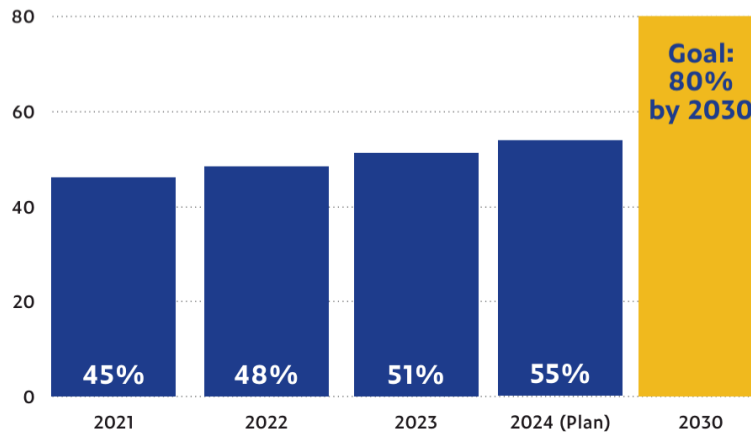
This month's topic is.... **Strategy C: Transition to Clean Energy**

Maine Won't Wait - A Four Year Plan for Climate Action

.....

Maine has become a national leader in reducing greenhouse gas emissions from its energy sources by setting ambitious requirements for transitioning to renewable sources. In 2019, Governor Mills signed bipartisan legislation that set a requirement for Maine to use 80 percent renewable energy by 2030. In 2023, Maine crossed the threshold of using more than 50 percent of its electricity from renewable sources. Recognizing the progress made to date and the key role of clean energy in bringing down the cost of electricity for Maine people, protecting our environment from harmful carbon emissions, and creating good-paying jobs, Governor Mills announced a new accelerated goal of 100 percent clean energy by 2040.

Maine Renewable Electricity



Source: Governor's Energy Office

Learn more below about progress and strategies on the identified actions of Strategy C!

Decrease energy burdens while transitioning to clean energy.

Energy burden is the percentage of household income spent on energy costs. Recent data from the U.S. Department of Energy indicate that **low-income Maine households in 2022 spent roughly 20 percent of their income on energy**, compared to 4 percent for all Maine households.









When looking to achieve this goal of decreasing Mainers energy burden, Maine should find ways to provide continued funding for energy assistance programs for low-income families, including both state and federally funded programs such as the Home Energy Assistance Program, Low Income Assistance Program, Weatherization Assistance Program, heat pump and weatherization programs at Efficiency Maine and MaineHousing, and Window Dressers.

Learn about ways to reduce your energy burden and increase energy efficiency at home under the “Climate Change and You” section of this edition of Interprets!

Plan and build the infrastructure to achieve a resilient and 100 percent clean electricity grid by 2040.

New clean energy resources will help the state transition to a cleaner grid while managing costs and reliability. Learn about some of Maine’s energy policy goals below!

Maine Energy Policy Goals

 <p>Renewable Portfolio Standard</p> <ul style="list-style-type: none"> 80% of electricity delivered in Maine to be renewable by 2030 Supports new and existing resources including hydro, biomass, tidal, waste-to-energy, wind, solar 	 <p>Solar</p> <ul style="list-style-type: none"> \$62 million for Solar for All program to provide benefits of solar and storage to low-income Mainers Targeted procurement for solar on contaminated lands
 <p>Offshore Wind</p> <ul style="list-style-type: none"> Goal of 3,000 megawatts from the Gulf of Maine by 2040 GEO to establish procurement schedule 	 <p>Combined Heat and Power (CHP)</p> <ul style="list-style-type: none"> Procurement of 30 MW of CHP through the Wood-fired Combined Heat and Power Program
 <p>Energy Storage</p> <ul style="list-style-type: none"> Goal of 400 megawatts by 2030 GEO to develop procurement for up to 200 megawatts 	 <p>Transmission</p> <ul style="list-style-type: none"> Procurement of transmission line and generation to connect at least 1,200 MW of renewable energy in northern Maine
 <p>Distributed Generation</p> <ul style="list-style-type: none"> Goal of 750 megawatts of distributed generation 	 <p>Oil Reduction</p> <ul style="list-style-type: none"> 30% from 2007 levels by 2030 and by at least 50% from 2007 levels by 2050 <p>Jobs</p> <ul style="list-style-type: none"> 30,000 clean energy jobs by 2030

Manage the impact of buildings, vehicles, and industry on the grid with innovative demand-management and load-flexibility strategies.

Over the next several decades, total electricity demand is expected to increase significantly. Continuing to build to meet the highest peak will become very expensive. This is where demand management, or “load flexibility,” comes in. It employs strategies and technologies to match electricity usage with supply. This can include **shifting use away from peak periods**, such as charging your electric car or turning on the dishwasher a few hours later than planned, or increasing consumption when cheap renewable energy is abundant, to “even out” the overall load on the grid. **Small changes like these can increase available electricity when it’s needed without building — and paying for — major grid expansions.** New technologies — like electric vehicles, water heaters, smart meters, and battery packs — are making demand management easier and more effective.

Regional Coordinators with the Community Resilience Partnership have been working to organize an ongoing “Grid Conversations” series, covering a variety of grid related topics. View the available recordings below, and stay tuned for upcoming workshops!

Grid Conversation with CMP

Grid Conversation with GEO

Grow Maine’s clean energy economy to support 30,000 clean energy jobs by 2030.

Maine's clean energy sector continues to grow and as of 2023, employed over 15,000 people. In 2022, Maine's clean energy sector grew more than three times faster than the state's overall economy between 2016 and 2022 and outpaced growth in all other New England states. Maine has **over 2,500 clean energy businesses**, representing approximately 4 percent of total businesses throughout the state, which are **contributing \$2.31 billion** to Maine's economy.


To help people enter clean-energy careers, Maine should create clear pathways into these fields, particularly for workers in industries that are most impacted by climate change. This includes establishing seamless career pathways in grades K-12 and higher education through Career and Technical Education and/or dual enrollment in the Maine Community College System, which will lead to relevant industry-recognized credentials, certificates, associate degrees, and beyond.



Let's Learn About....


Reducing Your Energy Burden & Increasing Energy Efficiency


There are many ways that you can help reduce energy burdens and increase energy efficiency right in your home. CMP has put together every day tips and tricks to reduce energy usage. These include heating and cooling techniques, increasing energy efficiency in living areas, kitchen, water heater, exterior, and maximizing the efficiency of your basement and attic. ***Learn more low-cost or no-cost tips that can help make your home more energy efficient by clicking the image below!***





TIPS FOR SAVING ENERGY AT HOME


- ## 1 Heating & Cooling

 - Regularly replace or clean filters in your air conditioner and furnace.
 - Buy air conditioners with high Energy Efficiency Ratios [EER].
- ## 2 Living Areas

 - Use lightbulbs that are LED or compact fluorescent lights [CFLs].
 - Unplug any lights and equipment you aren't using.
- ## 3 Kitchen, Bath, & Laundry

 - Place your refrigerator in a well circulated cool area.
 - Fix leaky faucets, as they can waste as much as 10 gallons of water a week.
- ## 4 Water Heater

 - Removing built up sediment from your water heater can help increase efficiency.
 - Insulating your water heater could help reduce heat loss by 5%-8%.
- ## 5 The Exterior



5

- Designing a landscape of trees and shrubs with energy efficiency in mind will help protect from the sun, storms, and wind.
- Install storm windows and doors.



6

Attic & Basement

- In the basement, insulating unheated areas and crawl spaces helps reduce heat loss.
- In the attic, ensure vents are clear of debris and have good air flow.





The “Spotlight!” Series highlights climate-action resources in Maine.

Let's Learn About.... The Lincoln County Hazard Mitigation Plan Update Survey

Lincoln County Emergency Management Agency (LCEMA), in partnership with the Lincoln County Regional Planning Commission (LCRPC), is updating the 2021 Lincoln County Hazard Mitigation Plan (*which we covered in the 2024 edition of Interprets!*) with an anticipated adoption date of early 2026. **We are seeking Lincoln County residents participation in this Plan update by providing answers in our survey about your community and the County overall.**

The benefit of completing a Hazard Mitigation Plan is eligibility for a range of funding opportunities, including FEMA Hazard Mitigation grants. For many communities, this can and has amounted to tens of thousands of dollars towards regional and local project planning and implementation. Overall, having a well informed plan will prepare our communities resilience. With your assistance, the County can more effectively assess your municipality's requirements or needs, or determine the correct mitigation measures that will work for your community. We anticipate this survey will take approximately 10 – 15 minutes to complete. Please feel free to answer only questions you feel are relevant to you.

[Take the Survey Here](#)



The Community Corner is your local connection: *A space to share resources, opportunities for action, special shout-outs, and more that engages climate change work at our local level.*

Upcoming CRP Webinars for Communities & Service Providers

The Community Resilience Partnership is hosting three webinars in July for communities and service providers to learn more about the updated CRP List of Community Actions and the Infrastructure Rebuilding and Resilience Commission's recent Plan. **See webinar details and register below.**

Register for the Updated List of Community Actions Webinar

July 8, 1 p.m., Updated List of Community Actions Webinar for CRP communities and service providers.

Register for the Infrastructure Rebuilding and Resilience Commission

July 23, 12 p.m., Infrastructure Resilience Plan webinar for CRP communities.

MEMA Low- Interest Hazard Mitigation Loan Program

Maine Emergency Management Agency (MEMA) is working to help local governments obtain low interest loans (1 percent interest rate or less) to implement hazard mitigation project and planning initiatives designed to reduce risks from natural hazards and disasters.

MEMA is collecting this information as a prerequisite to applying for federal funding under the **Safeguarding Tomorrow Revolving Loan Fund**. Any local government who wishes to be considered for future loan opportunities if funding becomes available should complete the online **Project Proposal Form** by 5:00pm EST on July 25, 2025.

[Learn More](#)

What's Changed: A Breakdown of

On May 1, 2025, the Board of Environmental Protection voted to adopt revisions to the Department's Chapter 305, Natural Resources Protection Act

Ch. 305 and Ch. 310 Updates

– Permit by Rule Standards, and Chapter 310, Wetlands and Waterbodies Protection rules. The new rules took effect on June 17, 2025.

The Department will host a webinar on **July 1, 2025, starting at 10 AM**, to review the rule changes with interested parties. To register for the webinar, [please click here](#).

[Learn More](#)

.....

Boothbay Region Community Resilience and Preparedness Survey

The towns of Boothbay and Boothbay Harbor are working with the Boothbay Region Climate Action Team, Sunrise Ecologic, and local partners to prepare for challenges such as flooding, severe storms, and power outages. **Please complete the below survey about how climate-related events affect you and your community.** Your input will support community-led efforts to understand local risks and help protect our infrastructure, public spaces, and natural areas. Your help is a vital part of local work to make smart, practical decisions for our community's future! Contact brclimate@gmail.com for more information or a paper copy.

[Take the Survey](#)



THANK YOU
FOR YOUR SUPPORT OF LOCAL
CLIMATE ACTION AND
INTEREST IN OUR WORK.

UNTIL NEXT EDITION,
The Lincoln County Regional Planning Commission

[View this email in your browser](#)

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Our mailing address is:

297 Bath Road

Wiscasset, Maine 04578

T: (207) 882-4271 • F: (207) 882-5188

info@lcrpc.org

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Emily Rabbe <erabbe@lcrpc.org>

Press Release - Lincoln County Hazard Mitigation Plan

2 messages

Emma McKearney <emckearney@lincounty.me>

Tue, Sep 30, 2025 at 9:04 AM

To: "news@wiscassetnewspaper.com" <news@wiscassetnewspaper.com>, "susanjohns@wiscassetnewspaper.com" <susanjohns@wiscassetnewspaper.com>, "sarahmorley@boothbayregister.com" <sarahmorley@boothbayregister.com>, "info@lcnme.com" <info@lcnme.com>
Cc: Emily Rabbe <erabbe@lcrpc.org>

Good morning, all,

Please see below for a press release from Lincoln County Regional Planning regarding the County's Hazard Mitigation Plan. We realize that this may be late (or cutting it really close), and we sincerely apologize. If you could run it in the Thursday editions of your papers and post it online Wednesday, we would be very thankful.

Thank you!

Lincoln County Regional Planning Commission (LCRPC), in collaboration with Lincoln County Emergency Management Agency (LNEMA), are requesting public comment on the 2026 Hazard Mitigation Plan update. The public comment period is open through October 15.

Every five years, municipalities identify infrastructure and education projects that will mitigate against natural disasters relevant to their area. A detailed risk assessment is performed to inform which disasters are present in an area and assess the costs and probability of disasters.

Participation in, and adoption of, the Plan by the County and municipalities and formal approval by the Federal Emergency Management Agency (FEMA) allow additional federal funding opportunities for hazard mitigation planning and projects.

"This document is an important tool to assess the areas that are susceptible to disasters and populations vulnerable when disaster strikes. We're glad to have been part of developing actions and an outline for municipalities to address these issues," says Emily Rabbe, LCRPC Executive Director and co-writer of the plan.

"Lincoln County towns spent a great deal of time assessing hazards in their communities and identifying mitigation efforts to ensure the hard work they do to keep their communities safe continues and is more robust. The additional funding that becomes available because of their participation allows towns to be more prepared for when the unfortunate does happen. Lincoln County EMA is always available to help towns navigate these issues," says LNEMA Director Emily Huber and one of the contributors to the Plan.

The Plan is available for review and public comment via the LNEMA website and the LCRPC website with a survey to submit comments. The Plan will be submitted to the Maine Emergency Management Agency (MEMA) and FEMA for final review and approvals.

Lincoln County EMA website: lincolncountyema.net

Lincoln County Regional Planning Commission website: lcrpc.org

Emma L. McKearney
Deputy Director



PO Box 249
Wiscasset, ME 04578

Office: (207) 882-7559
Cell: (207) 837-3423
Fax: (207) 882-7550

Emily Rabbe <erabbe@lcrpc.org>

Tue, Sep 30, 2025 at 9:08 AM

To: Emma McKearney <emckearney@lincounty.me>

Cc: "news@wiscassetnewspaper.com" <news@wiscassetnewspaper.com>, "susanjohns@wiscassetnewspaper.com" <susanjohns@wiscassetnewspaper.com>, "sarahmorley@boothbayregister.com" <sarahmorley@boothbayregister.com>, "info@lcnme.com" <info@lcnme.com>

Good morning,

Just realized a typo! The deadline to respond to the public comment period is 10/10 not 10/15. I've updated the release language below.

Lincoln County Regional Planning Commission (LCRPC), in collaboration with Lincoln County Emergency Management Agency (LNEMA), are requesting public comment on the 2026 Hazard Mitigation Plan update. The public comment period is open through October 10th.

Every five years, municipalities identify infrastructure and education projects that will mitigate against natural disasters relevant to their area. A detailed risk assessment is performed to inform which disasters are present in an area and assess the costs and probability of disasters.

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Lincoln County EMA website: lincolncountyema.net

Lincoln County Regional Planning Commission website: lcrpc.org

[Quoted text hidden]

APPENDIX D

MAINE INFRASTRUCTURE REBUILDING
AND RESILIENCE COMMISSION'S FINAL
REPORT - A PLAN FOR
INFRASTRUCTURE RESILIENCE,



May 2025

FINAL REPORT: A Plan for Infrastructure Resilience

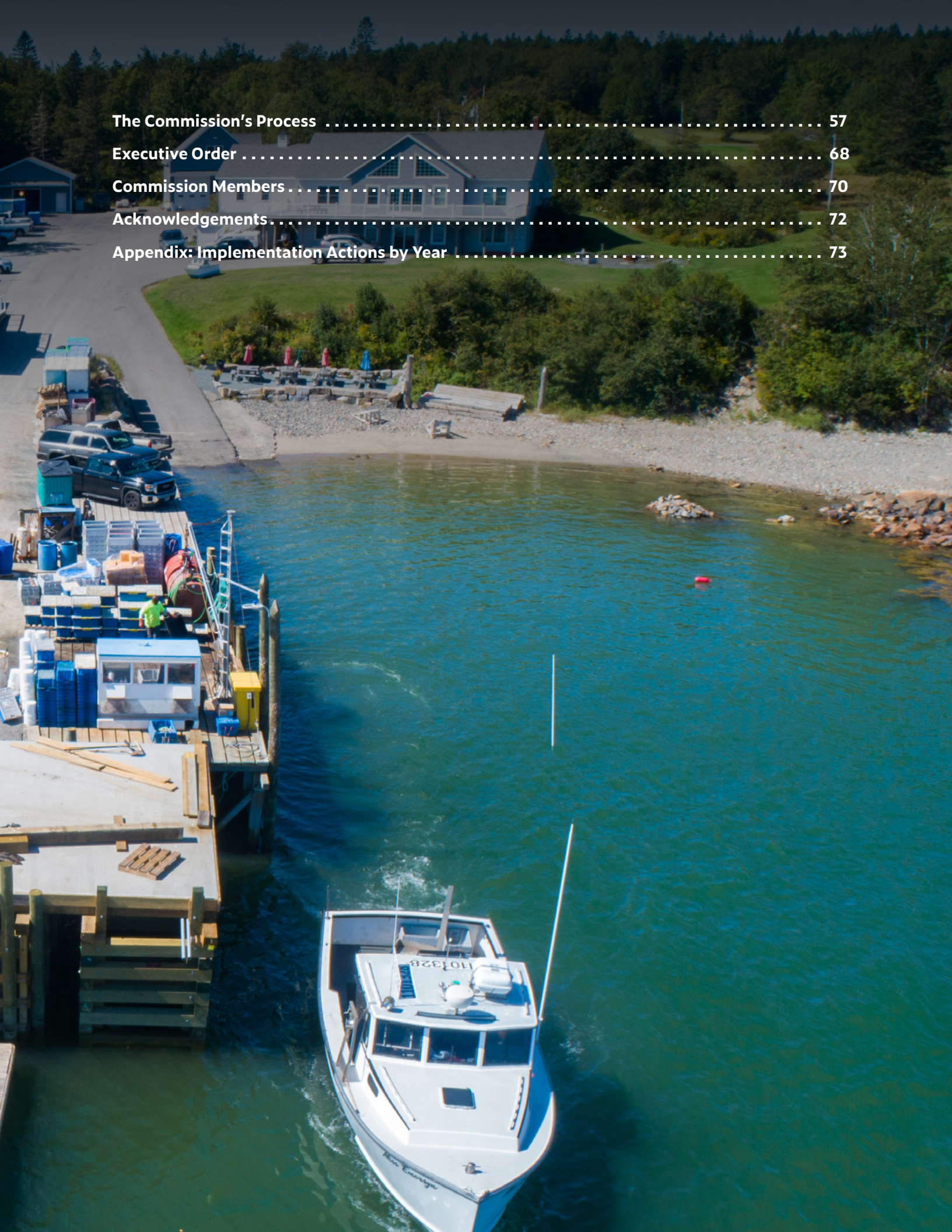


Maine Infrastructure
Rebuilding and Resilience Commission

TABLE OF CONTENTS

Executive Summary	6
Introduction	9
2025 Infrastructure Resilience Plan	23
I. Strengthen Infrastructure and Reduce Disaster Risk	27
II. Improve Disaster Preparedness, Response, and Rebuilding	44
III. Sustain Maine's Momentum through Strategic Investments	52

On January 12, 2024, Chipman's Wharf, a 106-foot wharf on the Narraguagus River in Milbridge was washed away by a devastating storm, including an entire bait shed. Supported by grant funding available to working waterfront businesses to rebuild, the wharf was reconstructed later in the year to continue serving the local fishing fleet. Credit: Island Institute



The Commission's Process	57
Executive Order	68
Commission Members	70
Acknowledgements	72
Appendix: Implementation Actions by Year	73

May 7, 2025

Dear Governor Mills,

As co-chairs of the Infrastructure Rebuilding and Resilience Commission you established by Executive Order in May 2024, we are pleased to deliver to you, the Legislature, and the people of Maine the state's first Plan for Infrastructure Resilience, the culmination of our work over the last year to inform and guide Maine's response, recovery, and rebuilding from extreme storms. This Plan builds upon the interim report we delivered halfway through our work in November 2024, transitioning from a set of preliminary recommendations to a full-fledged plan shaped by the same urgent and unifying theme: the State and its partners must act today to ensure the resiliency of our people, environment, and economy against future storms and climate-related impacts and to protect the Maine we love for future generations.

The stories we heard from dozens of Maine people at our listening sessions throughout the state over the past year paint a stark portrait of what our futures might look like without deliberate action and investment to improve community resilience. More than 16 months after the January 2024 storms, both coastal and inland towns report infrastructure still not fully repaired. Old Orchard Beach, according to Town Manager Diane Asanza, was still recovering from the battering of a 2022 storm when the 2024 storm hit. Commission member Shiloh LaFreniere, Town Manager in Jay, warned, "Towns are not prepared to deal with these storm impacts — they do not have the resources in house and do not know what resources are available out of house." Darren Woods, Aroostook County EMA Director, noted, "Communities and agencies are not just complaining when we identify issues and areas for resilience. We are already working hard at resilience efforts at the local level."

As you noted upon the delivery of our interim report, "Storms know no politics. They don't care if you are a Republican, Democrat, or Independent. They will flood our homes and businesses, wash out our roads and bridges, and threaten the health and safety of our people."

The nonpartisan nature of infrastructure resilience has remained consistent throughout our deliberations. Maine, like all states, depends on federal funding and coordination for disaster preparedness and hazard mitigation, and on significant funding for recovery and rebuilding in the wake of disasters. As we finalized this Plan for delivery, high-ranking officials in the federal administration publicly proposed the elimination of the Federal Emergency Management Agency (FEMA), from which the Maine Emergency Management Agency (MEMA) and regional emergency management agencies receive the bulk of their funding. At the same time, FEMA announced the termination of the Building Resilient Infrastructure and Communities (BRIC) grant program, a critical resource, with no replacement at the time of termination. Such sweeping and unprecedented policy reversals fundamentally complicate this work.

Despite these significant headwinds, this Plan remains urgent and critical. Maine must anticipate scenarios in which states bear greater responsibilities and costs for hazard mitigation, emergency preparedness, and disaster recovery.

The Plan we deliver to you and the people of Maine today aims to go beyond a compilation of recommendations that sit overlooked on a shelf. It identifies agencies, organizations, and partners accountable for implementation and sets forth timeframes for action, ranging from immediate steps to a decade in the future. We included metrics to track the overall progress of the Plan to inform decision makers and the public. This Plan charts a path to a stronger, more resilient Maine by strengthening infrastructure and reducing disaster risks; improving disaster preparedness, response, and recovery; and sustaining Maine's momentum through strategic investments.

To that end, the Plan recommends that the new State Resilience Office tracks activity and reports the plan's progress. It also recommends that you as Governor establish an entity whose purpose is to receive those reports and monitor implementation of the Plan's strategies and actions.

Without relentless focus and attention, Maine risks losing the meaningful momentum it's gained since the devastating storms of December 2023 and January 2024, which prompted the creation of our Commission. Your Administration and the Legislature committed an historic \$60 million for storm relief for working waterfronts, infrastructure projects, and business recovery, and, more recently, an additional \$39 million through the newly passed LD 1 to help Maine communities, homeowners, businesses, and emergency response personnel better prepare for and withstand severe storms.

These investments will help to protect our communities against the havoc of future storms, from days-long power outages that disrupt lives and economic activity, washed out roads that impede heating fuel deliveries and emergency responders, flooding that puts drinking water systems at risk of contamination, and much more.

These investments will save lives, will save taxpayers money, and strengthen our economy. According to a recent study released by the U.S. Chamber of Commerce, every \$1 spent on climate resilience and preparedness saves communities \$13 in damages, cleanup costs, and economic impact. By that measure, the more than \$100 million that Maine has already committed will save over \$1 billion in the coming years.

While that figure is impressive, it pales in comparison to the financial scale of Maine's infrastructure and resilience challenge. The state and communities will likely need billions in investments over the decades to come to adequately prepare for the increasingly frequent and intense storms in our future. Philanthropy also has an essential role to play in catalyzing innovation, filling funding gaps, and supporting community-led resilience efforts. This is a daunting reality, but one we face together as a state unafraid to acknowledge the challenges of today and to anticipate the challenges of tomorrow.

In closing, we along with all of the Commission's members extend our gratitude to the many individuals who contributed to the Commission's work. This includes the many participants in the listening sessions, the officials who hosted us around the state, the numerous experts who presented to the Commission, and staff from the Governor's Office of Policy Innovation and the Future and the Maine Emergency Management Agency.

We thank you, Governor Mills, for this opportunity to lead the Commission and deliver a plan for a more resilient Maine.



Linda Nelson, Economic and
Community Development
Director, Town of Stonington



Dan Tishman, Principal and
Chairman of Tishman Realty &
Construction

Co-Chairs, Infrastructure Rebuilding and Resilience Commission

EXECUTIVE SUMMARY

A new era of storms and natural disasters has marked its arrival in Maine with dramatic and devastating results. Between March 2022 and May 2024, Maine experienced an extraordinary nine natural disasters, each severe enough to merit Presidential disaster or emergency declarations. The rising severity and frequency of these storms and floods raise urgent alarms about the increasing risks of extreme weather in our state and drive home the imperative that Maine plan for and invest in infrastructure resilience at the state, regional, and local levels.

These implications had not yet emerged when, in May 2024, Governor Mills established the Commission on Infrastructure Rebuilding and Resilience by Executive Order and charged its 24 members with developing a plan to reduce the risk of damage from extreme storms and floods, and actions to improve Maine's ability to respond and recover when the next disasters hit. As the Commission heard from affected communities and met to develop this plan, six key messages informed its deliberations:

- **The situation is urgent.** Maine cannot assume that the recurring storms of the past three years are an anomaly.
- **Maine must become more active, capable, and self-resourced** in hazard mitigation, disaster recovery, and climate resilience in anticipation of more frequent disasters as well as changes in federal disaster management policies.
- **The financial scale of Maine's infrastructure resilience challenge is extensive**, with hundreds of millions needed in infrastructure investments over the next decade.
- **The cost of inaction far exceeds proactive investment**, with studies repeatedly showing that every \$1 invested in resilience likely avoids \$13 in damage and economic impact.
- **Maine needs to change how and where we build.** The state and communities must prepare for difficult conversations about getting out of harm's way and relocating critical infrastructure to safer areas.
- **The state will have to be strategic and efficient with resources.** Current funding and human capacity, both state and local, are insufficient. Regional collaboration and capacity along with a robust strategy for long-term funding of resilience projects can make efficient use of resources.

As the Commission reviewed the final draft of this plan in March and April, changes at the federal level — specifically the Federal Emergency Management Agency's (FEMA) decision to sunset certain hazard mitigation funding programs — highlighted the need for Maine to work proactively to advance resilience and hazard mitigation projects. Maine showed resilience and determination during the storms and must advance this work in light of changes at the federal level. Maine's state motto "Dirigo" means "I lead." By implementing this plan, Maine will be a national leader at tackling hazard mitigation challenges head-on.

The Commission's final product, an Infrastructure Resilience Plan, provides strategies and actions that strengthen infrastructure and reduce disaster risks; improve disaster preparedness, response, and recovery; and sustain Maine's momentum through strategic investments. The plan is a comprehensive approach to integrate resilience principles deeply into decision-making at all levels of government.

INFRASTRUCTURE RESILIENCE PLAN SUMMARY

The Commission's Plan is organized into three pillars, each supported by a series of strategies and actions.

I. Strengthen Infrastructure and Reduce Disaster Risk

1. Identify, prioritize, and strengthen vulnerable infrastructure.
2. Assist communities to effectively assess and reduce risk.
3. Improve and protect energy infrastructure and increase energy resilience for customers.
4. Protect and promote resilience across a diverse mix of public and privately owned working waterfront infrastructure.

II. Improve Disaster Preparedness, Response, and Rebuilding

5. Enhance communications during and immediately after emergencies.
6. Strengthen emergency coordination and rapid reaction capabilities across governments and with the philanthropic and nonprofit sector to alleviate immediate post-disaster needs.
7. Expedite permitting for post-disaster rebuilding, infrastructure strengthening, and resilience projects.
8. Develop tools and education to make buildings more resilient.

III. Sustain Maine's Momentum through Strategic Investments

9. Improve data and information sharing to help leaders make informed decisions about risk.
10. Maximize federal funding for disaster recovery and proactive resilience projects.
11. Develop long-term funding and financing strategies for infrastructure resilience.



Flooding during the severe storms of 2024 overtook roads in Bingham, Maine. Credit: DECD



The late Bill Kitchen, Machias Town Manager, describes the extent of flooding in Machias during the January 2024 storm, when wind-driven waves and storm surge caused water to flow over the Machias dike, damaging the structure and flooding adjacent downtown areas of Machias.

The plan will be implemented through cooperation among state agencies; local, county, and tribal governments; the nonprofit and philanthropic sector; the private sector; Maine’s institutions of higher education and continuing education; and the public.

The plan identifies and builds upon several key areas of momentum in Maine. The plan reinforces the work of the Maine Climate Council and anticipates activities that the State of Maine and its partners are beginning, supported by a historic \$69 million resilience grant from the National Oceanic and Atmospheric Administration (NOAA). The newly established Maine Office of Community Affairs will house a State Resilience Office and work with state agencies to coordinate resources and services for communities to build resilience through a “one-stop shop” model of engagement and assistance.

Recognizing the urgency of the situation, the Governor and the Legislature took initial steps in April 2024, designating \$60 million for storm recovery and rebuilding damaged infrastructure with greater resilience. This funding enabled repair and recovery investments in 43 towns and cities, nearly 70 working waterfront facilities,

and nearly 150 businesses and nonprofits. Additionally, the Federal Emergency Management Agency (FEMA) directed over \$32 million to communities and households over the past two years for disaster recovery costs, a number that is expected to grow as FEMA continues payments to local governments for the damage to public infrastructure in December and January.

The Commission’s work is already bearing fruit. LD 1 “An Act to Increase Storm Preparedness for Maine’s Communities, Homes and Infrastructure” implements several of the Commission’s key interim recommendations by providing funding for home resiliency improvements, emergency communication and disaster recovery, and community flood risk management. The plan leverages these new investments and identifies opportunities to build on their success.

These are important initial investments but only a start in meeting Maine’s long-term needs. The growing severity of storms fueled by a warming climate, centuries of development in areas at risk, and the looming possibility of a reduced federal role in disaster management are challenges that Maine must confront immediately with commitment, investment, and innovation.

INTRODUCTION

A New Era of Risk

The dangers of extreme weather and natural hazards have become undeniable in Maine over the past three years, as a series of intense storms caused millions of dollars in damage and claimed four lives. Heroic action by hundreds of first responders across the state likely saved many more lives. These storms raise alarms about the risks facing our state and the need to plan for and invest in immediate and long-term infrastructure resilience at the state, regional, and local levels.

In a span of just four weeks during December 2023 and January 2024, three historically severe storms caused catastrophic inland and coastal flooding, resulting in

unprecedented devastation to infrastructure and communities across the state. The damage to public infrastructure reached at least \$90 million, with millions more in losses for private homes and businesses.

Between December 17 and 21, 2023, heavy rainfall combined with rapid snowmelt, partially frozen ground, and pre-saturated soils to produce catastrophic flooding across three of Maine's largest river systems and their tributaries, the Kennebec River, the Androscoggin River, and the Saco River. Over a dozen river gauges reached major or record flood levels following heavy rain and snowmelt, requiring two municipalities to perform emergency evacuations. Flooded rivers caused the closing of hundreds of roads, stranding entire communities and preventing emergency responders and power recovery crews from accessing hard-hit areas for days. Furthermore, widespread, prolonged, and damaging winds of 45-80 miles per hour resulted in extensive downed trees and power lines, leaving over 440,000 properties without power for several days. The storm claimed the lives of four people, including two whose vehicle was swept away by floodwaters. State officials estimate that damage exceeded \$20 million across 10 of Maine's 16 counties. Some of the hardest-hit areas were rural communities with limited fiscal, staff, and community capacity for guiding recovery, as well as several counties that have been sites of prior declared disasters over the past year alone.

The next storm, on January 10, 2024, caused significant flooding and infrastructure damage along the Maine coast. Heavy wind, rain, and flooding destroyed homes, buildings, and roadways. Record-high storm tides damaged lighthouses and devastated docks, wharves, and piers serving Maine's iconic and vital working waterfronts. On January 13, just three days later, the state experienced a second coastal storm and new record-high storm tides that further damaged coastal homes, businesses, beaches, and waterfront infrastructure. Initial public infrastructure damage estimates from the

Federal Policy Changes

As the Commission reviewed the final draft of this plan in March and April 2025, the Federal Emergency Management Agency (FEMA) ended the Building Resilient Infrastructure and Communities (BRIC) grant program and other changes have been proposed to the structure of FEMA. All states, including Maine, rely on federal funding for disaster preparedness and hazard mitigation, and on a coordinated federal response during recovery and rebuilding after a disaster.

To ensure that lives and property continue to be protected, Maine must — with urgency — become more active, capable, and self-resourced in hazard mitigation, disaster recovery, and climate resilience in anticipation of more frequent disasters as well as further changes in federal disaster management policies. This will require much more robust state leadership and funding, as well as stronger partnerships and collaboration with local governments, philanthropy, and the nonprofit and private sectors.



FEMA

two storms were over \$70 million, far surpassing those incurred from the December storm. With the start of fishing season just months away, waterfront businesses that serve the industry faced a daunting timeline to repair and rebuild. As in December, some of the most affected communities were smaller towns with fewer resources on hand to navigate one of the most complex recoveries in Maine's history.

In response, Governor Mills requested federal disaster declarations for all three storms through two major disaster declaration requests. With additional storms in March and May 2024, the state of Maine is now simultaneously grappling with the fallout from an unparalleled eight major disaster declarations and one emergency declaration over the past 21 months. This is a dramatic increase over recent decades when Maine had averaged just one disaster or emergency declaration per year.

These events demonstrate an urgent need to invest now in long-term resilience strategies that avoid the ballooning and preventable costs of repeated cycles of damage and rebuilding. With 3,500 miles of tidal coastline, Maine has the fourth-longest coast in the continental United States. The Maine coast is an economic engine for the state, attracting millions of visitors annually and supporting working waterfronts for the state's important fishing, lobstering, aquaculture, and shipbuilding industries and related marine businesses. Rising sea levels and a rapidly warming Gulf of Maine threaten coastal communities and the marine resources they depend on. Maine's central and western mountain areas have been hit repeatedly with intense storms that caused severe flooding along major rivers and minor streams alike, resulting in serious infrastructure and economic damage to natural-resource-based industries and important tourism sectors, such as outdoor recreation.



This culvert in Paris, Maine was constructed in 2023 to withstand extreme weather events, and was undamaged during the storms in 2024. Credit: Maine DOT

Relentless warming trends on land and at sea drive extreme storms, rising seas, flooding, and drought, all of which threaten our environment, heritage industries, infrastructure, and the future of our communities and economy. Maine's coastal and inland communities currently face numerous threats and challenges:

- **Accelerating sea-level rise:** The rate of sea level rise continues to accelerate in Maine. Since 2000, the rate of sea level rise is roughly 2.5 times faster than the long-term trend since 1912. In 2023, Maine's three long-term tide gauges (in Portland, Eastport, and Bar Harbor) measured record-high annual mean sea levels for six of the 12 months, an average of 6.1 inches above levels from the year 2000. Annual mean sea level in 2024 ranked second, behind 2023, measuring an average of 5.5 inches above 2000 levels, and new record water levels were set for five of the 12 months. Rising seas threaten Maine's coastal economies. The "Cost of Doing Nothing" analysis conducted in 2020 by the Maine Climate Council found that forecasted sea level rise by 2050 threatens more than 21,000 coastal jobs in tourism, fishing, and real estate, which is equivalent to 3 percent of Maine's workforce.
- **Inland flooding:** Inland flooding endangers people and affects transportation, water, and other community infrastructure. In the next 30 years, approximately 2,300 inland road culverts have a two-in-three chance of overtopping during flood events, according to an analysis from The Nature Conservancy in Maine. Failed culverts and roads severely impair the ability to move people and goods, deliver emergency services, and restore electricity and communications. In rural areas, lengthy detour distances due to road washouts can inflict financial and emotional burdens on individuals and communities. Impaired infrastructure that limits access to recreational sites for skiing, snowmobiling, boating, fishing, camping and other activities can harm Maine's vital tourism and outdoor recreation industries. Very often, businesses that cater to outdoor recreation are seasonal operations. These businesses have only a few months to earn a year's worth of revenue, making any downtime due to impaired infrastructure a substantial threat.
- **Emerging threats:** While flooding is one of the most damaging hazards in Maine, communities and infrastructure also face threats from high winds, heat, wildfire, drought, and saltwater intrusion. As a densely forested state, high winds and wildfires that knock down trees are particularly threatening to the electric grid, transportation networks, and buildings. Drinking water systems are increasingly at risk from drought and saltwater intrusion. While the frequency of drought has not increased in the historical record, precipitation variability from year to year has increased (2020 had the driest growing period on record, while 2023 had the wettest), straining wells and water systems across the state. Along the coast, increased demand for water during dry periods in summer months can cause saltwater to seep into aquifers, contaminating drinking water for islands and coastal communities. High heat may affect transportation and electric transmission infrastructure in the future, while near-term impacts may be health risks for the outdoor workers who build, maintain, and repair these and other systems.



Increased frequency and intensity of storm events: In recent decades, Maine has experienced an average of one disaster or emergency declaration annually.

However, since March 2022, Maine has seen eight disaster declarations and one emergency declaration:

DISASTER DECLARATION

When: October 30-31, 2022
Where: Knox, Waldo, and York Counties
What: Severe Storm Flood Event

DISASTER DECLARATION

When: December 23-24, 2022
Where: Franklin, Knox, Oxford, Somerset, Waldo, and York Counties
What: Severe Storm Flood Event

DISASTER DECLARATION

When: April 30-May 1, 2023
Where: Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties
What: Severe Storm Flood Event

DISASTER DECLARATION

When: June 26, 2023
Where: Oxford County
What: Severe Storm Flood Event

DISASTER DECLARATION

When: June 29, 2023
Where: Franklin County
What: Severe Storm Flood Event

EMERGENCY DECLARATION

When: September 15-17, 2023
Where: Across the State
What: In Advance of Hurricane Lee's Landfall

DISASTER DECLARATION

When: December 17-21, 2023
Where: Androscoggin, Franklin, Hancock, Kennebec, Oxford, Penobscot, Piscataquis, Somerset, Waldo, and Washington Counties
What: Severe Storm Flood Event

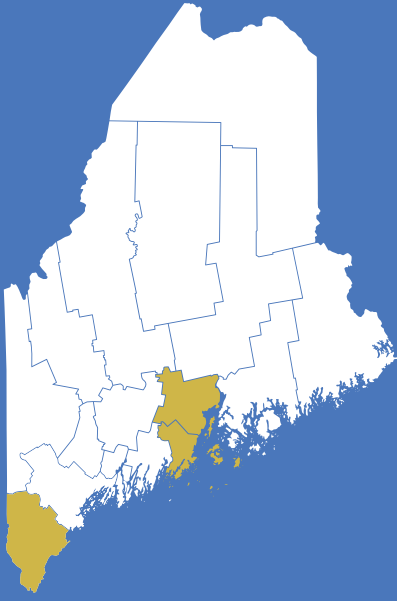
DISASTER DECLARATION

When: January 9-13, 2024
Where: Cumberland, Hancock, Knox, Lincoln, Sagadahoc, Waldo, Washington, and York Counties
What: Severe Storm Flood Event

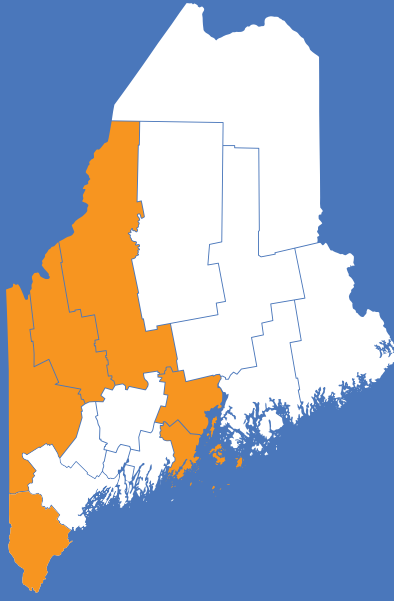
DISASTER DECLARATION

When: April 3-5, 2024
Where: Cumberland and York Counties
What: Severe Winter Storm

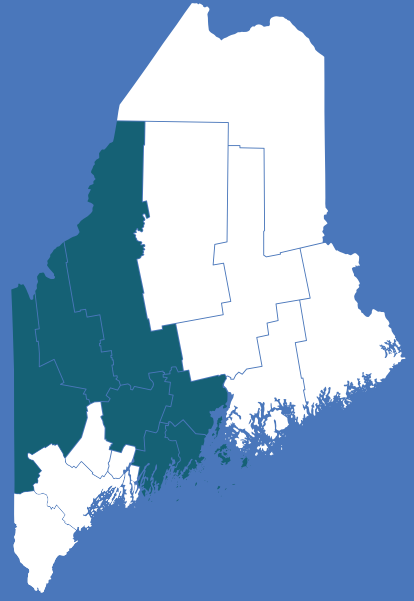
October 30-31, 2022



December 23-24, 2022



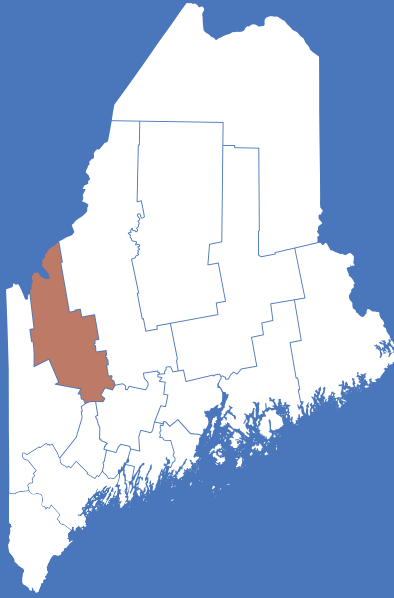
April 30-May 1, 2023



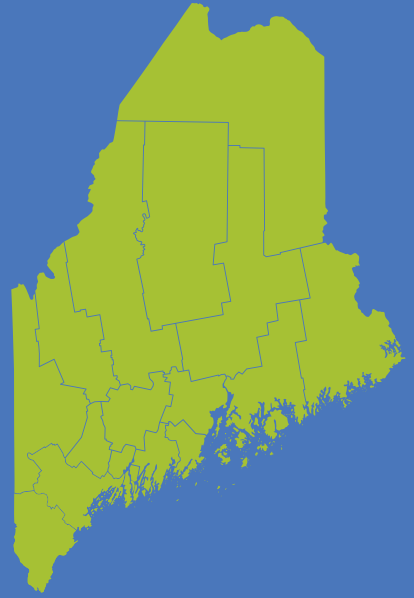
June 26, 2023



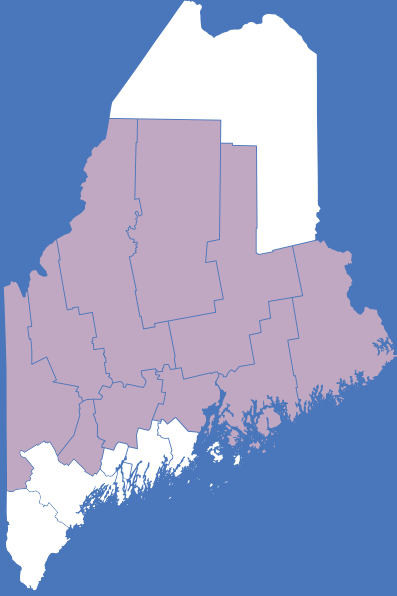
June 29, 2023



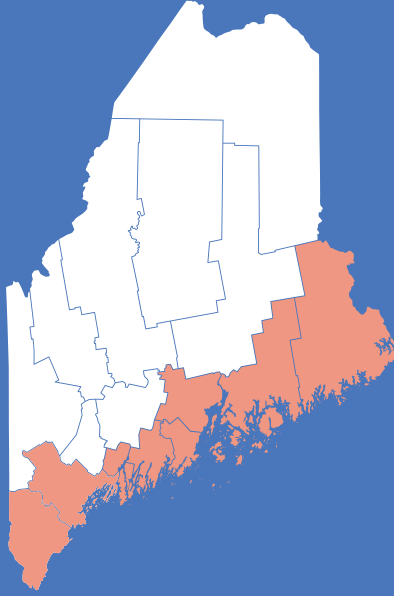
September 15-17, 2023



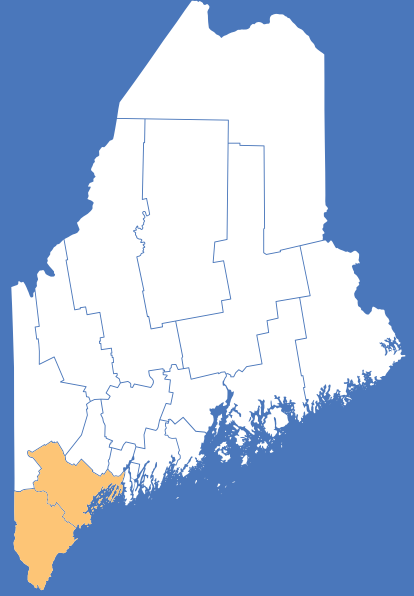
December 17-21, 2023



January 9-13, 2024



April 3-5, 2024



THE IMPERATIVE FOR ACTION

In the weeks and months following the December 2023 and January 2024 storms, Maine people, business owners, community leaders, and state agencies worked diligently to repair and rebuild. Questions and uncertainty swirled as owners looked upon damaged homes, storefronts, wharves, and roadways. How quickly could it be rebuilt? Should it be rebuilt here? How would it be paid for?

For many, urgency and cost were understandably the primary concerns. With the depth of winter still ahead, many needed a reliable shelter for their families. Others anxiously looked ahead to the next tourism or fishing season. In the western hills, that meant reopening as rapidly as possible for ski season and outdoor recreation. On the coast, with the start of fishing season just a few months away, mobilizing to rebuild wharves, piers, and other working waterfront infrastructure took on an urgent resolve. In beach towns, sand dunes that defend homes and infrastructure from the sea lost much of their size and may take years to regenerate naturally. Even after nearly a year and half, restoring both human-made and natural protections remains front of mind for many.

As the Commission toured the state, members heard stories from town officials, emergency managers, first responders, and business owners about the speed and scale of damage and the challenges of recovery and rebuilding. Officials from nearly every town expressed shock at the number of severe rain or storm events in recent years and the challenges of navigating the rebuilding process.

- In Stonington, as the second storm in three days barreled towards the town, community members hurried to secure damaged wharves and bait sheds with chains and, in one case, parked a forklift on a damaged pier to prevent it from being carried away on the next storm tide.
- In Old Orchard Beach, the sand dunes and beaches that are the lifeblood of the summer tourism season

are also the first layer of defense against winter's coastal storms. The dunes were severely eroded by the January storms, leaving town and county officials worried about how to protect the community from battering waves in the coming winter.

- The towns of Rumford and Mexico are accustomed to annual spring floods when snowmelt swells the rivers, but leaders shared their sense that the December flood was completely unprecedented. The Androscoggin River and its tributaries rose faster than ever before, leaving officials and residents with little time to prepare or evacuate. In Mexico, the Swift River reached the highest flow rate ever recorded, claiming the lives of two residents. County emergency managers shared stories of deep fatigue from repeated disaster recoveries.
- In Jay, a severe summer rainstorm in June 2023 washed out roads and culverts in many locations. Repairs to the roads and culverts are complete. However, navigating complex FEMA reimbursement systems consumed as much as 10 hours per week of the town staff's time.
- In Rockland, waterfront infrastructure sustained damage during the January storms. The city's multi-use piers and related facilities serve commercial and recreational vessels, house various marine businesses, and enable transportation and emergency services for island communities.





- In Machias, the town offices were flooded and severely damaged, as were businesses along Route 1. The dike that carries Route 1 and the Downeast Sunrise Trail is critical to regional connectivity and popular for walking and recreational fishing. It was overtopped by floodwaters and town leaders feared the dike might have been breached, until the waters receded and revealed it to be damaged but intact.
- In Aroostook County, which did not experience severe conditions in December or January but has weathered previous severe storm events and floods, officials voiced their concern about the lack of updated flood maps, as ice jams and flooding become more frequent and less predictable. The county's remoteness means that communities must plan for extended periods without electricity, fuel, and other resources.
- In Hallowell, the Kennebec River rose and inundated the downtown during the December 2023 storm. Floodwater filled the basements of downtown businesses to the ceiling and in some cases lifted buildings off foundations. Business owners rushed to salvage the food, appliances, and merchandise aided by the massive efforts of volunteers, employees, city workers, and first responders.

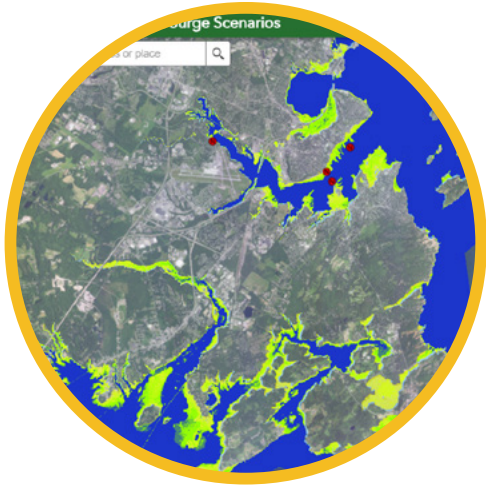
Infrastructure is the backbone of our state and communities. It makes public safety and public health possible, and it underpins economies and the activities of Maine people, households, and businesses. For many people affected by the storms, the repeated episodes between 2022 and 2024 left little doubt that Maine has entered a new era of storm intensity and vulnerability.

Questions about how to rebuild infrastructure have become commonplace. How much higher should roads or wharves be to avoid the next flood? How much stronger to withstand the next onslaught? In far too many instances, decades-old flood maps and outdated building codes did not offer sufficient answers for the magnitude of the challenge. When confronted with the need to rebuild quickly, communities, engineers, contractors, and property owners frequently lacked designs and approaches that could be trusted to withstand the next big storm.

Last century's thinking will not solve this century's problems. Maine needs new approaches to inform how and where communities rebuild. State policy, plans, and funding programs must align near-term needs with long-term resilience goals. These new solutions must be available immediately in the aftermath of a disaster so that when urgency and emotion are high, the path to recovery is clear and actionable.

The following are the most important messages the Commission heard and the lessons that inform this plan:

- **The situation is urgent.** Maine cannot assume that the recurring storms of the past three years are an anomaly. Individuals, communities, and the state must prepare for storms and disasters that are becoming more intense, more damaging, and more disruptive to lives and economies in our state.
- **Maine must become more active, capable, and self-resourced** in hazard mitigation, disaster recovery, and climate resilience in anticipation of more frequent disasters as well as changes in federal disaster management policies. With the federal government sunsetting hazard mitigation programs like the Building Resilient Infrastructure and Communities (BRIC) program and publicly proposing significant changes to the Federal Emergency Management Agency (FEMA), Maine must anticipate scenarios in which states bear greater responsibilities and costs for hazard mitigation, emergency preparedness, and disaster recovery. Such a shift would have significant implications for the state's budget and fiscal health.



- **The financial scale of Maine’s infrastructure resilience challenge is extensive**, with billions needed in infrastructure investments over the next 25 years. For example, Maine’s transportation infrastructure will require several hundred million dollars in flood resiliency improvements over the next decade. Proactive investments in resiliency are far more cost effective than the economic impacts and rebuilding costs from disasters.

Over the past four years, more than \$110 million in state funds and \$4.4 billion in federal funds has been spent on proactive infrastructure resilience and reactive disaster recovery. If federal policy is headed toward a future in which states are increasingly responsible for disaster recovery, then proactive risk reduction led by the state and communities is imperative to Maine’s self-preservation.

The state’s investments over the past four years include \$39 million in 2025 for LD 1’s disaster recovery and proactive resiliency initiatives, \$65 million in 2024 for storm recovery and community resilience, approximately \$7 million in 2023 for the Community Resilience Partnership and Maine Infrastructure Adaptation Fund. Much of this was one-time funding and more than half of these state funds total went to disaster recovery needs rather than proactive resilience projects.

Maine has received significant federal investment over the past several years for resilient infrastructure. The Maine Jobs and Recovery Plan (MJRP) distributed \$78 million across 2021 and 2022 for clean water and climate adaptation projects. Programs funded through the Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA) have invested over \$4.4 billion in Maine since 2021,

including over \$2 billion for improvements and upgrades to Maine’s transportation system; nearly \$800 million to modernize and strengthen the energy grid; and over \$600 million for resilience projects that address clean water and wastewater systems, rehabilitate aging infrastructure, and conserve Maine lands and waters.

As federal programs come to an end, state and local governments must find ways to continue investments in infrastructure. A sustained funding plan should put more emphasis on proactive risk mitigation, reducing the need for reactive disaster recovery funding over time.

- **The cost of inaction far exceeds proactive investment.** Extreme weather events are costing the U.S. close to \$150 billion each year, according to the Fifth National Climate Assessment. The total cost of storms in Maine over the past three years likely exceeds \$100 million. We must pay, now or later, for improvements to our infrastructure, homes, and businesses. The choice Maine faces is whether to make proactive investments to safeguard infrastructure and communities against the fury of storms and floods we know will come, or to wait for those storms to hit and pay for the fallout — preventable loss of life, avoidable community devastation, and unnecessary economic disruption.

The 2020 “Cost of Doing Nothing” report identified six municipal wastewater treatment plants that are vulnerable to inundation by sea level rise in as little as 25 years. The replacement cost for these facilities could be \$30 million to \$90 million if they are not adequately prepared for the impact of rising seas.



Every \$1 Invested in Resilience Saves \$13






Decades of studies by the National Institute of Building Sciences, and more recently by the U.S. Chamber of Commerce, have shown that investments in proactive measures yield savings many times greater by preventing and avoiding casualties, damage, and economic disruption.

- US Chamber of Commerce (2024 study):
The Preparedness Payoff: The Economic Benefits of Investing in Climate Resilience

"The study revealed that each \$1 of investment in resilience and disaster preparedness reduces a community's economic costs after an event by \$7...in addition to the \$6 of savings for damage already assumed in our model. Combining the two ratios finds that every \$1 invested in resilience and disaster preparedness saves \$13 in economic impact, damage, and cleanup costs after the event."

National Institute of Building Sciences (2019 report):
Mitigation Saves: Mitigation Saves up to \$13 per \$1 Invested across flooding, hurricane surge, wind, and fire.

- Adopting the latest building code requirements saves \$11 per \$1 invested.
- Above-code design and private sector building retrofits each save \$4 per \$1 cost.
- Telecommunications, roads, power, water infrastructure retrofits save \$4 per \$1 cost.
- Federal grants save \$6 per \$1 cost.

	ADOPT CODE	ABOVE CODE	BUILDING RETROFIT	LIFELINE RETROFIT	FEDERAL GRANTS
Overall Benefit-Cost Ratio	11:1	4:1	4:1	4:1	6:1
Cost (\$Billion)	\$1/yr	\$4/yr	\$520	\$0.6	\$27
Benefit (\$Billion)	\$13/yr	\$16/yr	\$2200	\$2.5	\$160
 Riverine Flood	6:1	5:1	6:1	8:1	7:1
 Hurricane Surge	N/A	7:1	N/A	N/A	N/A
 Wind	10:1	5:1	6:1	7:1	5:1
 Earthquake	12:1	4:1	13:1	3:1	3:1
 Wildland-Urban Interface Fire	N/A	4:1	2:1	N/A	3:1

- **Maine needs to change how and where we build.** Most of Maine’s infrastructure was built for the last century. The climate and our population are different today and will be different decades from now. The damage that communities suffered over the past three years is largely the result of two factors: a warming climate that is changing the frequency and severity of storms; and the growth of Maine’s towns and cities over centuries in places that today have higher risks of flooding, storm surge, and other natural hazards. Maine must simultaneously act to curb the causes of climate change, adapt to increased risk, and anticipate future risk when making decisions about where and how to build. The state and communities must prepare for difficult conversations about getting out of harm’s way and relocating critical infrastructure to safer areas.
- **The state will have to be strategic and efficient with resources.** Funding and human capacity, both state and local, are insufficient to individually assist each of Maine’s nearly 500 cities, towns, plantations, and tribal communities. Ensuring that every community in Maine is prepared for future storms and disasters will require:
 - Regional collaboration supported by regional capacity that makes efficient use of limited resources and encourages cooperative problem solving. Storms and floods do not care about municipal boundaries. Maine is a home rule state where decisions with long-term effects are often made at the municipal level. Maine will need to lean into and leverage its experience addressing regionally significant issues like infrastructure, transportation, and housing to become more resilient.
 - A strategy for long-term resilience funding that 1) acknowledges the need for Maine to commit significant resources over the coming decades to protect and prepare communities and infrastructure for natural disasters; 2) recognizes that the state’s public resources will be insufficient and must be deployed efficiently; and 3) develops new sources of funding, finance, and insurance from within and beyond the state budget.



On May 21, 2024, Governor Janet Mills signed an Executive Order on the wharf in Stonington to establish the Infrastructure Rebuilding and Resilience Commission in the wake of historic storm damage across the state.



MAINE'S MOMENTUM IS GROWING

On May 21, 2024, Governor Mills created the Infrastructure Rebuilding and Resilience Commission by Executive Order. The Commission was charged with reviewing and evaluating Maine's response to the December 2023 and January 2024 storms, identifying crucial areas for near-term investment and policy needs, and developing the state's first long-term infrastructure plan to ensure that Maine is ready for the harsh storms ahead. The Commission complements and reinforces the work of the Maine Climate Council, which has defined "resilience" in the state's climate action plan, *Maine Won't Wait*, as the "ability of a community, business, or natural environment to prepare for, endure, react to, and move forward from the impacts of climate change."

Maine's response to and recovery from these disasters hinges on resources from individuals, businesses, philanthropy, and a host of local, state, and federal sources. In April 2024, Governor Mills and the Legislature allocated \$60 million to rebuilding public infrastructure, repairing critical working waterfront piers and wharves, and assisting small businesses struggling with recovery costs. Awards were distributed across three programs targeting different impacted entities:

1. Through the Maine Infrastructure Adaptation Fund, Maine Department of Transportation (Maine DOT) awarded over \$25 million to 43 municipalities to mitigate the impact of intense storms, flooding, and rising sea levels. Grants supported 22 culvert replacement projects; 13 road, bridge, and stormwater projects; and 4 water and wastewater projects.
2. Maine DOT and the Department of Marine Resources awarded nearly \$23 million in grants to reconstruct and improve damaged wharves and piers, rebuild and restore key marine support buildings, and repair and upgrade fuel and electrical systems at nearly 70 working waterfront businesses.
3. The Department of Economic and Community Development awarded \$10 million in grants in the first round of the Business Recovery and Resilience Fund program. Nearly 150 businesses and nonprofits received grants to help with design, permitting, and construction costs for projects that address the impacts of the previous winter's storm.

Historic Investment in Climate Resilience

In October 2024, Maine kicked off a major \$69 million climate resilience grant, funded through the National Oceanic and Atmospheric Administration's (NOAA) Climate Resilience Regional Challenge. Funds are being used to protect Maine's communities, environment, and working waterfronts from extreme storms, flooding, and rising sea levels. Over the next five years, Maine will implement three integrated climate resilience-building strategies that advance the recommendations outlined in *Maine Won't Wait*, Maine's Climate Action Plan, and collectively build the capacity of underserved, rural, and tribal communities. Strategies include: build enduring community resiliency, reduce climate impacts through nature-based solutions and investments in green infrastructure, and strengthen the resilience of working waterfronts. Examples of activities under each strategy are outlined here:

- **Building Enduring Community Resiliency:** expanding support to communities through the Community Resilience Partnership, establishing a statewide Resilience Collaborative to provide towns and Tribes with services to plan, design, and implement resilience and risk-reduction projects, supporting investments in critical infrastructure projects through the Maine Infrastructures Adaptation Fund, engineering and design support for local and regional green infrastructure projects, and establishing a State Resilience Office.
- **Reduce Climate Impacts Through Nature-based Solutions and Investments in Green Infrastructure:** development of climate risk and assessment tools and decision support resources for Maine's inland and coastal communities, placement of Maine Shore Corps Stewards around the state to support green infrastructure opportunities, demonstration projects to model nature-based solution implementation and regional collaboration across state agencies, a cross-agency permitting forum to advance climate-related changes to Maine's permitting process, implementation of a new Climate Resiliency Conservation Fund for land acquisition, personnel across state agencies and project partners to provide capacity expertise, and technical assistance to Maine communities.
- **Strengthen the Resilience of Working Waterfronts:** development of a statewide working waterfront strategy, dedicating funds for working waterfront resilience project, and implementation of the Seafood Economic Accelerator of Maine Roadmap.



In July, Governor Mills toured Fisherman's Wharf in Portland before a press conference with NOAA to announce the recipients of \$575 million in highly competitive Climate Resilience Grant Challenge awards to strengthen and protect communities and working waterfronts.

Additionally, the Governor and Legislature allocated \$5 million to the Community Resilience Partnership for grants to communities for vulnerability assessments and proactive risk reduction and community preparedness projects. The program provides grants and technical assistance to municipalities, tribal governments, and unorganized territories in Maine for projects that increase resilience to extreme weather, improve energy efficiency, and transition to clean energy. More than 260 communities in Maine are actively participating in the program, which has awarded over \$16 million in grants to 276 municipal and tribal community resilience projects since it was established in 2021.

Federal disaster relief and recovery resources augmented the state's rebuilding funds. In 2024, impacted families and households in Maine received \$11.4 million in relief funds through FEMA's Individual Assistance program for the December and January storms. An additional \$21.2 million has been reimbursed to municipal governments and the state through FEMA's Public Assistance program for the disasters that occurred since October 2021.

Last year, Maine competed successfully for a \$69 million grant from the National Oceanic and Atmospheric Administration (NOAA) to improve the resilience of communities, the environment, and working waterfronts to extreme storms, flooding, and rising sea levels. This funding enables an ambitious and wide-reaching scope of work that accelerates existing programs like the Community Resilience Partnership and Maine Infrastructure Adaptation Fund, while developing new data, tools, regulatory options, and partnerships that will drive resilience outcomes for years to come.

Much of the activity funded by the NOAA grant will be coordinated by the newly created Maine Office of Community Affairs (MOCA). This standalone agency in the executive branch will foster better communication and partnerships between the state and communities. MOCA will serve as a one-stop shop within state government to provide coordinated and efficient planning, technical assistance, and financial support



to towns, cities, tribal governments and regional entities to help them better plan for common challenges, pursue solutions, and create stronger, more resilient communities. MOCA will support community and regional work on issues related to land use and development; housing and building codes; and community resilience and floodplain management. A new State Resilience Office within MOCA will coordinate the implementation of the NOAA grant's activities, new initiatives stemming from the LD 1 legislation described below, and the implementation of this plan.

The Commission's interim report published in November 2024 suggested strategies to reduce the risk of extreme storms and floods and actions to improve Maine's ability to respond and recover when the next disasters hit. Implementation has begun on several interim recommendations through legislation and agency action. Other interim recommendations are carried forward in this plan as actions for the state and its partners.

In January, the Governor and bipartisan leaders of the Legislature took an important first step to implement the Commission's interim recommendations. LD 1 "An Act to Increase Storm Preparedness for Maine's Communities, Homes and Infrastructure" creates the new State Resilience Office within MOCA and invests \$39 million in resilience measures, including:

- \$15 million to launch a Home Resiliency Grant Program for homeowners to strengthen roofs or

floodproof basements in their primary residence to protect against severe weather damage and reduce insurance losses.

- \$10 million for the Disaster Recovery Fund at the Maine Emergency Management Agency (MEMA) to provide the state's required share of the non-federal match for federal disaster recovery funds.
- \$9 million to launch the Flood Ready Maine initiative at the State Resilience Office, improving flood models, updating flood maps, and building regional capacity for floodplain management.

- \$800,000 to update emergency communications technology and early warning systems at MEMA.
- \$750,000 to establish the Safeguarding Tomorrow Revolving Loan Fund at MEMA, which will leverage additional federal funds to create a self-sustaining source of capital for infrastructure rebuilding and strengthening projects.

Maine has generated significant momentum through these and other state government efforts as well as across hundreds of communities, organizations, and businesses. This is just the start of the work that must be expanded and accelerated for Maine to meet the challenges ahead.

LD 1: Preparing Maine's Communities, Homes and Infrastructure for Storms

"An Act to Increase Storm Preparedness for Maine's Communities, Homes and Infrastructure" was introduced to the 132nd legislature as Legislative Document 1 (LD 1). Key components of the Act include establishing a Home Resilience Program through the Bureau of Insurance, improving emergency communications and disaster recovery funds, and establishing a State Resilience Office and Flood-Ready Maine initiative. All of LD 1 was funded by existing Other Special Revenues and federal funds, with no General Funds required.

- Home Resilience Program, \$15 million: Grant program for homeowners to strengthen primary residences against severe weather damage and reduce insurance losses (e.g., roof strengthening, basement floodproofing).
- Maine Emergency Management Agency, \$12 million: One-time funding for Disaster Recovery Fund as match for FEMA recovery funds, establishing a Safeguarding Tomorrow Revolving Loan Fund and a limited-period contract/grants specialist, and updating communications technology and early warning systems and a limited period communications system manager.
- State Resilience Office and Flood-Ready Maine Initiative, \$9.6 million: Establish the State Resilience Office at MOCA and federally funded positions, Flood-Ready Maine initiative to improve flood models and maps and develop an online data hub and geospatial data manager, Regional Certified Floodplain Manager initiative to increase NFIP participation and program coordinator.





Parts of Route 133 in Jay, Maine sustained heavy damage from runoff during an historic summer rainfall in June 2023 that required months of repairs. Credit: Maine DOT

2025 INFRASTRUCTURE RESILIENCE PLAN

The Commission developed the strategies and actions that follow by traveling to and learning from impacted communities around the state, hearing from experts in Maine and other states, and drawing upon the knowledge and experience of its members. The plan begins to consider the breadth of resources and capabilities needed over the next decade to lead Maine toward a more resilient future.

With the frequency and intensity of storms seemingly increasing every year, Maine must accelerate action, making both immediate preparations for the next storm and investing in capabilities and systems that build transformative, long-term resilience. The Commission's plan proposes a comprehensive set of reinforcing actions, capabilities, investments, and policies that build upon Maine's current momentum.

Overview & Scope

The Infrastructure Resilience Plan is organized into three pillars:

- 1. Strengthen Infrastructure and Reduce Disaster Risk** includes activities for identifying and reducing risk to infrastructure and assisting communities in Maine to understand and manage their risks.
- 2. Improve Disaster Preparedness, Response, and Rebuilding** contains activities to improve the readiness of Maine's communities, infrastructure, and emergency systems for future disasters.
- 3. Sustain Maine's Momentum through Strategic Investments** outlines investments to sustain and grow the capabilities and resources Maine will need to stay resilient in the decades to come.

This plan considers both public infrastructure and essential private infrastructure located in Maine. Public infrastructure in this plan refers to facilities, assets, and systems that are owned, operated, and maintained by public entities such as the state, tribal, county, and municipal governments to provide access, protection, or other services to people in the state of Maine. Examples include roads and bridges; drinking water, wastewater, and stormwater treatment facilities; and civic infrastructure such as town offices, fire and police facilities, and schools. Many other essential services are provided by private infrastructure, such as the electric grid, communications and broadband infrastructure, health care facilities, and vital economic infrastructure such as working waterfronts. The plan also includes a handful of actions that can help strengthen or protect non-infrastructure private property through incentives, higher standards, and education.

Tracking & Accountability

Each of the three pillars contains several strategies, which in turn contain a table of actions for implementation. Each action is assigned to a lead agency or organization as well as potential partners who can contribute to implementation. With over 50 actions and more than a dozen implementation leaders and partners, the plan requires 1) an entity that will track activity and report the plan's progress, and 2) an entity that receives those reports, provides accountability for the plan's outcomes, and assists in connecting to important constituencies for the purposes of communicating

the plan's progress and providing feedback to the lead agencies and organizations.

The Commission makes the following two recommendations:

- First, that the State Resilience Office be assigned to regularly collect information from each of the lead implementing agencies and organizations about the implementation status of each strategy and action, including efforts to secure new resources for actions that do not have existing resources.
- Second, that the Governor establishes a body whose purpose is to monitor implementation of the plan's strategies and actions. The body should be smaller in number than the Commission and be of a similar composition of representatives from state agencies, municipal governments, regional organizations, the private sector, the nonprofit sector, and the philanthropic community. The body should meet at least twice a year to receive reports from the State Resilience Office on the status of implementation and discuss communications with and from key constituencies.

Timeframes & Sequencing

Each of the plan's strategies includes tables containing specific actions for implementation. A timeframe for each action suggests the ideal period in which the activity should be carried out.

Generally, actions identified for "0-2 years" either have existing funding and staffing resources or can be initiated within existing funding and authorities. These early actions may be foundational to actions that come later, unlocking potential interdependencies and making possible more ambitious plans and strategies in the future.

Actions identified for "3-5 years" are likely to require new resources, new budget allocations, or new legislative authority. The lead entities and partners for these actions should begin now to consider how to develop the resources and capabilities needed to execute these intermediate actions.



The longer-term actions identified for “6-10 years” are not low-priority items. In fact, many of these actions would significantly accelerate Maine’s ability to increase resilience to extreme weather, floods, and other changing natural hazards. However, these are actions that may require additional conceptual development, planning, and investment or have outcomes that can be expected accrue on longer timelines. There is little reason for these actions to be delayed should favorable circumstances arise earlier than planned.

Measuring Progress

Tracking the progress of the infrastructure plan informs decision makers and the public, and helps evaluate whether evidence-based adjustments, enhancements, or replacements to policies and investments are necessary to meet resilience objectives. The following intended outcomes and key performance measures are established by the Commission to track the overall progress of the plan.

INDICATORS OF PROGRESS



Increased Financial Resources

Amount of state, federal, and philanthropic funds allocated annually to improving the resilience of state-managed infrastructure (roads, bridges, facilities, state parks, etc.).

Amount of state, federal, and philanthropic funds allocated annually to the Maine Infrastructure Adaptation Fund, Community Resilience Partnership, and other community assistance for resilient infrastructure.

Increased Participation in the CRP & Awareness of Natural Hazards

Percent of municipal and tribal governments actively enrolled or working with a service provider to enroll in the Community Resilience Partnership.

2035 TARGET 80% of municipal and tribal governments (currently 53%)

Percent of municipal and tribal governments that complete vulnerability assessments with funding and technical assistance from the Community Resilience Partnership or other sources.

2035 TARGET 50% of municipal and tribal governments (currently 20%)



Increased Flood Risk Information

Percent of organized and unorganized communities with flood hazards areas that have digitized flood maps.

2035 Target

100% of communities (currently 66%)



Legislation & Funding

As the sections that follow will describe, there is near-term work in the plan that is already under way or has resources allocated for the stated purpose. The plan indicates the status of these actions and identifies existing or anticipated resources that support them.

Many of the actions in the plan will require new resources. The state and communities will need to consider their needs comprehensively and assess the available sources of funding. Federal and state grants will be important sources but ultimately insufficient. State and local governments will need to consider other ways of generating new resources, whether through increasing revenues, borrowing, or relying on insurance — with sound approaches potentially applying a mix of all three.

Communication & Education

This plan is an opportunity to engage people, communities, and businesses in the urgency and the processes

of building resilience. The state will work with stakeholders, including members of the implementation monitoring body, to identify and reach key audiences and constituencies. Key audiences that can eventually become partners for communication might include the regional councils; municipal, county, and tribal governments; service provider organizations; businesses; nonprofits, and the philanthropic community.

The state will work with stakeholders to identify existing venues for engagement where key audiences already gather, such as town council meetings, conferences, government and industry association meetings, webinars, and others. The state will develop engagement materials such as slide decks and talking points. Importantly, the state and stakeholders will also work together to gather and communicate the stories of people, communities, and businesses who are impacted by severe weather and other impacts of climate change as well as those who experience the benefits of the plan's strategies.

I. Strengthen Infrastructure and Reduce Disaster Risk

1. Identify, prioritize, and strengthen vulnerable infrastructure.

A whole-of-government approach is needed to make Maine's infrastructure more resilient. Governments at the local, regional, and state levels need to understand what infrastructure is most vulnerable, prioritize needs, allocate scarce resources, and take action to mitigate urgent risks. To help prioritize investments within categories of vulnerable infrastructure, the Commission suggests that state agencies and communities consider the following criteria: 1) protection of life safety, 2) preservation of public health, and 3) prevention of economic damages.

Components of this work are underway. State agencies are currently conducting vulnerability assessments of state-owned and leased assets that will be completed in early 2026. The assessment is detailing the exposure of buildings and facilities to changing natural hazards, determining the state's risk-tolerance for certain asset types, and developing interventions to mitigate risks to the assets, operations, and agency missions. These

assessments build on and complement other ongoing risk analyses and planning efforts, including MEMA's state hazard mitigation plan and dam safety program, long-term capital project planning by Maine DOT and other agencies, and the Public Utilities Commission requirement for climate protection planning by the major electric utilities.

Nearly 100 communities have completed or are currently conducting vulnerability assessments with grants from the Community Resilience Partnership, Coastal Communities Grant Program, Shore and Harbor Planning Grant Program, and assistance from service provider organizations. Uncovering vulnerabilities deeper within systems and understanding the risk of multiple "cascading" or "compounding" failures may require more effort and sophisticated methods than most communities can muster alone, so assistance is necessary. Last year the Partnership added new technical assistance grants specifically for vulnerability assessments. To date, 31 communities have partnered with regional councils and other service provider organizations through this opportunity.



Damaged working waterfront structures in New Harbor show the force of storm surge on waterfront infrastructure. Credit: Island Institute

Critical Infrastructure: Protecting People through the Built Environment

Billions of dollars are needed for long-term infrastructure improvements for any given sector. The Commission was tasked with examining the challenge Maine faces in long-term planning, and opportunities to avoid catastrophic costs and impacts through creative solutions. “Critical infrastructure” is distinguished from all infrastructure by the impact that disruption would have on public safety, security, health, and the economy. Bridges, roads, wastewater treatment plants, drinking water, communications, and working waterfronts fit within this category to varying degrees. The degree of criticality for a given structure depends on factors like its condition, age, and the services it provides. In the context of climate resilience and extreme events, the vulnerability of critical infrastructure is dependent upon its level of exposure to hazards (such as flooding or high winds) and its ability to withstand and recover from impacts. Regular maintenance and repairs are one piece of ensuring safety, and strategic resilience investments are essential for long-term durability and adaptability.

Wastewater Treatment Plants

There are 150 publicly owned wastewater treatment facilities in Maine. Wastewater infrastructure and facilities are often located in places that are low lying to take advantage of gravity fed collection systems and nearby surface waters for discharge, making them susceptible flooding. These facilities contain piping, mechanical systems, and electronic equipment, which can be damaged when submerged by floodwaters. According to the most recent Environmental Protection Agency Clean Watersheds Needs Survey, Maine will need to spend more than \$2 billion to meet wastewater improvement and resilience needs. The Maine Department of Environmental Protection (DEP) has conducted flood and hazard risk assessments for many of the facilities and support mitigation efforts through a revolving loan fund and loan forgiveness with climate resilience planning. Resilient solutions may include relocation, elevation, and hard armoring of facilities, all of which are in addition to existing maintenance needs.

Drinking Water

Drinking water infrastructure in Maine includes both public water systems and private wells. Both the quality and quantity of drinking water needs to be ensured for all Maine people. In collaboration with MEMA, the Maine Center for Disease Control & Prevention (CDC) has surveyed all public water systems to assess risk, including an analysis of flooding hazards at all source wells. The survey highlighted the vulnerability of public water sources to climate impacts, such as drought, saltwater intrusion, flooding of public wellheads, power outages, and pollutant runoff. To address these risks, the Maine CDC is prioritizing redundant sources and systems, backup power, vulnerability assessments, and emergency plans for local drinking water systems.



Communications

Reliable communication system infrastructure is critical for emergency management, ensuring timely dissemination of warnings, coordination of response efforts, and public safety during disasters. Reliable internet and phone services allow emergency responders and public officials to share updates about extended outages, road closures, and other infrastructure changes such as drinking water advisories. Effective communication was one of the biggest issues raised by communities in listening sessions across the state. The ability of Maine people to communicate with one another is vital to relaying information between family, friends, and neighbors. In communities that may already have limited access to broadband or cell service, such as rural or remote areas, or populations that may have additional communication barriers such as older Mainers or the non-English reading public, wide-reaching and accessible communication is particularly important. As climate-related threats intensify, resilient and redundant communication networks help states maintain connectivity, support first responders, and facilitate rapid recovery efforts.

Roadways, Culverts, and Bridges

Reducing vulnerabilities across transportation infrastructure is essential for safety, effectiveness, and cost. Between 2014 and 2024, Maine DOT received approximately \$1.5 million annually in emergency relief dollars from the Federal Emergency Management Agency (FEMA) to repair storm damage. As one of its efforts to prepare for future storms, Maine DOT has started preliminary engineering on seven climate-related projects located in coastal environments that currently experience flooding. Construction cost estimates have been completed on 5 of the 7 projects, with estimates ranging from \$3 million to \$45 million dollars per project. As a large, rural state, Maine's roadways and bridges are critical to the restoration of power and are a life-line to accessing needs such as food and medical care. Culverts are essential elements of flood prevention and the protection of roadways for both coastal and inland environments. A large number of state and local culverts are undersized and at risk of overtopping or washing out during storm events, causing a road to be closed until repairs are possible. Maine DOT has identified 8 miles of state-managed roads that are projected to experience flooding in the 1.5-foot sea level rise scenario and may identify more roadways at risk when new data is available.



Working Waterfronts

Of Maine's 3,500 miles of coastline, less than 20 miles is considered working waterfront. Maine's working waterfronts are vital to the state, both economically and culturally, and access to the ocean is crucial to Maine's identity and to the commercial fishing and aquaculture industries. Infrastructure such as docks, wharves, and piers were devastated during the severe storms of January 2024, highlighting the need to strengthen and protect public and private working waterfront access. The majority of working waterfronts are privately owned, and there are ongoing conversations among stakeholder groups about strategies and partnerships to protect working waterfront properties and shoring up aging and vulnerable infrastructure.

Electric Grid

Recent extreme weather and disasters have demonstrated the need for increased resilience and reliability of the electric grid in Maine. Reliability data and reporting, grid planning, and grid innovation and modernization are three approaches to understanding and addressing vulnerabilities of the energy grid. In 2022, the Legislature required Maine's two investor-owned utilities to file integrated grid plans and all electric utilities to file climate change protection plans that ensure utility infrastructure is prepared for future storm events and ready to transmit and distribute electricity to its customers. In 2024, Governor Mills announced \$6.6 million in federal grant awards to six Maine utilities and technology providers to deploy electrical grid resilience projects in communities across the state.

Critical infrastructure: Physical systems, facilities, and assets (such as buildings, roads, and wastewater treatment) vital for the functioning of society, whose disruption would impact public safety, security, and health. Critical infrastructure is also determined by economic stability and the livelihoods impacted by the destruction of a structure, such as wharves and piers in Working Waterfronts.



A work crew wraps up installation of the new underground stormwater retention system in Damariscotta last September. Credit: Town of Damariscotta

As the state and communities identify resilience needs and projects, Maine will need a robust workforce of planners, engineers, and construction workers to carry out these projects. The private sector depends on a reliable stream of projects to justify investments in new equipment and additional personnel. With funds from the state's NOAA grant, the Community Resilience Partnership will make engineering services available at no cost to communities. These services will take 20 local green infrastructure projects from concept to design, resulting in engineering plans that communities can use to seek implementation funding and bid for construction. As technical assistance, capacity building, and planning grants increase the volume of community projects that are ready for implementation, engineering and construction firms will need a larger skilled workforce. Apprenticeship programs and higher education intuitions can help meet these demands.

Flood Risk Disclosure Law

In April 2024, the Maine Legislature passed a flood disclosure law requiring real estate sellers to provide buyers with flood risk information. Sellers must disclose if a property is in a FEMA-designated flood hazard area, any past flood events, active flood insurance costs, and prior flood-related claims or disaster aid. This law enhances transparency, ensuring buyers understand potential risks before purchasing. Many buyers overlook flood risk, so this measure helps them make more informed decisions and know when to take proactive steps to avoid future losses.



A stream crossing on Route 2 near New Sharon was improved in 2023 and survived the flooding that December. Credit: Maine DOT

“About 10 years ago we decided to change our state culvert standards from a 25-year storm to a 100-year storm sizing. It was controversial at the time. However, today we can look back and say we have not lost a single culvert that has been upgraded to the new standards.”

—JOYCE TAYLOR, MAINE DOT CHIEF ENGINEER



Strategy Implementation Table I. 1

Activity	Timeframe	Lead (and partners)	Status	Resources
Assess the vulnerability of state-owned assets to climate change hazards and extreme weather. Develop vulnerability assessment protocols, resources, training, and assistance for communities to enable assessments at the community or regional levels.	0-2 years	All state agencies with GOPIF and State Resilience Office	In progress, assessment began in March 2025	Existing FEMA Hazard Mitigation Assistance grant
Develop a prioritization framework and appropriate metrics for investments within categories of vulnerable infrastructure using the following criteria: protection of life safety, preservation of public health, prevention of economic damages. Emphasize community input and leadership with support and guidance from the state.	0-2 years	GOPIF (with State Resilience Office and Governor's Infrastructure Implementation Committee)		Existing FEMA Hazard Mitigation Assistance grant
Develop a robust pipeline of local infrastructure resilience projects by providing planning, design, and engineering assistance to communities, thereby generating a steady stream of work for businesses.	0-2 years	MOCA Community Resilience Partnership		Existing NOAA CRRC grant
Expand existing workforce training programs, including apprenticeships and pre-apprenticeships, service corps, and UMS's internship initiatives, with a focus on resilience-related fields such as construction, engineering, and community planning.	3-5 years	Dept. of Labor (with University of Maine System, Maine Community College System, Career and Technical Education programs, and Construction Training Programs)		
Recruit more students into resilience-related fields such as engineering and community planning.	6-10 years	University of Maine System, Maine Community College System and Career and Technical Education programs		



2. Assist communities to effectively assess and reduce risk.

With nearly 100 communities across Maine already assessing the vulnerability of their own assets, resources, and community members, now is the time for the state to increase the quantity and sophistication of tools and services to help communities build on their momentum. Over the next several months, the State Resilience Office at the Maine Office of Community Affairs will begin to coordinate new and existing activities to assist communities. The office will develop additional tools and technical assistance to assess and communicate about risks. Maine DOT is currently developing a Maine Coastal Flood Risk Model that will provide maps for sea-level rise scenarios and coastal storm flood risks. The State Resilience Office and Maine DOT will develop a user's guide to help different audiences understand and utilize information from the model. LD 1's Flood Ready Maine initiative and activities under the NOAA resilience grant will assess needs for inland flood risk information and tools, which will entail inland flood modeling and mapping, easy-to-understand user guides, and other tools that make flood risk information accessible for different audiences.

Crucially, Maine is expanding investments in regional capacity to assist communities to set their own priorities and implement projects that meet local and regional needs. Maine has 10 regional councils that assist community planning for growth management,


economic development, housing, public transportation, and community resilience, and other issues. Funding from Maine's NOAA grant has expanded upon a two-year pilot project to include all 10 of the regional councils for an additional five years. Staff at each regional council are now assisting communities to identify resilience priorities and develop project funding proposals. Building on this model, the Flood Ready Maine initiative created by LD 1 will fund a certified floodplain manager position in each of the 10 regional councils, growing the capacity and expertise available to communities to reduce risks.

Philanthropy and the nonprofit sector should be a key part of long-term resilience building in Maine. There is a need for capacity building in rural communities and regions and for education and community engagement in all parts of the state. Philanthropic entities that have established relationships with community organizations are ideally situated to develop and tailor programming to meet local and regional needs for information, dialogue, and implementation. Pilot projects are one way philanthropy can encourage innovation, test new approaches to engagement and capacity, and scale up successful models. Philanthropy also plays an important role in land conservation, a role that can be expanded to include voluntary land acquisition for storm and flood risk reduction and habitat benefits.

Capacity building: The effort and process of adding resources that enhance an organization's operations, skills, and functions. This can include new staff, volunteers, trainings, guides, templates, model ordinances, and other tools that support ongoing development (as opposed to a one-time intervention).



Maine Regional Councils

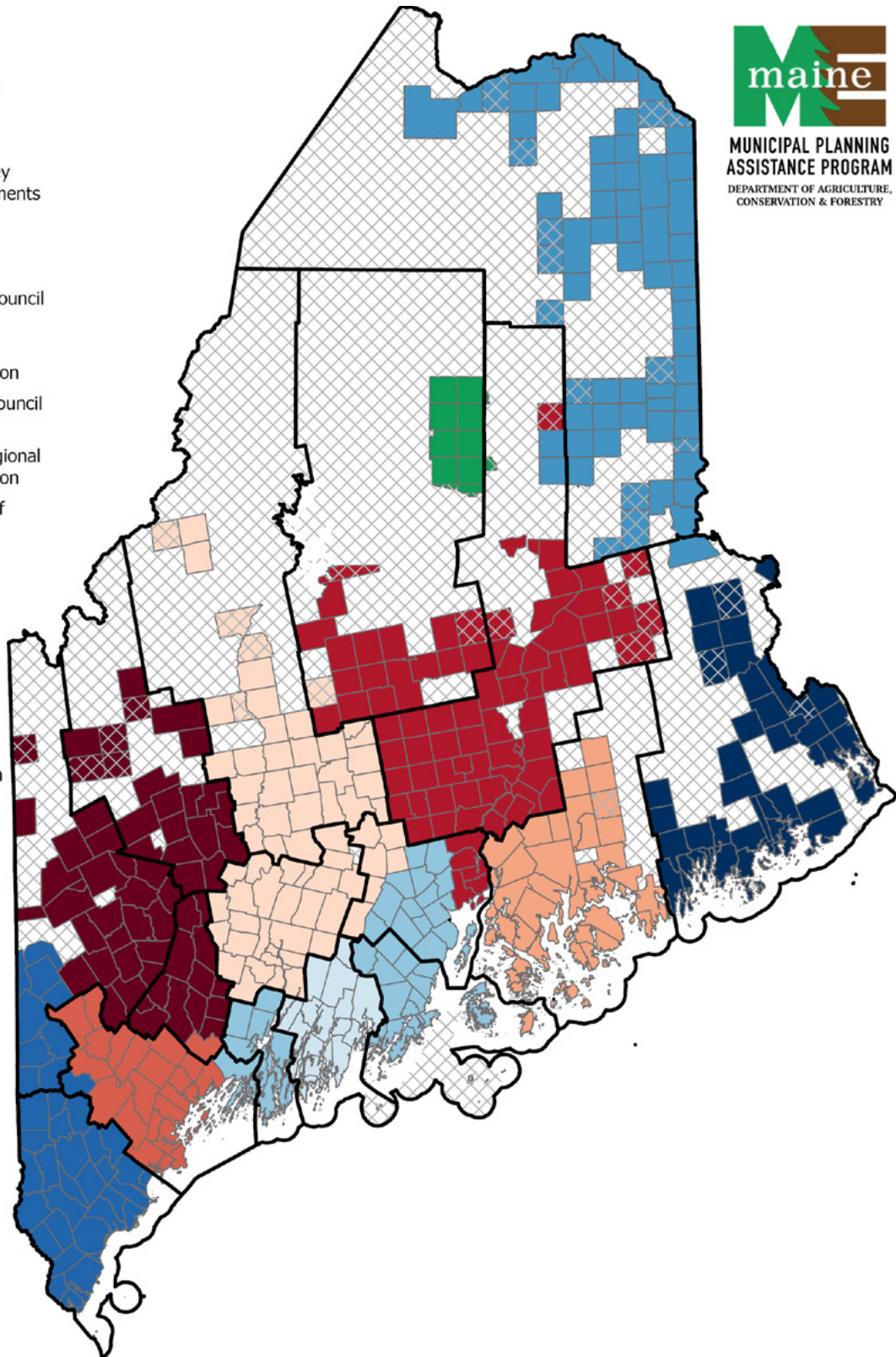
-  Baxter State Park
-  County Boundary
-  Land Use Planning Commission

Regional Councils

-  Androscoggin Valley Council of Governments
-  Eastern Maine Development Corporation
-  Greater Portland Council of Governments
-  Hancock County Planning Commission
-  Kennebec Valley Council of Governments
-  Lincoln County Regional Planning Commission
-  Midcoast Council of Governments
-  Northern Maine Development Commission
-  Southern Maine Planning and Development Commission
-  Sunrise County Economic Council/ former Washington County Council of Governments



20
Miles



Maine Office of Community Affairs: A New One-Stop Shop for Communities

The Maine Office of Community Affairs (MOCA) is a new standalone state office that partners with Maine communities to strengthen planning and implementation at the local level. It serves as a one-stop shop within state government to provide coordinated and efficient planning, technical assistance, and financial support to towns, cities, tribal governments and regional entities, to help them better plan for common challenges, pursue solutions, and create stronger, more resilient communities.

Starting in July 2025, MOCA will reorganize seven existing state programs involving land use, housing and flood plain planning, as well as building codes, coastal management, and climate resilience. Other state programs that provide services to communities on these and other related topics will remain in other agencies, with the Office ensuring increased coordination across agencies and program staff.

MOCA will also include a newly established State Resilience Office and staff, supported by the historic \$69 million climate resilience grant awarded to Maine by the National Oceanic and Atmospheric Administration. The staff of the reorganized programs and the State Resilience Office will work together to enable each community to find the support services that are right for them.

An early project for the MOCA will be developing a single grant portal for communities to access multiple state grant programs. Programs involving land use, housing and floodplain planning, as well as building codes, coastal management, and some climate resilience funding and programs, will be reorganized into the new Office starting in July 2025. This includes:

- Community Resilience Partnership, currently in the Governor's Office of Policy Innovation and the Future
- Maine Coastal Program, currently in the Department of Marine Resources
- Maine Floodplain Program, currently in the Department of Agriculture, Conservation and Forestry
- Municipal Planning Assistance Program, currently in the Department of Agriculture, Conservation and Forestry
- Housing Opportunity Program, currently in the Department of Economic and Community Development
- Maine Uniform Building and Energy Code/Code Enforcement, currently in the Office of State Fire Marshal
- Volunteer Maine, an independent state office currently connected to the Department of Education that leads to a stronger Maine through volunteerism
- The State Resilience Office, a new office supported by the NOAA resilience grant



MOCA Director
Samantha Horn



MAINE OFFICE OF
**Community
Affairs**



Action Plan for Communities

Across the state of Maine, communities are working to advance disaster preparedness and infrastructure resilience at the local level. Below are a set of steps and resources communities can use to take action to address vulnerabilities and invest in resiliency projects.

Community action steps:

1. Complete a Vulnerability Assessment to identify risk and needs, utilizing a Community Resilience Partnership (CRP) grant.
2. Create or update a local capital investment plan to prioritize among resilience and other community needs.
3. Establish a resilience reserve account to start saving for future resilience projects, local cost share for grants, or unexpected storm damage.
4. Match mitigation and adaptation projects to funding and financing options with the help of a CRP Regional Coordinator.

Resources for communities:

- Community Resilience Partnership (CRP) — Participation in the Community Resilience Partnership is available to all municipalities, federally recognized tribes, and unorganized territories in Maine. The benefits of joining the Partnership include access to funding opportunities, help with project development and grant writing, trainings on important topics, and peer-to-peer learning events. The Partnership offers grants and technical assistance for vulnerability assessments.
- CRP Regional Coordinators — The Regional Coordinator Program consists of a network of assistance providers at each of Maine's 10 regional councils who provide support to communities enrolled in the Partnership. Examples of services include project development and management, technical assistance, community engagement support, process guidance, and grant writing and management services.

Resilience in Action: Van Buren

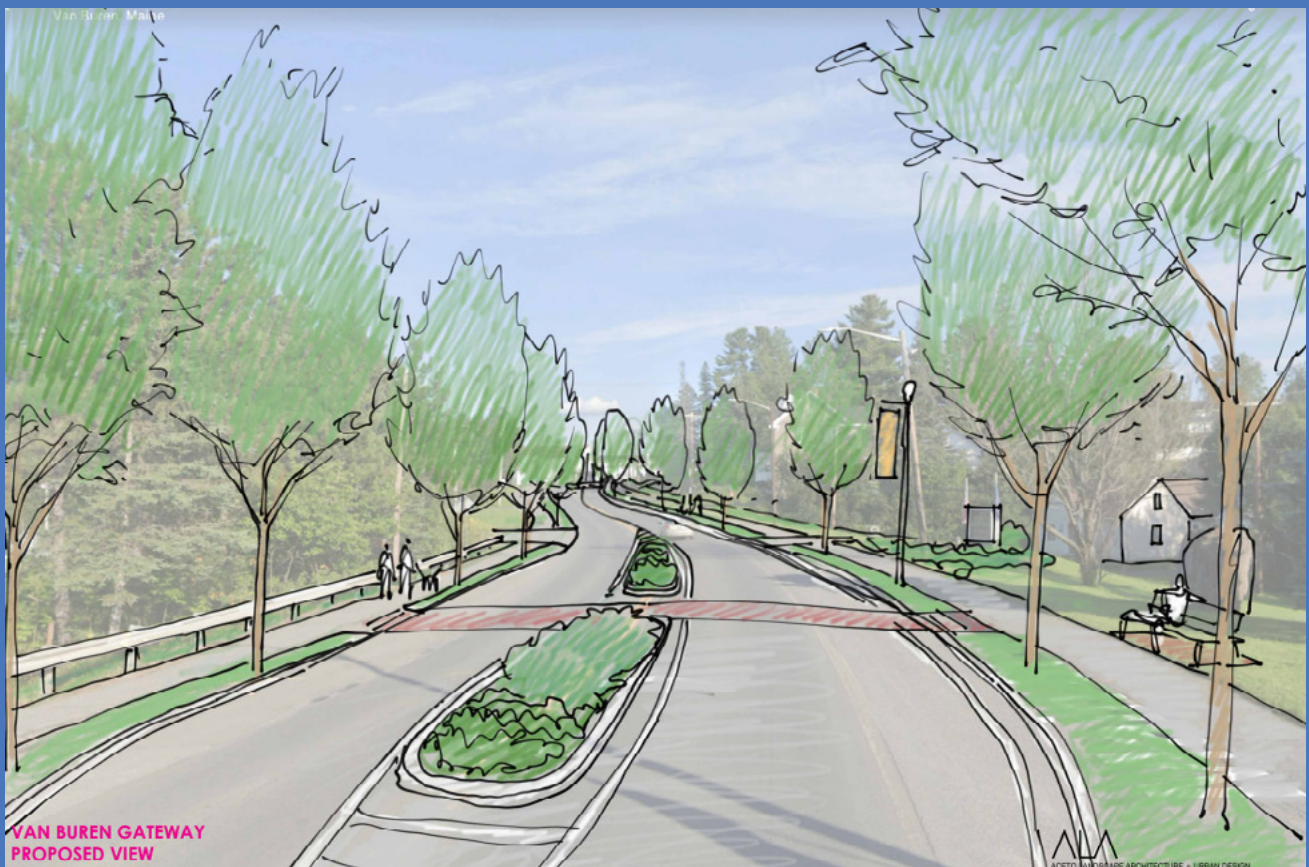


“With FEMA’s assistance, homeowners in vulnerable areas volunteered to relocate to safer ground, and the properties were deeded to the town. These former residential lots are now being transformed into a resilient community space. By creating a public park with a community garden and walking path, we are not only revitalizing the area but also enhancing our town’s ability to adapt to future challenges, promoting environmental sustainability, and fostering community cohesion.”

—LUKE DYER
VAN BUREN TOWN
MANAGER



Credit: Town of Van Buren



Strategy Implementation Table I. 2

Activity	Timeframe	Lead (and partners)	Status	Resources
Expand tools and funding for communities and regions to assess vulnerabilities in infrastructure, including culverts and stormwater assets, drinking water and wastewater systems, transportation, communications, and other public and private facilities that are essential to local economies.	0-2 years	MOCA State Resilience Office and Community Resilience Partnership, with DACF, DOT MIAF, and other agencies	Community Resilience Partnership added technical assistance for vulnerability assessments in 2024.	Existing FEMA BRIC and NOAA CRRC grants; Community Resilience Partnership grants
Increase state and regional capacity to assist communities with flood and natural hazard risk reduction, prioritizing communities that are rural and vulnerable to natural disasters.	0-2 years	MOCA with the 10 regional councils	LD 1 creates Flood Ready Maine initiative and funds regional certified floodplain managers	LD 1 authorizes funding
Encourage philanthropies and nonprofit organizations to support capacity-building, pilots, and community engagement and education for resiliency.	0-2 years	Maine Community Foundation (with philanthropies and nonprofits)		
Develop a sustained public communications strategy to raise awareness, engagement, and support community dialogue about resilience efforts and long-term challenges.	0-2 years	MOCA State Resilience Office with other agencies		Existing NOAA CRRC grant
Establish a homeowners resilience program to provide grants to residents to strengthen their homes against damage and loss from severe weather.	0-2 years	DPFR Bureau of Insurance	LD 1 creates the Home Resiliency Program	LD 1 authorizes funding
Assist towns to take actions that reduce flood risk, protect property, increase participation in the National Flood Insurance Program, and lower flood insurance premiums.	0-2 years	MOCA State Resilience Office and Floodplain Management Program	LD 1 creates Flood Ready Maine initiative	LD 1 authorizes funding
Assist towns to establish resilience reserve accounts and capital investment plans.	3-5 years	MOCA Community Resilience Partnership		Community Resilience Partnership grants
Provide data and education for communities to establish “resiliency overlay districts” using the best available science and data to reduce risk in areas where additional protective measures are needed.	3-5 years	MOCA		
Incentivize communities to take regional or watershed approaches to planning, prioritization and investment in risk reduction and resilient infrastructure.	6-10 years	MOCA		Community Resilience Partnership grants



3. Improve and protect energy infrastructure and increase energy resilience for customers.

Electricity outages are one of the most common and disruptive storm impacts to people and businesses in Maine. As a rural and heavily forested state, two significant challenges for the electric grid are long electricity distribution lines to communities and a high probability of tree damage during wind or ice storms. In 2024, over 50 percent of outage hours were the result of tree damage both in and out of utility rights-of-way. As Maine transitions toward a clean energy economy and electrifies more energy uses, making the grid more reliable and customers more energy resilient must be a priority.

The actions below build upon work that is already in progress. The Governor's Energy Office (GEO) is implementing the Maine Energy Plan and the State Energy Security Plan, while the Maine Public Utilities Commission (PUC), is overseeing 10-year Integrated Grid Plans and Climate Change Protection Plans that Maine's investor-owned utilities are developing as required by law, as well as an inquiry into improving resiliency and addressing rising storm costs.

The Governor's Energy Office, in collaboration with the Public Utilities Commission, utilities, and Maine Emergency Management Agency will improve access to information about outage impacts by developing an initial critical facility map that includes available energy resilience-related information. The Governor's

Energy Office will facilitate relevant partners to explore the feasibility of utilizing higher resolution data to support a power outage summary dashboard that offers the public greater transparency into reliability metrics and outage trends over time. The map and dashboard will enable further community engagement and energy resilience planning. Colorado's Critical Infrastructure and Facility Prioritization Process is an example of this inventory, prioritization, and outreach.

Maine will accelerate the adoption and deployment of clean energy technologies that can provide resilience to energy customers. In a state with some of the most frequent electricity outages, battery storage is a technology with significant benefits for energy resilience. Batteries that store enough energy for a few hours of use can help prevent some of the basic nuisances of power outages while potentially participating in demand management initiatives. Combining battery storage with on-site solar or wind generation can extend the resilience benefit substantially. Microgrids can help critical facilities like hospitals, shelters, warming and cooling centers, and emergency operations centers maintain a high level of functionality during extended power outages, improving safety and services for residents who might be at greater risk during power outages. The federally funded Maine Grid Resilience Grant Program provides implementation funding for eligible grid resilience activities, including microgrid deployment. In 2024, the Governor's Energy Office announced the first round of awards under the program, including a community microgrid project. Funding for electric grid infrastructure improvements will be a continued focus, considering both ratepayer-funded options as well as alternative funding sources. Education about the benefits of community microgrids can expand interest and opportunities for deployment.

The state will continue to collaborate with regional partners and regulators to ensure reliable electricity generation supply during winter months. As long as the New England grid is reliant on natural gas for generating electricity, Maine will continue to be subject to volatile global natural gas markets that can adversely affect

energy prices and availability. The availability of natural gas for electricity generation can fluctuate during the winter months when demand rises for heating homes. During prolonged cold periods, natural gas availability for generation can be limited, causing prices to increase and the region to rely more upon generation facilities that utilize other fuels such as oil. Home heating fuels (oil, propane, and kerosene) face similar global and regional volatility issues, and deliveries can be constrained during extended periods of very cold weather and winter storms. Road closures due to culvert washouts or fallen trees can prevent fuel deliveries at critical times for residents. Multiple state agencies and fuel delivery companies are focused on this issue, including the Governor’s Energy Office, MEMA, Maine DOT, and Efficiency Maine Trust.

State Spotlight: Colorado

The State of Colorado’s Microgrids for Resilience Program provides planning and construction grants for projects at critical facilities and community centers in vulnerable areas. Microgrid technology that employs on-site batteries and solar generation can help critical facilities like hospitals, shelters, and emergency operations centers maintain a high level of functionality during extended power outages.

The diagram illustrates a microgrid system. At the top, a 'Utility Grid' is represented by three power lines. Below it, a dashed box labeled 'Microgrid' contains several components. On the left, under the heading 'Power Supply', are 'Renewables' (solar panel and wind turbine), 'Battery Storage' (a battery icon), and a 'Generator' (a generator icon). On the right, under the heading 'Load Center or Power Demand', are 'Commercial and Industrial' (a factory icon), 'Residential' (a house icon), and 'Electric Vehicles' (a car icon). A 'Microgrid Controller' (a computer monitor icon) is positioned at the top left of the dashed box. A 'Microgrid Interconnection' (a plug icon) is at the top center of the dashed box. Arrows show the flow of power: from the Utility Grid to the Microgrid Interconnection, from the Microgrid Interconnection to the Microgrid Controller, and from the Microgrid Controller to the various power supply and load components within the microgrid.

Strategy Implementation Table I. 3

Activity	Timeframe	Lead (and partners)	Status	Resources
Facilitate the collection and publication of trend data on electricity outages and grid vulnerabilities.	0-2 years	GEO (with PUC, MEMA, and utilities)	Aligned with Maine Energy Plan Objective B, Strategy A	
Monitor energy reliability, volatility, and costs for electricity generation and delivery of fuels for home heating during extreme cold periods and winter storms. Continue to address through the advancement of the Maine Energy Plan and other efforts.	0-2 years	GEO (with regional industry partners)	Aligned with Maine Energy Plan, Objective B, Strategy A	
Develop an initial critical facility map using available energy resilience-related information.	3-5 years	GEO (with PUC and utilities)		
Enable the adoption of clean energy powered microgrids that enhance storm resilience, especially for critical services and facilities that serve vulnerable populations.	3-5 years	GEO (with PUC and utilities)		

4. Protect and promote resilience across a diverse mix of public and privately owned working waterfront infrastructure.

Maine's coastal communities, working waterfronts, fisheries, and aquaculture businesses are directly impacted by intense storms, sea-level rise, storm surge, and the rapidly changing Gulf of Maine ecosystem. Maine's working waterfronts are vital to the state, both economically and culturally, and access to the ocean is crucial to Maine's identity and future blue economy.

To continue Maine's long history of a diverse working waterfront along the coastline, Maine needs to implement local and regional approaches that protect and support a mix of public and privately owned working waterfront infrastructure, in part by developing tools and support for all types of working waterfront infrastructure. To maintain public working waterfront infrastructure as the long-term backbone for commercial fisheries and other blue economy sectors in Maine, Maine should invest in resilience upgrades and ongoing maintenance to withstand future sea level rise and extreme storms. To support privately owned working waterfront infrastructure, Maine should invest in providing support services, including technical assistance to complete resiliency upgrades, engineering and permitting support, and business planning support for future generations enabling strong working waterfront businesses and helping avoid the need for rapid crisis response.

To inform these efforts, Maine needs a systematic method to compile inventory data across all types of working waterfront infrastructure. A rapid inventory should take into consideration economically vital working waterfronts, working waterfronts that support socially vulnerable populations, and working waterfronts that form a base for the future of fisheries. This work can build on existing knowledge from nonprofits and academic researchers as well as local efforts like the Downeast Conservation Network and existing knowledge of working waterfront stakeholders. Local knowledge should ground truth and validate the most vulnerable working waterfronts.

Strategy Implementation Table I. 4

Activity	Timeframe	Lead (and partners)	Resources
Identify and map the most vulnerable working waterfront infrastructure through a systematic, statewide approach, considering economically vital facilities, social vulnerability, and future growth opportunities. Ground truth vulnerability data with local knowledge from harbor masters and town staff.	0-2 years	DMR/MOCA Maine Coastal Program (with working waterfront stakeholders)	
Invest in resilience upgrades and ongoing maintenance of public working waterfront infrastructure to withstand sea level rise and extreme storms.	0-2 years	DMR and DOT	Existing NOAA CRRC grant and NOAA CDS funds
Strengthen privately owned working waterfront infrastructure by providing business resiliency planning support and engineering and permit assistance to design and complete resilience upgrades.	0-2 years	MOCA/DMR Maine Coastal Program (with DMR, DECD, DEP)	NOAA CDS funds
Create new policy options, funding, and technical assistance, such as an entity outside of state government with the capacity to protect critical private working waterfront properties at risk of conversion to non-marine uses.	3-5 years	MOCA/DMR Maine Coastal Program (with DMR, Land for Maine's Future, and working waterfront stakeholders and the philanthropy community)	

Challenges of Inventorying Working Waterfront Vulnerabilities along the Maine Coast

Inventorying working waterfronts along Maine's coastline is an important step in identifying vulnerabilities, and prioritizing funding for resiliency measures, but faces many challenges. Maine's diverse array of working waterfronts is composed of both public and privately owned properties. Town officials such as harbor masters, town managers, and selectmen, many of which are volunteers, have limited capacity to contribute data to inventorying public working waterfronts. To complete vulnerability inventories of private working waterfront, the sensitivity of private wharf data is a barrier. It is difficult to reach people, build trust, and receive information about precious shore access arrangements, especially where they involve private handshake agreements and concerns about local conflict or liability issues. In addition, following the devastating January 2024 storms, many working waterfront communities were overwhelmed and in recovery mode and had limited bandwidth to participate in inventorying and assessments. In addition, much of the repair, recovery and maintenance work was happening with volunteer labor, and often, with out-of-pocket funds, making tracking difficult.

Given the lack of an updated, comprehensive inventory of Maine's working waterfront, and differences between public and private working waterfront infrastructure (and the distinct importance of each), one of the main challenges the state faces is not knowing the scale of working waterfront vulnerability or how to characterize the data. There is a need for a systematic approach to data compilation.

In 2006, the Island Institute completed a coast-wide working waterfront inventory that found that working waterfront takes up only 20 miles Maine's extensive coastline. An updated, statewide comprehensive inventory is needed for Maine to effectively prioritize working waterfront protection efforts. Recently, the Sunrise County Economic Council updated the Washington County portion of the 2006 "Last 20 Miles Inventory" after the January 2024 storms, focusing primarily on public infrastructure, by requesting reports of storm damage to infrastructure from communities and reaching out by phone and email to community leaders and harbor masters. The inventory, though not comprehensive, and facing many of the inventorying challenges cited above — such as limited response from overwhelmed communities, and only select data on important privately held working waterfront — helps

provide a clearer view of working waterfront vulnerabilities in Washington County. To inventory intertidal access, primarily for the clam fishery, the Downeast Conservation Network with the Maine Coast Heritage Trust and Sunrise County Economic Council led a mapping exercise that was attended by shellfish harvesters, constables and committee members, in addition to local land trusts representatives. The challenge moving forward is how to complete and then steward this inventory, and how to create a source of funding and technical assistance that allows rapid response when opportunities arise to secure long-term intertidal access for shellfish industry.

Other recent inventory efforts led by organizations in the Working Waterfront Coalition provide important datapoints — such as state inventory of public boat access held by the Maine Coastal Program, properties identified through the Department of Marine Resources' Working Waterfront Access Protection Program in collaboration with Land for Maine's Future, efforts to assess working waterfronts of social and cultural importance based on where fishing license holders are selling product out of, and resources such as the Maine Coast Fishermen's Association Working Waterfront Inventory template. However, a statewide, systematic approach would guide the state in investing in services critical to support private working waterfront, and resiliency upgrades to maintain public working waterfront services along the coast for commercial fishermen and aquaculturists.





Understanding Working Waterfront Resiliency Funding Needs

Data and survey responses from recent efforts to understand working waterfront resiliency funding needs indicate that a large proportion of working waterfront sites have either damage from recent storms or deferred maintenance problems that threaten the future of the infrastructure's resilience. Following the January 2024 storms, public and private working waterfronts that sustained damage needed financial support. The state's one-time Working Waterfront Resiliency Grant awarded nearly \$23 million in grants to reconstruct and improve damaged wharves and piers that supported 10 or more commercial fishermen. To support smaller, privately owned properties rebuild — most of whom had infrastructure that was not covered by flood insurance and limited options to secure affordable loan funding — both the Maine Coast Fishermen's Association and Island Institute provided grants for rebuilding. The Maine Coast Fishermen's Association distributed \$5,000 grants to 45 properties through their Working Waterfront Fund for critical repairs. These funds helped cover the cost of materials

like planks and pilings, hiring labor to rebuild wharves, and cleaning up debris, with most recipients using the funds to complete the repair work themselves, as is an enduring tradition among fishermen. The Island Institute also distributed grants ranging from \$2,500 to \$10,000 to 50 awardees for storm related needs to commercial wharves, co-op wharves, family fishing wharves, boat yards, and aquaculture operations.

The rebuilding needs from these recent storms can help inform priorities for future funding: though each working waterfront property has unique challenges, funding to complete engineering and permitting design and pay for materials and construction costs to improve the resilience of infrastructure is needed for both public and private working waterfronts. In addition, for many properties, there is no external source of funding for repairs and resilience upgrades. Match requirements for grants are a significant barrier to obtain funding for many property owners, especially smaller family-owned properties.



II. Improve Disaster Preparedness, Response, and Rebuilding

5. Enhance communications during and immediately after emergencies.

Effective communication of timely and accurate information before, during, and following emergencies is both critical and challenging. During recent disasters, numerous communities relied on social media platforms to communicate with residents due to the absence of reliable alternatives. To address this issue, communities like Dover-Foxcroft are implementing subscriber-based mobile phone notification systems that allow users to receive text messages or emails with important information. These notifications are limited to individuals who opt in to the service, so a robust public education effort is required to onboard residents.

With investment from LD 1, MEMA will expand the availability of the Integrated Public Alert and Warning System (IPAWS). Unlike subscription-based systems, IPAWS allows for universal dissemination of Wireless Emergency Alerts, which are sent by cellular carriers to all mobile phones within a designated area without requiring prior user registration. MEMA will expand the number of public officials trained and authorized to issue alerts; add more languages to the service to reach more populations in Maine; and enhance the targeting of alerts to affected areas without alerting those outside the area with non-relevant information. These improvements will ensure the right audience receives the right information at the right time.

Technology alone will not solve all of the challenges of emergency communications. There is a need to improve the effectiveness of communicators and their messages, broaden and strengthen communication networks to reach difficult-to-contact populations, and prepare information receivers to know what actions to take when emergency notices are posted. MEMA will improve information sharing across different levels of government by building relationships with partners who can help tailor messages and delivery for certain audiences. This is especially important for difficult-to-reach populations such as people in remote places without phones and people for whom English is not a first language.

Strategy Implementation Table II. 5

Activity	Timeframe	Lead (and partners)	Status	Resources
Upgrade emergency communication systems, practices, and training for state, county, and municipal leaders to ensure dependable communication with residents during emergencies.	0-2 years	MEMA		LD 1 provides funding and staffing
Develop strategies to streamline and improve information sharing among state, county, and local emergency managers and officials.	0-2 years	MEMA		LD 1 provides funding and staffing
Develop and strengthen relationships with vulnerable communities to ensure that all Maine people can quickly access trusted sources of emergency communications and disaster response.	3-5 years	MOCA (with MEMA and the Office of New Americans)		



The Town of Dover-Foxcroft is implementing a subscriber-based cell-phone notification system that allows users to receive text messages or emails with important information. American Woolen Company Foxcroft Mill, Dover-Foxcroft, Maine. Credit: Jack Clukey

6. Strengthen emergency coordination and rapid reaction capabilities across governments and with the philanthropic and nonprofit sector to alleviate immediate post-disaster needs.

The demand for services and resources climbs dramatically in the aftermath of a disaster. MEMA, along with county and local partners, work quickly to identify the immediate needs of individuals, businesses, and local governments. As state agencies follow established procedures to request federal disaster relief resources, there is an opportunity to strengthen the role of non-governmental organizations that specialize in providing immediate relief needs, such as meals, cleanup services, and shelter.

The Island Institute, for example, quickly made small grants available for working waterfront businesses to stabilize and repair damaged wharves and waterfront buildings in the immediate aftermath of the January coastal storms. The Maine Coast Fishermen’s

Association, in cooperation with many organizations across the philanthropic community, also made small grants to privately owned fishing businesses for recovery activities. MEMA and the Maine Community Foundation will work with the nonprofit and philanthropy sector to plan and coordinate disaster relief activities closely with the state via the Emergency Operations Center and the Maine Long-Term Recovery Board.



Strategy Implementation Table II. 6

Activity	Timeframe	Lead (and partners)	Status	Resources
Develop and coordinate opportunities for the philanthropic and nonprofit sector to help fill needs not being met by disaster relief programs.	0-2 years	MEMA (with the Maine Long Term Recovery Board and philanthropy community)		
Increase engagement and education among county and municipal officials, the philanthropic and nonprofit sector, and donors about the mechanisms for requesting and providing disaster relief assistance.	3-5 years	MEMA (with Volunteer Maine, Maine Community Foundation, and other donors)		
Increase funding for emergency management staffing at state, county, and local levels.	3-5 years	State, county, and local governments.		
Assist communities to formalize networks and contracts for disaster recovery services (e.g., debris management, construction contractors).	3-5 years	MEMA (with county emergency management agencies)		

7. Expedite permitting for post-disaster rebuilding, infrastructure strengthening, and resilience projects.

The urgency to rebuild hundreds of damaged buildings, facilities, and infrastructure can strain regulatory agencies that have a statutory responsibility to review activities taking place in or adjacent to protected natural resources. Agencies expended enormous effort after the December and January storms to review permit applications with speed and urgency, prioritizing applications for rebuilding projects, but were limited by staff capacity. Additionally, state and federal permit requirements can increase project costs and lengthen timelines for property owners and construction firms. For example, work windows intended to protect environmentally sensitive areas can also compress construction schedules and shift activities to times of the year with less favorable weather, increasing project costs.

To prepare for the next disaster, the Department of Environmental Protection (DEP) has developed a Willing & Qualified Vendor Agreement that allows the department to utilize private-sector vendors to review license applications. As of early 2025, 13 vendors have agreed to participate. Additional vendors can be added when necessary. The DEP is currently utilizing these vendors to process a backlog of coastal permit applications following the January 2024 storm events and the overall higher volume of applications associated with increased clean energy development and economic activity in the state. In the future, vendors will be utilized on an as-needed basis when there are similar surges in license applications that the department does not have adequate staff capacity to process.

The DEP, in coordination with other agencies, will propose to the Board of Environmental Protection expansions in the types of projects that are eligible for the permit-by-rule process, such as making wharves and piers more resilient. Permit-by-rule is a streamlined approval for an activity that requires a permit under the Natural Resources Protection Act when the activity is carried out in certain locations and in accordance with specific standards to minimize environmental impact.

The DEP will suggest to the Legislature additional statutory exemptions, with environmental safeguards, for certain emergency work during and immediately following disasters. The DEP will convene a regulatory reform forum to identify potential changes to Department regulations to facilitate climate resilience, informed by outreach to affected stakeholders, including the private sector. The DEP will collaborate with other state agencies to create educational materials to raise awareness of permitting requirements and about the types of disaster response and recovery activities that are exempt from permitting or eligible for an expedited permit-by-rule. This can help get answers to the public quickly and ensure that applicants have the information they need to submit the appropriate application. Furthermore, state agencies will coordinate federal engagement concerning revisions to the Army Corps of Engineers' General Permit for Maine, seeking to reduce in-water work restrictions, duplicative permit process, and review timelines.



Maine Department of Environmental Protection storm remediation responders work to clean up an oil spill inside a basement in Bingham, Maine following the historic storms of 2024. Credit: Maine DEP

Strategy Implementation Table II. 7

Activity	Timeframe	Lead (and partners)	Status	Resources
Develop temporary contracts at state agencies to increase capacity for permit application review during periods of high demand.	0-2 years	DEP (with other permit-review agencies)	Feb 2025: DEP has 13 willing and qualified vendors to assist	
Develop a list of suggested regulatory exemptions with appropriate environmental safeguards for emergency activities during and immediately following a disaster.	0-2 years	DEP (with other agencies)	Expand on LD2030 (2024)	
Convene a regulatory reform forum to identify potential changes to Department regulations to facilitate climate resilience, informed by outreach to affected stakeholders, including the private sector.	0-2 years	DEP (with other agencies)		Existing NOAA CRRC grant
Engage federal agencies (such as the Army Corps of Engineers and NOAA Fisheries) about permitting improvements such as restrictive in-water work windows, duplicative state and federal permits, and lengthy agency review times.	0-2 years	DEP and GOPIF (with other agencies)		
Create educational materials to raise awareness of permitting requirements, explain eligibility for expedited state permitting through permit-by-rule, and provide guidance for emergency rebuilding work.	0-2 years	DEP (with MOCA)		Existing NOAA CRRC grant and new positions requested in budget
Propose expanded uses of permit-by-rule and include additional resilience-related practices (e.g., making wharves and piers more resilient).	3-5 years	DEP		

Maine Department of Environmental Protection Supporting Resilience through Streamlined Permitting

The Maine Department of Environmental Protection (DEP) safeguards Maine's natural resources by working to preserve and enhance the environment while ensuring public access and enjoyment. The Natural Resources Protection Act (NRPA) was enacted by the Legislature to protect the State's natural resources such as coastal and freshwater wetlands, coastal sand dune systems, lakes, significant wildlife habitats, fragile mountain areas, and rivers, streams and brooks.

In 2024, the DEP introduced emergency legislation in response to the multiple storm events of December 2023 and January 2024. The Legislature passed the bill (L.D. 2030) into law, amending NRPA to allow for faster rebuilding of more resilient piers, wharves, and docks; to reduce permitting requirements for property owners seeking to elevate their building foundations; and to exempt emergency flood alleviation activities from NRPA permitting in the future when necessary for public safety.

The DEP recently enacted improvements to permitting processes and proposed additional changes to reduce review time for applications, better address individual and cumulative impacts, encourage nature-based solutions, and update rules for consistency with other measures and best practices:

- Created the Maine Enterprise Licensing System (MELS) to increase the transparency of the permitting process, improve the ease of permit-by-rule with online submissions, and allow the public to view all pending applications.
- Developed a Willing & Qualified Vendor Agreement that allows the DEP to utilize private-sector vendors to review license applications and reduce any backlog during surges in applications through outsourced support when staff capacity is limited.
- Expanding options for the use of Permit-by-Rule (PBR) including proposing to make coastal shoreline stabilization projects eligible under the Department's Chapter 305 NRPA PBR rules.
- Clarifying standards for resource protection through proposed updates to the Department's Chapter 310 Wetlands and Waterbodies Protection rules.
- Incorporated the best available science on the location of coastal sand dune systems into the Department's Chapter 355 Coastal Sand Dune Rules.

The following proposed changes to Chapter 305: Natural Resources Protection Act — Permit by Rule Standards and Chapter 310: Wetlands and Waterbodies Protection include standards related to coastal shoreline stabilization intended to increase resilience and protect essential ecosystems:

- Allow some projects using riprap or biodegradable stabilization materials to be eligible for PBR. (Ch. 305)
- Reduce restrictions on biodegradable materials for coastal sand dune restoration. (Ch. 305)
- Increase seawall heights up to base flood elevation under PBR (except in coastal sand dune systems). (Ch.305)
- Add beach scraping as a PBR-eligible activity. (Ch. 305)
- Set standards and limits on structural stabilization projects that require an individual permit, to increase predictability for applicants and to ensure impacts are reasonable. (Ch. 310)
- Limit use of riprap and hard armoring when not protecting structures or infrastructure. (Ch. 310)

Maine DEP has convened a Steering Committee and Technical Committee to work together to develop a consensus-based framework for improving the State's stormwater regulations, specifically Chapter 500, considering the State's environmental protection and climate adaptation goals. Newly proposed rules will likely require additional stormwater treatment in newly identified sensitive and threatened watersheds, tailor treatment to the stressors in the watershed, and require less treatment for low-impact development in watersheds that do not face significant development pressure.



8. Develop tools and education to make buildings more resilient.

Building codes are regulations used to establish minimum safety requirements for the construction of new buildings and retrofits to existing buildings. The Maine Uniform Building and Energy Code (MUBEC) applies to all towns in the state. MUBEC is comprised of several sets of international codes, including the International Building Code (IBC) and the International Residential Code (IRC), that are in use in all 50 states. The IBC and IRC are updated every three years. Maine has adopted the 2021 international codes and as of April 7, 2025, municipalities must comply with the codes and corresponding standards (although only communities with populations greater than 4,000 are required to enforce the codes). MUBEC staff are scheduled to join the new Maine Office of Community Affairs in 2025, leveraging opportunities to provide assistance and training to towns in coordination with other land use and resilience programs.

There are numerous examples around the country of homes or communities that were designed and built to the latest building codes that not only survived a significant natural disaster but were able to continue their intended function, helping the occupants or community quickly recover and remain resilient. A 2019 study by the National Institute of Building Sciences found that communities save \$11 for every \$1 invested in adopting the latest building codes. These cost savings come from lower property damage, reduced insurance premiums, and fewer emergency response incidents. Stronger building codes will also help reduce insurance premiums for residents.

The state will continue to look for opportunities to promote and incentivize “beyond-code” interventions that enhance a structure’s overall resilience to wind and flood damage from storms, floods, and other severe weather events. The new Maine Home Resilience Grant program created by LD 1 incentivizes homeowners to upgrade their roof to the FORTIFIED Homes standard developed by the Insurance Institute



Avesta's Bayside Anchor Apartments in Portland were built to meet the PHIUS+ Passive House standard, which significantly reduces energy use and lowers heating costs for residents. Credit: Avesta Housing

for Business & Home Safety (IBHS). The American Society of Civil Engineers' newest building standards for structures located in floodplains, ASCE 24-24, is an opportunity to proactively update municipal floodplain ordinances beyond the minimum requirements of the National Flood Insurance Program.

A barrier to advancing resilient codes across the state is ensuring there is adequate staff, training, and communication materials to enforce building codes and code updates. Some towns in Maine do not have a code officer or licensed building inspector, while other towns

share inspectors. Code enforcement is often combined with administrative tasks, inspections, plan review, and training to keep up with evolving construction technologies and updated standards. MEMA, MUBEC, and the Kennebec Valley Council of Governments partnered to propose a pilot program for regional code enforcement that would expand enforcement services across several counties. The state should continue to seek opportunities to fund this proposal and other opportunities for regional collaboration, capacity building, and continuing education.

Strategy Implementation Table II. 8

Activity	Timeframe	Lead (and partners)	Status	Resources
Review state building codes for opportunities to increase resilience and protect structures from storm and flood damage.	0-2 years	MOCA Building Codes program		
Develop model ordinances, resilient building codes, and higher standards and assist municipal adoption to help communities reduce risks from flooding and other natural hazards. For example, consider the benefits and costs of incorporating relevant sections of the ASCE 24-24 Flood Resistant Design and Standards in the state's model floodplain ordinance.	3-5 years	MOCA Building Codes and Floodplain programs (with other agencies)		
Implement regional code enforcement programs with awareness of how codes and enforcement needs vary by region.	3-5 years	MOCA Building Codes program (with MEMA)		
<p>Assist local permitters, inspectors, and code enforcement officers to be knowledgeable resources for property owners to access information and assistance, not only enforcement.</p> <ul style="list-style-type: none"> Grow continuing education offerings at community colleges and mentoring opportunities that support new code enforcement officers. Broaden training opportunities for code enforcement officers with emphasis on resilience-related resources for property owners and intersections with permitting. 	3-5 years	MOCA Building Codes program (with community colleges)		

III. Sustain Maine's Momentum through Strategic Investments

9. Improve data and information sharing to help leaders make informed decisions about risk.

Reliable and accessible data is the foundation of risk management decisions. However, important data may be fragmented and siloed at various agencies and institutions across the state, lacking integration and analysis that could enable better decision making. Furthermore, under-resourced communities frequently lack the technical capacity to analyze existing data in ways that could advance their resilience goals.

The Flood Ready Maine initiative established by LD 1 at the State Resilience Office will make flood data more accessible through an online risk data hub. The hub will gather, curate, store, analyze, and make critical datasets available to communities and users across the state. The initiative will assess community information needs and barriers, then develop easy-to-understand maps, visualizations, decision-support tools, and communication aids. The Flood Ready Maine initiative and the state's NOAA grant include funding for the development of inland hydrologic models and the modernization of outdated community flood maps. LD 1 also includes funding for the development of an online flood risk communication platform similar to Texas's BuyersAware.org website that enables property

owners and prospective buyers to look up the flood risk of their property. This platform will be a critical source of information for compliance with Maine's 2024 Real Estate Flood Risk Disclosure law (LD 2035).

In the long-term, Maine should establish a robust Center for Disaster Risk Analysis with a mission to deliver high quality disaster risk information to diverse users and decision makers. The center could be established in partnership with universities in Maine, with staff to coordinate information gathering, analysis, and communication as well as research and education. The center would collaborate with state agencies on activities such as supporting community-based programs to improve flood monitoring and prediction, informing early warning systems, documenting and retaining information about disasters for future analysis, and assisting the development of a skilled workforce for research, floodplain management, and resilience planning. Public engagement by the center should help residents and community leaders understand strategies for preparedness, mitigation, and resilience. Similar centers in other states include the Iowa Flood Center at the University of Iowa and the Institute for a Disaster Resilient Texas at Texas A&M University.

Flood Risk Disclosure Law

In April 2024, the Maine Legislature passed a flood disclosure law requiring real estate sellers to provide buyers with flood risk information. Sellers must disclose if a property is in a FEMA-designated flood hazard area, any past flood events, active flood insurance costs, and prior flood-related claims or disaster aid. This law enhances transparency, ensuring buyers understand potential risks before purchasing. Many buyers overlook flood risk, so this measure helps them make more informed decisions and know when to take proactive steps to avoid future losses.



State Spotlight: Iowa

The Iowa Flood Center is the nation's only academic research center devoted solely to flooding. The Center develops tools and reliable information to help community leaders, homeowners, and businesses make better flood-related decisions. The Center's work is accessible to everyone through the online Iowa Flood Information System, which communicates real-time information about stream levels, flood alerts and forecasts, and hydrologic conditions for the entire state.



Strategy Implementation Table III. 9

Activity	Timeframe	Lead (and partners)	Status	Resources
Launch an Online Risk Data Hub that centralizes existing information and maps on natural hazards and climate risks, enabling communities and other users to assess vulnerability.	0-2 years	MOCA State Resilience Office (with MEMA, GEO, and other agencies)		LD 1 provides funding and staffing
Develop accessible products and tools for communities based on coastal and inland flood risk models.	0-2 years	MOCA State Resilience Office (with DOT, DACF, MEMA)		Existing NOAA CRRC grant
Analyze flood insurance data to develop a more accurate assessment of flood risk.	0-2 years	MOCA State Resilience Office		LD 1 provides funding
Establish a statewide communication and public information program (similar to Texas' BuyersAware website) that informs local decision makers and residents about the risk from flooding and other hazards, providing guidance on how they can mitigate potential adverse impacts.	0-2 years	MOCA State Resilience Office		LD 1 provides funding
Increase the number of river and tide gauges to improve real-time access to water level monitoring and predictions.	6-10 years	DACF Maine Geologic Survey		
Establish a Center for Disaster Risk Analysis in partnership with universities and philanthropy that will identify critical data gaps, develop new analytical capabilities, and train a workforce skilled in risk communication and management.	6-10 years	Universities and philanthropy community		

10. Maximize federal funding for disaster recovery and proactive resilience projects.

Uncertainty about the future of federal funding programs and policies has grown since the Commission’s interim report was published. The state will continue to monitor the status of federal programs and pursue available funding opportunities that align with state priorities. Maine currently has active resilience-related grants from NOAA’s Climate Regional Resilience Challenge, the Department of Energy’s Grid Resilience and Innovation Partnership Program, FEMA’s Hazard Mitigation Assistance grant programs, and other federal programs.

As described above, the state’s NOAA grant expands capacity through the Regional Resilience Collaborative to help communities develop infrastructure resilience projects. These regional coordinators are helping communities identify and develop project scopes, and find

and apply for state, federal, and philanthropic funds to implement the projects. Following disasters, communities need additional capacity to manage the tasks and coordination required to access federal reimbursement for infrastructure repairs. Towns, regional councils, and the state should plan ahead for this capacity need in preparation for future disasters.

LD 1 establishes the state’s non-federal cost share needed for MEMA to apply for FEMA’s Safeguarding Tomorrow Revolving Loan Fund program. These state and federal funds will capitalize a state revolving fund that makes low interest loans to municipal, county, and tribal governments for hazard mitigation and infrastructure resilience projects. With additional capitalization and loan repayments, the fund becomes a self-sustaining source of financing for expensive community infrastructure improvements.

Strategy Implementation Table III. 10

Activity	Timeframe	Lead (and partners)	Status	Resources
Assist communities through the regional councils to navigate complex federal grant programs.	0-2 years	MOCA Community Resilience Partnership	Regional Resilience Collaborative	Existing NOAA CRRC grant
Develop and launch the Safeguarding Tomorrow Revolving Loan Fund to support hazard mitigation and infrastructure resilience projects.	0-2 years	MEMA		LD 1 provides non-federal match and staffing
Adopt an enhanced State Hazard Mitigation Plan to qualify for additional federal resilience funding.	3-5 years	MEMA (with other agencies)		
Develop and implement a funding plan that maintains state, regional, and local capacity built with funds from Maine’s NOAA CRRC grant and transitions successful grant-funded activities to other funding sources.	3-5 years	MOCA State Resilience Office (with Governor’s Office and agencies)		

11. Develop long-term funding and financing strategies for infrastructure resilience.

Maine must begin with urgency to become more self-reliant in generating the financial resources required for hazard mitigation, disaster recovery, and resilience. Increasingly costly storms and aging infrastructure create a pressing need to develop long-term funding and financing strategies that sustain momentum and allow Maine to address complex and expensive infrastructure vulnerabilities. Drinking water, wastewater, and stormwater infrastructure, along with transportation, energy, communications, and broadband are some of the most expensive systems to upgrade or relocate for resilience and will benefit from robust funding and financing strategies.

Both the state and communities must begin to think seriously about the benefits and tradeoffs of generating new revenues, reserving funds for future needs, borrowing for current needs, and insuring assets against future losses. State and local governments will need to consider two complementary aspects of financing resilience: a banking function that connects capital with resilience projects, and an insurance function that provides property owners, including state and local government entities, with a pathway to recovery when there is a loss.

The state will conduct a comprehensive assessment of funding options for planning and project

State Spotlight: Rhode Island

The Rhode Island Infrastructure Bank is Rhode Island's central hub for financing infrastructure improvements, including climate resilience, for municipalities, businesses, and homeowners. The Infrastructure Bank leverages limited capital in a revolving fund to offer financing for an array of infrastructure-based projects including water and wastewater, roads and bridges, and energy efficiency and renewable energy.



implementation that leads to the development of a sustainable, long-term resilience financing strategy. The assessment will identify opportunities to 1) optimize existing state funding and programs, especially in ways that leverage larger federal funds where possible; 2) suggest items that require a state budget strategy; and 3) propose new funding sources beyond the state budget. The process will include a study to explore policy, regulatory, and legislative options for execution of the strategy, including the potential for a centralized financing entity such as a resilience bank and the feasibility of an insurance mechanism for public infrastructure.

State Spotlight: Vermont

The State of Vermont's Emergency Relief and Assistance Fund covers up to 17.5 percent of FEMA's non-federal cost share requirement for communities that adopt certain resilience policies and just 7.5 percent for communities that choose not to participate. At a special resilience meeting of the Maine Climate Council in January, Julie Moore, Secretary of the Vermont Agency of Natural Resources, explained, "In terms of Vermont's key tools and approaches, a big piece has been aligning state programs, funding, and incentives. This includes the Emergency Relief and Assistance Fund program that increases cost shares for municipalities who are taking the necessary steps to improve their infrastructure."



Strategy Implementation Table III. 11

Activity	Timeframe	Lead (and partners)	Status	Resources
Assess the state's funding need for infrastructure resilience projects over the next 10 years and its ability to borrow or raise revenues for those projects.	0-2 years	GOPIF and State Resilience Office		Existing NOAA CRRC grant
Convene a work group to develop a plan for sustained, long-term funding sources and the banking and lending mechanisms (e.g., bonds, revenues, a resilience bank) for improving the resilience of Maine's infrastructure.	0-2 years	GOPIF and State Resilience Office		Existing NOAA CRRC grant
Strengthen MEMA's Disaster Recovery Fund (DRF): Raise or eliminate the Fund's statutory balance limit. Provide a reliable, long-term funding allocation. Revise the Fund's chapter rule to prioritize provision of the non-federal cost share to FEMA disaster programs resulting from a Presidentially Declared Disaster or Emergency and to prioritize building back with greater resilience after disasters. Restructure the Fund's non-federal cost share formula to incentivize municipal adoption of resilience practices and higher standards.	3-5 years	MEMA (with GOPIF and MOCA)		Would require legislative action
Convene a work group to evaluate the feasibility of various insurance models for public infrastructure and private working waterfront properties.	3-5 years	GOPIF and State Resilience Office		Existing NOAA CRRC grant
Expand loan and incentive programs to help businesses that support infrastructure projects (such as construction firms and engineering firms) to invest in equipment and systems for resilience-related projects.	6-10 years	DECD		Requires budget/ legislative action



THE COMMISSION'S PROCESS

Overview of the Commission's Work

The Commission is co-chaired by Dan Tishman and Linda Nelson, and consists of 24 individuals, including state and local officials; representatives of affected communities, businesses, and industries; and experts in infrastructure, construction, engineering, electrical utilities, floodplain management, financing, philanthropy, emergency response, and climate science. Staff from the Governor's Office of Policy Innovation and the Future and Maine Emergency Management Agency provide policy and technical support, while a consulting team provides analytical services, strategy research, and expertise in disaster resilience practices.

The Commission held public listening sessions and site visits in Stonington, Old Orchard Beach, Saco, Rumford, Mexico, Jay, Rockland, Machias, and Caribou. The listening sessions allowed the Commission members to learn directly from town leaders, municipal and county emergency managers, and impacted residents and businesses. The Commission's official meetings, held both virtually and in person between May 2024 and May 2025, engaged experts from other states, including Vermont, Texas, and Colorado, and leveraged the expertise of each Commission member.

In November 2024, the Commission published an interim report that captured priority topics and draft recommendations from its first 6 months of work. The co-chairs released the interim report in Hallowell, where floodwaters from the Kennebec River inundated the downtown during the December 2023 storm. The report identified rebuilding and preparedness priorities for Maine in the immediate and near term and outlined additional considerations for long-term resilience.

Following the release of the interim report, the Commission convened for further discussion and deliberation between December 2024 and April 2025. During this time, Commission members identified areas that required further attention, leading to the creation of four small groups, each of which met at least twice for deeper exploration of certain topics. These small groups provided the rest of the Commission with suggestions, and members continued to build on and refine the draft recommendations and resolve any gaps across the plan. After deepening their analysis, the Commission developed its final report.

Community Listening Sessions

The Resilience Commission held listening sessions throughout Maine to hear about storm impacts and recovery efforts from local leaders, emergency responders, and municipal staff. Visits included Stonington in Hancock County; Old Orchard Beach and Saco in York County; Rumford and Mexico in Oxford County; Jay in Franklin County; Rockland in Knox County; Machias in Washington County; and Caribou in Aroostook County.

During visits to Maine's coastal counties, Commission members toured areas impacted heavily during the January 2024 storms. These storms impacted much of Maine's diverse coastline, ranging from severe sand dune erosion in southern Maine's low-lying coastal areas to flooding and wave damage in Midcoast and Downeast Maine's rocky harbors and shorefronts. During visits to Maine's inland counties, Commission members toured areas heavily impacted by the June 2023 and December 2023 storms. Community leaders in Franklin, Oxford, and Aroostook counties spoke of heavy rain and fast-rising water levels that stranded people, washed out roads, closed businesses, and damaged homes and neighborhoods.

Each listening session and site visit provided Commission members with local examples of the challenges communities face as they recover from storm damage and prepare for future storms.

Stonington Listening Session

Stonington, located in Hancock County, is one of the most productive working waterfronts in Maine. Stonington and neighboring Deer Isle experienced significant impacts from the January 2024 storms, including extreme flooding that closed and damaged many public roads and storm surge that severely damaged public and private working waterfront infrastructure.

The Deer Isle Causeway, the sole access to Deer Isle and Stonington, was overtopped and impassable during much of the storms' duration. The Commission's site visit to Stonington included the Governor's signing of the Executive Order to Establish the Commission on Infrastructure Rebuilding and Resilience, a tour of storm impacts and rebuilding efforts, and a listening session with local leaders.



George O'Keefe, Rumford Town Manager, addresses the Commission during their visit to tour storm related impacts there in 2024.

Old Orchard Beach and Saco Listening Session

In York County, the increasing frequency and severity of coastal storm events represent a major threat to the region's visitors, jobs, and wages. The back-to-back January 2024 storms brought hazards including snow, rain, wind, flooding, storm surge, and power outages to York County. In the aftermath of the January storms, county officials mobilized to address the impacts of these storms but faced significant bureaucratic, financial, and logistical challenges.

The Commission visited Camp Ellis in Saco, a residential beach community at the mouth of the Saco River. A mile-long jetty constructed by the Army Corps of Engineers in the 1870s was intended to keep the river mouth navigable by preventing sedimentation. Instead, the jetty deprives the adjacent beach of its source of sand and concentrates wave energy on the beach dune during storms. The beach is now almost entirely eroded, leaving little natural defense for the community and infrastructure at Camp Ellis.

Rumford, Mexico, and Jay Listening Session

The Commission visited Rumford, Mexico, and Jay to meet with local leaders and view areas impacted by multiple flooding events in 2023. The towns of Rumford and Mexico are located along the Androscoggin River in Oxford County. Like numerous towns in western Maine, Rumford and Mexico experienced severe flooding impacts during the December 2023 storm that dropped approximately 7 inches of rain on the region and caused the Androscoggin River and adjacent tributaries to overtop roads, flood houses, wash out culverts, and cause extensive damage. The town of Jay is located along the Androscoggin River in Franklin County and experienced washouts during repeated storms in May, June, and December of 2023.

Rockland Site Tour

The Commission visited Rockland for a tour of waterfront infrastructure that sustained damage during the January storms. Rockland's multi-use piers and related facilities serve commercial and recreational vessels, are

home to various marine businesses, and enable transportation and emergency services for island communities. Adjacent landside parks host three major festivals each year that bring thousands of visitors to the region. The city has undertaken extensive resiliency planning in recent years to guide improvements to waterfront facilities, park spaces, and adjacent infrastructure. The plans include "flexible resilience" that prepares for sea levels 2.7 feet higher than today and allows for additional adaptive measures in the future without requiring a full rebuild of the facilities. The city has secured state and federal funding for some phases of construction and is in need of additional funding to fully implement the plans.



Machias Listening Session

The Commission visited Machias to meet with local leaders, view areas impacted by flooding, and learn about climate resiliency measures the town is pursuing. Machias is the county seat of Washington County and serves as a key service center for the region. Machias has a highly vulnerable downtown waterfront with a complex environment of natural and manmade features. Three major freshwater rivers enter Machias Bay — the Machias River, the Middle River, and the East Machias River — and the Bay's natural tidal funneling effect causes high vertical tidal range. In addition, the bowl-shaped geography of downtown Machias causes high stormwater flow into the area during precipitation events, stressing the town's aging stormwater infrastructure and further exacerbating tidal and freshwater flooding.

U.S. Highway Route 1, which cuts through downtown Machias and serves as a major road artery in the region, passes over the Machias Dike. The Machias Dike and causeway is an embankment structure with multiple box culverts, timber and stone masonry, earthen fill, and tidal flap gates. The dike crosses the Middle River where the river joins the tidal portion of the Machias River. The dike is severely deteriorated from a transportation infrastructure standpoint and restricts tidal flow and fish passage to the upstream tidal marsh of the Middle River. During storm events, including the January 2024 storms, prevailing winds out of the south and southeast push water and waves directly at the dike. Storm surge causes water to flow over the dike leading to further deterioration and flooding of the adjacent downtown areas. The storms also damaged the Down East Sunrise Trail, a popular multi-use corridor connecting eastern Maine that passes through Machias and serves as an economic engine for the town.

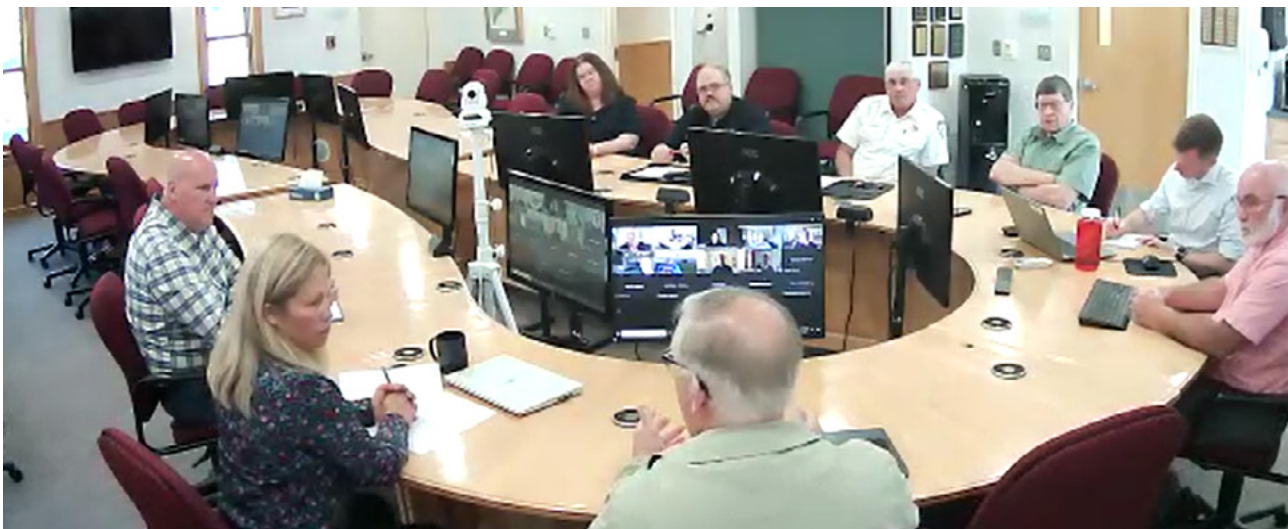
Aroostook County Listening Session

The Commission conducted a hybrid virtual and in-person listening session in Caribou in Aroostook County. Regional leaders and emergency managers and local officials from Caribou, Frenchville, Limestone, Presque Isle, and Van Buren shared experiences from storm events experienced in the last few years, updates on resilience planning, and details on regional needs. Aroostook

County flood maps are out of date, making it challenging to assist communities in resilience planning for floods. Local leaders noted several challenges specific to Aroostook County's northern location. For example, fuel is typically delivered to the county from southern Maine, exposing a risk that poor weather and storm events may cause delays in fuel reaching northern towns. The electrical system in the region is antiquated, and mitigating potential long-term power outages is a resilience focus area for the county. Managing an extended outage includes addressing access to resources such as food and fuel, as well as systems such as communications, work, and banking.

Hallowell Press Event

The Commission held a press event in Hallowell to release its interim report and recommendations. At the event, the owners of a Water Street property shared their story of recovering from the December 2023 flood, which included replacing all floor joists on the first floor for the affected businesses, mold remediation, foundation strapping, re-insulation, electrical work, basement flood vent installation, sump pumps, and sloped drainage to allow for easier water recession. The owners were aided by a Business Recovery and Resilience Fund award from the Department of Economic and Community Development.



On September 6, 2024, Commission members visited Caribou to meet with regional and local leaders and emergency managers, and discuss storm events the region had experienced in the last few years as well as resilience planning needs across Aroostook County.



Local business owner Rich Friscia, above, leads local leaders on a tour of his historic Hallowell building on Water Street, which was lifted from its foundation by flood waters in the December 2024 storm. The building has now been repaired with funding through a state business resiliency grant to help it withstand future storms.

Commission Meetings

Between July 2024 and May 2025, the Commission convened regularly to hear perspectives from local leaders and state experts on Maine’s current approach to response, recovery, and rebuilding from extreme storms, and considerations of how to improve the state’s approach moving forward. The Commission also heard from other states — including Texas, Vermont, and Colorado — about lessons learned from flood and disaster responses and subsequent infrastructure resiliency policies and projects. During October and November 2024, the Commission reviewed and refined recommendations and determined priority areas.

Expert presentations and key discussions included the following:

- **2023-2024 Storms and Climate Connections, Sea-Level Rise:** A presentation from the Maine Geological Survey and University of Maine highlighted recent climactic trends in Maine. Maine’s climate is getting warmer and wetter with more extremes and variability. The rate of sea level rise has been increasing from 0.8 inches per decade on a long-term scale, to about 2.0 inches per decade since 2002. Mean sea levels set numerous records in 2023 and 2024. The storms on January 10 and January 13, 2024, set records along Maine’s coastline due to coinciding storm surge, tide level fluctuations, and sea-level rise.
- **Storm Preparation, Response, and Delivery:** The Maine Emergency Management Agency (MEMA) provided information on the agency’s role in coordinating support across all phases of emergency management from mitigation and preparedness to response and recovery.
- **Lessons learned from the Rebuild Texas Commission:** Dr. Sam Brody, Director of the Institute for a Disaster Resilient Texas at Texas A&M University, provided a summary of the Texas “Eye of the Storm” report developed following Hurricane Harvey. The report provided a flood mitigation framework organized in four components: Avoid, Accommodate, Resist, and Communicate.
- **Lessons from Vermont: Policy actions taken after Tropical Storm Irene:** Vermont experienced major flooding in 2011 and again in 2023 and 2024. Julie Moore, Vermont’s Secretary of Natural Resources, shared key tools and approaches Vermont has implemented to increase the state’s flood resilience, including establishing a Municipal Technical Assistance Program, an Emergency Relief Assistance Fund, and a Flood Resilient Communities Fund. Based on lessons from Vermont, Commission members discussed emerging recommendations, such as exploring state codes and standards, bolstering the state’s municipal technical assistance programs, leveraging regionalism and partnerships as vehicles to scale solutions, reducing barriers to funding opportunities, and statewide insurance mechanisms. The Commission discussed the need to better understand changes in risk; ways of evaluating costs and risks when making decisions; and available information, modeling, and digital tools related to flood risk (for example, climate-informed floodplain modeling).
- **Working Waterfront Overview & Perspectives on Working Waterfront Resilience:** The Department of Marine Resources provided an overview of the status of working waterfront infrastructure in Maine and existing programs in the state that support and protect working waterfronts. Much of Maine’s working waterfront infrastructure experienced severe storm damage in the January 2024 storms. In addition, working waterfront infrastructure faces pressure from competing uses, redevelopment, and disrepair. A panel of working waterfront stakeholders shared perspectives on the challenges facing the waterfront construction and engineering industry, and barriers faced by municipalities to address working waterfront resiliency in their communities.
- **Managing the Unavoidable: Capacity and Planning, Permitting, and Paying for Resilient Infrastructure:** The Maine Climate Council’s Community Resilience Working Group provided

a summary of their recommendations to assist communities in understanding their exposure to climate threats and taking proactive steps to become more resilient. MEMA provided an overview of capacity challenges within their agency, detailing the limited capacity among staff to take on additional resiliency planning responsibilities (exacerbated by multiple federal disaster recovery processes). The Department of Environmental Protection (DEP) provided an overview of permitting processes, proposed legislation, and the need for customer support capacity to field calls, complete site visits, and advise permit seekers. The Maine Bureau of Insurance provided an overview of flood insurance programs and the relatively low participation in Maine and offered considerations for improvement.

- **State of Maine Energy Landscape & Electric Utility Resilience:** The Maine Governor's Energy Office gave an overview of the energy challenges in Maine and several potential recommendations for consideration, including expanding baseline assessments of outages and grid vulnerabilities, adopting clean-energy technologies, exploring innovative solutions, engaging regionally to advance cost-effective reliability systems, and planning for challenges in volatile fuels that impact home heating. The Maine Public Utilities Commission gave an overview of grid planning, climate resilience planning, and addressing storm damage costs. The Commission also heard from Maine's two investor-owned electric utilities, Central Maine Power and Versant Power, about storm impacts, recovery, and long-term resiliency efforts.
- **Lessons from Colorado: Colorado Grid Resilience Strategy & Funding:** The Commission heard from the Colorado Energy Office and Colorado Resilience Office about Colorado's approaches to grid resilience, microgrid grant program, and cooperation with utilities and communities.
- **Water-Related Systems and Infrastructure:** The Commission heard from state officials about Maine's drinking water, wastewater, and stormwater infrastructure to inform their understanding of resilience upgrade needs.

Between December 2024 and April 2025, Commission meetings shifted to condensing learnings, identifying gaps, and building a structure and framework for a final report and infrastructure plan. The following months included small group discussions with the opportunity to have more in-depth and thematic conversations. Expert presentations and key discussions of new material included:

- **Flood Risk Data Status and Analyses, Part 1:** Dr. Sam Brody and Dr. Wesley Highfield presented a survey of the flood data landscape in Maine. Current data on natural features, structures, and social vulnerability is robust but there are issues with the age and resolution of information, such as the floodplain maps which need to be updated for accurate planning and risk communication.
- **Flood Risk Data, Part 2:** Dr. Wesley Highfield provided an update on an analysis of flood risk using the National Flood Insurance Program's repetitive loss and insurance penetration data, and exposure across commercial, industrial, public and residential buildings.
- **National Review Panel Feedback:** Basilia Yao and Dr. Sam Brody reported on feedback about the November interim report gathered from interviews with national experts on disasters, flood mitigation, and resilience including plan implementation advice.



Small Group Discussions

To efficiently address the complex challenges related to Maine’s infrastructure resilience, between February and March 2025 the Commission met in several small group convenings to examine the needs of specific topics. These groups were tasked with exploring the details of Maine’s current challenges and providing suggestions with innovative ideas and solutions to the full Commission. Small group topics included:

- **Vulnerable Infrastructure Prioritization and Working Waterfront Stakeholder Group:** Across multiple categories of infrastructure, facilities and systems need to become more resilient to climate impacts. The group discussed sequencing and prioritization approaches for investment of limited resources. To prioritize what seems like an insurmountable amount of need, the group identified three key criteria: protecting life and public safety, preserving public health, and preventing economic damage. Proactive risk mitigation was recognized as a more cost-effective path than post-disaster rebuilding, and economic analysis tools will be needed to help adequately upgrade infrastructure without paying for more than is needed. Beyond designing and installing infrastructure, planning and engagement with communities early in decision making should be part of problem-solving. A working waterfront stakeholder group held parallel conversations and discussed a systematic inventory and regional approach to protecting Maine’s working waterfront infrastructure.
- **Workforce, Business Development, and Municipal Capacity:** Maine will need specialized expertise throughout the public and private sectors that can plan, design, implement, and evaluate resilience and rebuilding efforts. Investments in existing initiatives with a proven record of success must be complemented by imaginative new strategies and partnerships to ensure a healthy supply of well-trained workers (including municipal and regional workers) and businesses that can tackle these challenges. Expanding workforce pathways through training programs, funding resilience-related fields, and faculty positions in high-need disciplines, would strengthen the base of skilled workers. Supporting municipal capacity through increased funding for emergency management professionals, structured guidance for local governments, and a public communications strategy on resilience all enhance locally led resilience measures. Enhancing business engagement and stability would further ensure resilience projects are structured to provide a steady stream of work for businesses, and exploring targeted loan or



In July 2024, the Commission met with local leaders from the Towns of Rumford, Mexico, and Jay, and emergency managers from Oxford County Emergency Management Agency to discuss impacts from storms over the past two years and subsequent recovery and rebuilding efforts. Community leaders highlighted the need for administrative support for documenting damages during the FEMA insurance reimbursement process, as well as planning and engineering technical assistance for rebuilding with resilience.

incentive programs could help businesses invest in equipment and infrastructure for resilience related projects.

- **Permitting & Building Codes:** The challenge of rebuilding infrastructure after a storm and preparing infrastructure to be more resilient for future storms encompasses increasingly complex and technical projects that require engineering expertise and time-sensitive decisions. Addressing regulatory obstacles at the federal, state, and local levels will all be necessary to help streamline the permitting process. The group discussed revising federal work windows for rebuilding and resilience by addressing inconsistencies that can hinder projects, while still ensuring environmental protections. Expanding permit-by-rule for certain activities that increase the resilience of a property or structure were identified as paths for long-term storm preparation and faster rebuilding. To bolster building code enforcement, the small group emphasized the value of mentorship, networking building, training, and other resources. When code officers have access to training and resources, they can support communities not just with enforcement but also be a source of expertise for safe and resilient building practices. For example, after severe storms when municipal staff capacity is stretched thin, code officers can often end up in recovery and planning roles.
- **Funding & Financing for Resilience Projects:** The State of Maine must become more active, capable, and self-resourced in anticipation of more frequent disasters. In conversations about the scale of resources needed to proactively and reactively pay for disaster damage, the group identified activities at the state and municipal level to advance financing. Steps such as evaluating borrowing capacity and potential revenue sources, strengthening the Disaster Recovery Fund (DRF) through long-term funding, assisting municipalities to establish resilience reserve accounts, incentivizing regional approaches to infrastructure investment, and exploring models for insuring public infrastructure and working waterfronts were all proposed for consideration.

Analysis and Research

The Commission secured the services of a consulting team consisting of Dr. Samuel Brody and Dr. Wes Highfield of Texas A&M University and Basilia Yao of Matter+Form Consulting. The team's members supported commissions in Texas following Hurricane Harvey and in New York City following Superstorm Sandy. Among several specialties and services, the team analyzed data related to flood risk and disaster recovery funding in Maine.

Analyses utilized OpenFEMA datasets to evaluate funding disbursed in the aftermath of disasters, with a focus on understanding the distribution of federal assistance. The datasets include FEMA Public Assistance, Individual Assistance, hazard mitigation grants, and National Flood Insurance Program claims. These analyses involve tracking the allocation of disaster relief funds across counties and over time.

From these analyses, the Commission gained a more nuanced picture of flood risk across the state. The consultant team:

- Conducted a data gap analysis, including an assessment of existing datasets, their applications, and appropriateness for inclusion in analyses that address flood risk and mitigation. The gap analysis includes data held by the state and existing open federal sources.
- Evaluated flood risks, storm surge threats, and vulnerabilities using a range of data and methodologies. Risk status is based on factors such as floodplain map ages, storm surge risk to both structures and populations, and LiDAR data to determine the readiness of high-resolution elevation models.
- Assessed the social vulnerability of communities using standardized measures, including Maine's social vulnerability data and health-based measures from the Behavioral Risk Factor Surveillance System (BRFSS). Additionally, risks from natural-technical hazards (NATECH) will be evaluated based on federal Toxic Release Inventory (TRI) and EPA Superfund locations.

- Evaluated flood risks that may exist outside of officially delineated floodplains, particularly focusing on high-water marks and areas with National Flood Insurance Program claims and policies in X-zones.
- Cataloged agricultural losses from past floods, with cross-references to recovery grants funded by the U.S. Department of Agriculture.
- Assessed the distribution of existing flood insurance policies, the status of structures in high-risk zones, and the state of pre-FIRM claims, second home claims, and repetitive loss/severe repetitive loss properties.
- Provided links to potential funding opportunities, particularly in relation to projects and needs identified in Maine's state hazard mitigation plan.
- Proposed conceptual methodologies for generating future mapping resources, including delineating hazard overlay districts and watershed planning districts that can be used to inform future growth and development while reducing flood risks.

The consultant team developed a series of issue briefs with recommendations drawn from successful examples across the country, tailored to needs and opportunities in Maine:

- Local Capacity Building for Storm Risk Reduction
- Maine Disaster Data Service
- Disaster-Related Funding and Technical Assistance
- Risk Communication and Awareness
- Resilience Overlay Districts
- Local Participation in the FEMA Community Rating System (CRS)
- Adoption of Disaster-Resilient Building Codes
- Statewide Watershed Planning Program for Flood Risk Reduction



An aerial view of storm damage to the waterfront in New Harbor in 2024. Credit: Island Institute

COMMISSION MEMBERS

A representative with expertise in hazard mitigation:

Sam Roy, Supervisory Physical Scientist, United States Geological Survey

A leader from Maine's philanthropic sector:

Deborah Ellwood, President, Maine Community Foundation

An expert in climate science and related storm events:

Peter Slovinsky, Marine Geologist, Maine Geological Survey

A representative with expertise in infrastructure finance and planning:

Charlie Colgan, Center for the Blue Economy, Middlebury Institute of International Studies at Monterey, and Professor Emeritus, University of Southern Maine.

A representative with expertise in insurance:

Robert Carey, Superintendent, Maine Bureau of Insurance

A representative of populations facing disproportionate impacts from storm events:

Noël Bonam, State Director, AARP Maine

A representative of an electrical utility:

Joseph Purington, President & CEO, Central Maine Power

Representatives from the construction industry:

Dan Tishman (Co-Chair), Principal and Chairman, Tishman Realty & Construction

Jack Parker, Chairman & CEO, Reed & Reed

A representative of the engineering industry:

Lissa Robinson, Senior Civil Engineer and Hydrogeologist, GEI Consultants

Representatives from impacted industries:

Curt Brown, Marine Biologist, Ready Seafood; Lobsterman; Co-Chair, Coastal and Marine Working Group, Maine Climate Council

Jim Murton, Owner, North Country Rivers; Registered Maine Guide

Two representatives from municipal government:

Shiloh LaFreniere, Town Manager, Town of Jay

Linda Nelson (Co-Chair), Director of Economic and Community Development, Town of Stonington

A representative from a regional council or county government:

Emily Rabbe, Lincoln County Regional Planning Commission

Members from state agencies

Bruce Van Note, Commissioner, Maine Department of Transportation

Patrick Keliher, Commissioner, Maine Department of Marine Resources (Through March 2025)

Carl Wilson, Commissioner, Maine Department of Marine Resources

Heather Johnson, Commissioner, Maine Department of Economic and Community Development

Amanda Beal, Commissioner, Department of Agriculture, Conservation and Forestry (designee: Judy East, Director, Bureau of Resource Information and Land Use Planning)

Melanie Loyzim, Commissioner, Maine Department of Environmental Protection

Dr. Puthiery Va, Director, Maine Center for Disease Control and Prevention

Peter Rogers, Director, Maine Emergency Management Agency

Hannah Pingree, Director, Governor's Office of Policy Innovation and the Future

Dan Burgess, Director, Governor's Energy Office



EXECUTIVE ORDER 8

An Order Establishing the Maine Infrastructure Rebuilding and Resilience Commission

FY 23/24

WHEREAS, Maine communities endured severe damage from record-breaking riverine flooding, coastal storm surge, and high winds during three extreme storm events striking in rapid succession between December 18, 2023 and January 13, 2024;

WHEREAS, communities suffered more than \$90 million in damage to public infrastructure as a result of these storms and millions of dollars more in damage to private property, businesses, and homes, demanding public investment to help restore a broad range of infrastructure that is critical to local communities and the state's economy;

WHEREAS, Maine has requested eight presidential disaster declarations for severe weather events in the past two years, far more than the preceding decade, challenging the state's emergency management systems and response capabilities;

WHEREAS, preexisting concerns such as increasing real estate valuations, the shortage of affordable housing, and diminishing working waterfront infrastructure combine to create policy and fiscal challenges for Maine's communities and economy;

WHEREAS, recovery and rebuilding resources will continue to be needed as extreme storms, inland and coastal flooding, and other natural hazards are projected to increase in frequency and severity as the climate warms;

WHEREAS, the Governor introduced, and the Legislature has now passed legislation to appropriate \$60 million to the Maine Infrastructure Adaptation Fund, Working Waterfront Resilience Grant Program, and Business Recovery and Resilience Fund for grants to communities, businesses, and other entities to repair, rebuild, and adapt infrastructure to support public safety, protect essential community and economic assets, and ensure long-term resilience to increasingly severe weather;

WHEREAS, Maine has an opportunity to learn lessons for improving response and disaster recovery and long-term resilience from the Maine Emergency Management Agency's Disaster Recovery Team and from other states affected by catastrophic flooding and coastal storms; and

WHEREAS, philanthropy, private capital, and local, state, and federal government entities can collaboratively support and reinforce long-term rebuilding and resilience strategies that leave communities with less risk and better prepared for the next disaster.

NOW THEREFORE, I, Janet T. Mills, Governor of the state of Maine, pursuant to authority conferred by Me. Const. Art. V, Pt. 1, §§ 1 & 12, do hereby Order the following:



I. Commission Established; Purpose

- A. The Maine Infrastructure Rebuilding and Resilience Commission (“Commission”) is hereby established;
- B. The purpose of the Commission is to advance and support the state’s approach to response, recovery, and rebuilding related to the disasters of the preceding eighteen months, and provide analysis, lessons and strategies from this recovery period, and make a report and recommendations to:
 - 1. Ensure that Maine is maximizing the use of all federal, state, municipal and private funding resources available for storm recovery and rebuilding and effectively deploying those funds alongside state resources;
 - 2. Monitor and describe the limitations of federal, state, and private sources of funding, including insurance markets, on recovery and long-term resilience, and recommend both short-term solutions to fill immediate gaps and long-term mechanisms to sustain resilience investments into the future;
 - 3. Explore and encourage public-private partnerships with private firms, engineering and consulting experts, as well as private investors and philanthropy, to support rebuilding efforts and long-term economic and community resilience in the face of storm recovery;
 - 4. Document lessons from recovery activities that can be applied to future response and recovery efforts, including recommendations for improving state and local systems for community engagement and communications, response, and recovery;
 - 5. Prepare a plan for Maine’s infrastructure that increases resilience and speeds rebuilding through strategies that improve state and local planning, permitting, infrastructure design and engineering, finance mechanisms, workforce capacity, and related needs while leveraging available funding sources and capabilities; and
 - 6. Build on recommendations from the Maine Climate Council and its working groups that are relevant to the work of this Commission, including those supporting working waterfronts, preparing for increasing coastal and riverine flooding, and informing policies intended to improve storm response and greater long-term resilience.



II. Membership and Chairs

The Commission shall consist of the following members:

1. The Commissioner of the Department of Transportation or their designee;
2. The Commissioner of the Department of Marine Resources or their designee;
3. The Commissioner of the Department of Economic and Community Development or their designee;
4. The Commissioner of the Maine Department of Environmental Protection or their designee;
5. The Commissioner of the Department of Agriculture, Conservation and Forestry or their designee;
6. The Director of the Maine Emergency Management Agency or their designee;
7. The Director of Governor's Office of Policy Innovation and the Future or their designee;
8. The Director of the Maine Center for Disease Control and Prevention or their designee;
9. The Director of the Governor's Energy Office or their designee;
10. A representative with expertise in hazard mitigation;
11. A leader from Maine's philanthropic sector;
12. An expert in climate science and related storm impacts;
13. A representative with expertise in infrastructure finance and planning;
14. A representative with expertise in insurance;
15. A representative of populations facing disproportionate impacts from storm events;
16. A representative of one of Maine's electrical utilities;
17. A representative with expertise in engineering;
18. Two representatives with expertise in construction and rebuilding;
19. Two representatives from impacted industries;
20. Two municipal leaders, one from an inland and one from a coastal community; and
21. A representative from a regional council or county government.



The Governor shall appoint two members to serve as Co-Chairs of the Commission.

III. Funding and Staffing

- A. The Governor's Office of Policy Innovation and the Future shall provide such staff as may be necessary to fulfill the Commission's charge and may seek staffing and financial support from other state agencies and private entities to accomplish the goals and work of the Commission;
- B. The Co-Chairs and the members of the Commission shall serve without compensation.

IV. Proceedings and Records

- A. The Co-Chairs will preside at, set the agenda for, and schedule Commission meetings. The Commission shall meet as often as it deems necessary to complete its work. To the extent practical, and to the extent that its fact-finding mission is not hindered, the Commission should conduct its work in a manner that is open and accessible to the public. Records, proceedings and deliberations of the Commission are not subject to the requirements of 1 M.R.S. c. 13, in accordance with sections 402(2)(F), (3)(J) and § 403(6) of that Chapter. The Commission may conduct its work through subcommittees.
- B. The Commission shall issue a public report of its findings to the Governor and Legislature. The Commission shall issue an interim report by November 15, 2024 and shall issue a final report no later than May 15, 2025.

A handwritten signature in black ink, appearing to read "Janet T. Mills".

Janet T. Mills
Governor

ACKNOWLEDGEMENTS

The Commission would like to thank the Maine Community Foundation and the North Light Foundation for their significant support of its work.

The Commission would also like to thank staff and consultants:

The staff of the Governor's Office of Policy Innovation and the Future, including

Brian Ambrette, Senior Climate Resilience Coordinator

Sarah Curran, Deputy Director, Climate Planning and Community Partnerships

Jackie Farwell, Deputy Director, Strategic Communications and Public Affairs

Maggie Kelly-Boyd, Natural Resources Climate Policy Advisor

Dan Matz, Policy and Data Analyst, Economy and Infrastructure

Jenna Isaacson Pfueller, Communications Manager

Hannah Silverfine, Climate Risk Management Project Coordinator

The staff of the Maine Emergency Management Agency, including

Anne Fuchs, Director of Mitigation & Recovery

And

Dr. Samuel Brody of Harpswell 10 Inc.

Dr. Wesley Highfield

Basilisa Yao of Matter + Form

Report Design: Cindy Butler, cindybutlerdesign.com

Proofreading: Kristina DeFrancesco, santaluciacommunications.com

APPENDIX: IMPLEMENTATION ACTIONS BY YEAR

Timeframe 0-2 years

Activity	Timeframe	Lead (and partners)	Status	Resources
<i>Identify, prioritize, and strengthen vulnerable infrastructure.</i>				
Assess the vulnerability of state-owned assets to climate change hazards and extreme weather. Develop vulnerability assessment protocols, resources, training, and assistance for communities to enable assessments at the community or regional levels.	0-2 years	All state agencies with GOPIF and State Resilience Office	In progress, assessment began in March 2025	Existing FEMA Hazard Mitigation Assistance grant
Develop a prioritization framework and metrics for investments within categories of vulnerable infrastructure using the following criteria: protection of life and public safety, preservation of public health, prevention of economic damages. Emphasize community input and leadership with support and guidance from the state.	0-2 years	GOPIF (with State Resilience Office and Governor's Infrastructure Implementation Committee)		Existing FEMA Hazard Mitigation Assistance grant
Develop a robust pipeline of local infrastructure resilience projects by providing planning, design, and engineering assistance to communities, thereby generating a steady stream of work for businesses.	0-2 years	MOCA Community Resilience Partnership		Existing NOAA CRRC grant
<i>Assist communities to effectively assess and reduce risk.</i>				
Expand tools and funding for communities and regions to assess vulnerabilities in infrastructure, including culverts and stormwater assets, drinking water and wastewater systems, transportation, communications, and other public and private facilities that are essential to local economies.	0-2 years	MOCA State Resilience Office and Community Resilience Partnership, with DACF, DOT MIAF, and other agencies	Community Resilience Partnership added technical assistance for vulnerability assessments in 2024.	Existing FEMA BRIC and NOAA CRRC grants; Community Resilience Partnership grants
Increase state and regional capacity to assist communities with flood and natural hazard risk reduction, prioritizing communities that are rural and vulnerable to natural disasters.	0-2 years	MOCA with the 10 regional councils	LD 1 creates Flood Ready Maine initiative and funds regional certified floodplain managers	LD 1 authorizes funding
Encourage philanthropies and nonprofit organizations to support capacity-building, pilots, and community engagement and education for resiliency.	0-2 years	Maine Community Foundation (with philanthropies and nonprofits)		

Activity	Timeframe	Lead (and partners)	Status	Resources
Develop a sustained public communications strategy to raise awareness, engagement, and support community dialogue about resilience efforts and long-term challenges.	0-2 years	MOCA State Resilience Office with other agencies		Existing NOAA CRRC grant
Establish a homeowners resilience program to provide grants to residents to strengthen their homes against damage and loss from severe weather.	0-2 years	DPFR Bureau of Insurance	LD 1 creates the Home Resiliency Program	LD 1 authorizes funding
Assist towns to take actions that reduce flood risk, protect property, increase participation in the National Flood Insurance Program, and lower flood insurance premiums.	0-2 years	MOCA State Resilience Office and Floodplain Management Program	LD 1 creates Flood Ready Maine initiative	LD 1 authorizes funding
<i>Improve and protect energy infrastructure and increase energy resilience for customers.</i>				
Facilitate the collection and publication of trend data on electricity outages and grid vulnerabilities.	0-2 years	GEO (with PUC, MEMA, and utilities)	Aligned with Maine Energy Plan Objective B, Strategy A	
Monitor energy reliability, volatility, and costs for electricity generation and delivery of fuels for home heating during extreme cold periods and winter storms. Continue to address through the advancement of the Maine Energy Plan and other efforts.	0-2 years	GEO (with regional industry partners)	Aligned with Maine Energy Plan, Objective B, Strategy A	
<i>Protect and promote resilience across a diverse mix of public and privately owned working waterfront infrastructure.</i>				
Identify and map the most vulnerable working waterfront infrastructure through a systematic, statewide approach, considering economically vital facilities, social vulnerability, and future growth opportunities. Ground truth vulnerability data with local knowledge from harbormasters and town staff.	0-2 years	DMR/MOCA Maine Coastal Program (with working waterfront stakeholders)		
Invest in resilience upgrades and ongoing maintenance of public working waterfront infrastructure to withstand sea level rise and extreme storms.	0-2 years	DMR and DOT		Existing NOAA CRRC grant and NOAA CDS funds
Strengthen privately owned working waterfront infrastructure by providing business resiliency planning support and engineering and permit assistance to design and complete resilience upgrades.	0-2 years	MOCA/DMR Maine Coastal Program (with DMR, DECD, DEP)		NOAA CDS funds

Activity	Timeframe	Lead (and partners)	Status	Resources
<i>Enhance communications during and immediately after emergencies.</i>				
Upgrade emergency communication systems, practices, and training for state, county, and municipal leaders to ensure dependable communication with residents during emergencies.	0-2 years	MEMA		LD 1 provides funding and staffing
Develop strategies to streamline and improve information sharing among state, county, and local emergency managers and officials.	0-2 years	MEMA		LD 1 provides funding and staffing
<i>Strengthen emergency coordination and rapid reaction capabilities across governments and with the philanthropic and nonprofit sector to alleviate immediate post-disaster needs.</i>				
Develop and coordinate opportunities for the philanthropic and nonprofit sector to help fill needs not being met by disaster relief programs.	0-2 years	MEMA (with the Maine Long Term Recovery Board and philanthropy community)		
<i>Expedite permitting for post-disaster rebuilding, infrastructure strengthening, and resilience projects.</i>				
Develop temporary contracts at state agencies to increase capacity for permit application review during periods of high demand.	0-2 years	DEP (with other permit-review agencies)	Feb 2025: DEP has 13 willing and qualified vendors to assist	
Develop a list of suggested regulatory exemptions with appropriate environmental safeguards for emergency activities during and immediately following a disaster.	0-2 years	DEP (with other agencies)	Expand on LD2030 (2024)	
Convene a regulatory reform forum to identify potential changes to Department regulations to facilitate climate resilience, informed by outreach to affected stakeholders, including the private sector.	0-2 years	DEP (with other agencies)		Existing NOAA CRRC grant
Engage federal agencies (such as the Army Corps of Engineers and NOAA Fisheries) about permitting improvements such as restrictive in-water work windows, duplicative state and federal permits, and lengthy agency review times.	0-2 years	DEP and GOPIF (with other agencies)		
Create educational materials to raise awareness of permitting requirements, explain eligibility for expedited state permitting through permit-by-rule, and provide guidance for emergency rebuilding work.	0-2 years	DEP (with MOCA)		Existing NOAA CRRC grant and new positions requested in budget

Activity	Timeframe	Lead (and partners)	Status	Resources
<i>Develop tools and education to make buildings more resilient.</i>				
Review state building codes for opportunities to increase resilience and protect structures from storm and flood damage.	0-2 years	MOCA Building Codes program		
<i>Improve data and information sharing to help leaders make informed decisions about risk.</i>				
Launch an Online Risk Data Hub that centralizes existing regional and community-level hazard, risk, and vulnerability information.	0-2 years	MOCA State Resilience Office (with MEMA, GEO, and other agencies)		LD 1 provides funding and staffing
Develop accessible products and tools for communities based on coastal and inland flood risk models.	0-2 years	MOCA State Resilience Office (with DOT, DACF, MEMA)		Existing NOAA CRRC grant
Analyze flood insurance data to develop a more accurate assessment of flood risk.	0-2 years	MOCA State Resilience Office		LD 1 provides funding
Establish a statewide communication and public information program (similar to Texas' BuyersAware website) that informs local decision makers and residents about the risk from flooding and other hazards, providing guidance on how they can mitigate potential adverse impacts.	0-2 years	MOCA State Resilience Office		LD 1 provides funding
<i>Maximize federal funding for disaster recovery and proactive resilience projects.</i>				
Assist communities through the regional councils to navigate complex federal grant programs.	0-2 years	MOCA Community Resilience Partnership	Regional Resilience Collaborative	Existing NOAA CRRC grant
Develop and launch the Safeguarding Tomorrow Revolving Loan Fund to support hazard mitigation and infrastructure resilience projects.	0-2 years	MEMA		LD 1 provides non-federal match and staffing.
<i>Develop long-term funding and financing strategies for infrastructure resilience.</i>				
Assess the state's funding need for infrastructure resilience projects over the next 10 years and its ability to borrow or raise revenues for those projects.	0-2 years	GOPIF and State Resilience Office		Existing NOAA CRRC grant
Convene a work group to develop a plan for sustained, long-term funding sources and the banking and lending mechanisms (e.g., bonds, revenues, a resilience bank) for improving the resilience of Maine's infrastructure.	0-2 years	GOPIF and State Resilience Office		Existing NOAA CRRC grant

Timeframe 3-5 years

Activity	Timeframe	Lead (and partners)	Status	Resources
<i>Identify, prioritize, and strengthen vulnerable infrastructure.</i>				
Expand existing workforce training programs, including apprenticeships and pre-apprenticeships, service corps, and UMS's internship initiatives, with a focus on resilience-related fields such as construction, engineering, and community planning.	3-5 years	Dept. of Labor (with University of Maine System, Maine Community College System, Career and Technical Education programs, and Construction Training Programs)		
<i>Assist communities to effectively assess and reduce risk.</i>				
Assist towns to establish resilience reserve accounts and capital investment plans.	3-5 years	MOCA Community Resilience Partnership		Community Resilience Partnership grants
Provide data and education for communities to establish "resiliency overlay districts" using the best available science and data to reduce risk in areas where additional protective measures are needed.	3-5 years	MOCA		
<i>Improve and protect energy infrastructure and increase energy resilience for customers.</i>				
Develop an initial critical facility map using available energy resilience-related information.	3-5 years	GEO (with PUC and utilities)		
Enable the adoption of clean energy powered microgrids that enhance storm resilience, especially for critical services and facilities that serve vulnerable populations.	3-5 years	GEO (with PUC and utilities)		
<i>Protect and promote resilience across a diverse mix of public and privately owned working waterfront infrastructure.</i>				
Create new policy options, funding, and technical assistance, such as an entity outside of state government with the capacity to protect critical private working waterfront properties at risk of conversion to non-marine uses.	3-5 years	MOCA/DMR Maine Coastal Program (with DMR, LMF and working waterfront stakeholders and the philanthropy community)		
<i>Enhance communications during and immediately after emergencies.</i>				
Develop and strengthen relationships with vulnerable communities to ensure that all Maine people can quickly access trusted sources of emergency communications and disaster response.	3-5 years	MOCA (with MEMA and the Office of New Americans)		

Activity	Timeframe	Lead (and partners)	Status	Resources
<i>Strengthen emergency coordination and rapid reaction capabilities across governments and with the philanthropic and nonprofit sector to alleviate immediate post-disaster needs.</i>				
Increase engagement and education among county and municipal officials, the philanthropic and nonprofit sector, and donors about the mechanisms for requesting and providing disaster relief assistance.	3-5 years	MEMA (with Volunteer Maine, Maine Community Foundation, and other donors)		
Increase funding for emergency management staffing at state, county, and local levels.	3-5 years	State, county, and local governments.		
Assist communities to formalize networks and contracts for disaster recovery services (e.g., debris management, construction contractors).	3-5 years	MEMA (with county emergency management agencies)		
<i>Expedite permitting for post-disaster rebuilding, infrastructure strengthening, and resilience projects.</i>				
Propose expanded uses of permit-by-rule and include additional resilience-related practices (e.g., making wharves and piers more resilient).	3-5 years	DEP		
<i>Develop tools and education to make buildings more resilient.</i>				
Develop model ordinances, resilient building codes, and higher standards and assist municipal adoption to help communities reduce risks from flooding and other natural hazards. For example, consider the benefits and costs of incorporating relevant sections of the ASCE 24-24 Flood Resistant Design and Standards in the state's model floodplain ordinance.	3-5 years	MOCA Building Codes and Floodplain programs (with other agencies)		
Implement additional regional code enforcement programs with awareness of how codes and enforcement needs vary by region.	3-5 years	MOCA Building Codes program (with MEMA)	Build on recent regional code enforcement pilot project	Existing and future FEMA BRIC grants
<p>Assist local permitters, inspectors, and code enforcement officers to be knowledgeable resources for property owners to access information and assistance, not only enforcement.</p> <ul style="list-style-type: none"> Grow continuing education offerings at community colleges and mentoring opportunities that support new code enforcement officers. Broaden training opportunities for code enforcement officers with emphasis on resilience-related resources for property owners and intersections with permitting. 	3-5 years	MOCA Building Codes program (with community colleges)		

Activity	Timeframe	Lead (and partners)	Status	Resources
<i>Maximize federal funding for disaster recovery and proactive resilience projects.</i>				
Adopt an enhanced State Hazard Mitigation Plan to qualify for additional federal resilience funding.	3-5 years	MEMA (with other agencies)		
Develop and implement a funding plan that maintains state, regional, and local capacity built with funds from Maine's NOAA CRRC grant and transitions successful grant-funded activities to other funding sources.	3-5 years	MOCA State Resilience Office (with Governor's Office and agencies)		
<i>Develop long-term funding and financing strategies for infrastructure resilience.</i>				
<p>Strengthen MEMA's Disaster Recovery Fund (DRF):</p> <ol style="list-style-type: none"> 1. Raise or eliminate the Fund's statutory balance limit. 2. Provide a reliable, long-term funding allocation. 3. Revise the Fund's chapter rule to prioritize provision of the non-federal cost share to FEMA disaster programs resulting from a Presidentially Declared Disaster or Emergency and to prioritize building back with greater resilience after disasters. 4. Restructure the Fund's non-federal cost share formula to incentivize municipal adoption of resilience practices and higher standards. 	3-5 years	MEMA (with GOPIF and MOCA)		Would require legislative action
Convene a work group to evaluate the feasibility of various insurance models for public infrastructure and private working waterfront properties.	3-5 years	GOPIF and State Resilience Office		Existing NOAA CRRC grant

Timeframe 6-10 years

Activity	Timeframe	Lead (and partners)	Status	Resources
<i>Identify, prioritize, and strengthen vulnerable infrastructure.</i>				
Recruit more students into resilience-related fields such as engineering and community planning.	6-10 years	University of Maine System, Maine Community College System and Career and Technical Education programs		
<i>Assist communities to effectively assess and reduce risk.</i>				
Incentivize communities to take regional or watershed approaches to planning, prioritization and investment in risk reduction and resilient infrastructure.	6-10 years	MOCA		Community Resilience Partnership grants
<i>Improve data and information sharing to help leaders make informed decisions about risk.</i>				
Increase the number of river and tide gauges to improve real-time access to water level monitoring and predictions.	6-10 years	DACF Maine Geologic Survey		
Establish a Center for Disaster Risk Analysis in partnership with universities and philanthropy that will identify critical data gaps, develop new analytical capabilities, and train a workforce skilled in risk communication and management.	6-10 years	Universities and philanthropy community		
<i>Develop long-term funding and financing strategies for infrastructure resilience.</i>				
Expand loan and incentive programs to help businesses that support infrastructure projects (such as construction firms and engineering firms) to invest in equipment and systems for resilience-related projects.	6-10 years	DECD		Requires budget/legislative action

The iconic Pemaquid Point Lighthouse shines bright again, after it was restored following damage from the winter 2024 storms. The century-old bell tower in Bristol was devastated when storm surge wiped out two brick walls from the historic structure. Volunteers salvaged some of the original bricks to help repair it, cleaned up debris immediately following, and Bristol Parks and Recreation worked to ensure the repairs were done as authentically as possible. Now, additional stainless steel rods will help hold the roof and walls together in the event of another storm event. **Credit: Town of Bristol**



Infrastructure
Rebuilding and Resilience
Commission



maine.gov/future/infrastructure-commission

APPENDIX E

THE LINCOLN COUNTY SOCIAL
RESILIENCE PROJECT FINAL REPORT



Lincoln County Social Resilience Project Final Report



Lincoln County Regional Planning Commission Executive Director Emily Rabbe and her children enjoying themselves at *Neighbors Helping Neighbors: Sharing Stories, Preparing for Winter Storms* community dinner on November 14, 2024, in Waldoboro.

May 2025

Project Team:

Kristen Grant, Maine Sea Grant and University of Maine Extension

Elizabeth Hertz, Blue Sky Planning Solutions

Eileen Sylvan Johnson, Bowdoin College

Gabe McPhail, Resilient Communities

Emily Rabbe, Lincoln County Regional Planning Commission

CONTENTS

LINCOLN COUNTY SOCIAL RESILIENCE PROJECT EXECUTIVE SUMMARY	3
Overview	3
What we learned from Focus Groups, Interviews, and Community Dinner Conversations	4
What we learned from the Community Leaders' Workshop	6
Detailed Summary of Focus Groups, Interviews, and Community Dinner Conversations.....	9
What were the most critical impacts of last winter's storms?	9
Who was most impacted by last winter's storms?	10
What resources were most important to assist those individuals at greatest risk during last winter's storms?	11
What were the challenges in either providing or receiving resources during last winter's storms?	12
What are opportunities for improving community resilience before, during, and after storm events?	14
Detailed Summary of Community Leaders' Workshop.....	17
Learning from Last Winter's Storms: Coordinating Actions We Can Take to Prepare	17
Results: Prioritization of impacts	17
Key Actions Identified at the Community Leaders' Workshop	19
Actions by Sectoral Role	22
Results of the Pre and Post Surveys from the Community Leaders' Workshop	25
Perception of the importance of cross-sector collaboration	25
Prioritization of actions	26
New approaches to building resilience in the region	28
Changes in perception of organization's involvement	28
Understanding the needs of community members experiencing heightened social vulnerability to the impacts of storms ..	28
Key Takeaways from the Community Leaders' Workshop	29
Conclusion	29
Next Steps	30
Appendices	32
Appendix A: Impacts Table	32
Appendix B: Actions by Sectoral Role chart	36
Appendix C: Post-Survey Question Responses	40

Lincoln County Social Resilience Project

Executive Summary

Overview

- The Social Resilience Project focuses on understanding the resilience and capacity of five sectors (business, conservation, emergency management, municipal, and social services) to help community members experiencing heightened social vulnerability¹ prepare for, respond to, and recover from extreme storm events in Lincoln County.
- This project builds on an earlier [Social Resilience Project](#) (SRP) in eight communities in Southern Midcoast Maine –Harpwell, Brunswick, West Bath, Bath, Phippsburg, Georgetown, Arrowsic, and Woolwich. In this earlier project, the SRP Project Team held focus groups with representatives from the conservation, emergency management, municipal, and social services sectors. The project culminated in a scenario planning exercise to facilitate cross-sector discussions on preparing for, responding to and recovering from extreme storm events. The final report for the Southern Midcoast Social Resilience Project and general information about the Social Resilience Project is available through [Maine Sea Grant](#).
- Both the Lincoln County Social Resilience Project and the Southern Midcoast Social Resilience Project focus on supporting the needs of community members who experience heightened social vulnerability to the impact of extreme storm events.
- The Lincoln County SRP Project Team conducted **five focus groups and seven interviews** between May and June, 2024, engaging a total of 37 participants across the business, conservation, emergency management, municipal, and social services sectors, to ensure that perspectives from each sector were well represented. The goal of the focus groups was to develop a baseline understanding of how each sector had prepared for and/or responded to the storms during the winter of 2023-2024.
- In August 2024, the SRP Project Team conducted **14 community member interviews at two events**—one focused on older adults and the other on families with children—to explore the impact of storms on these groups. Both of these groups are identified as experiencing heightened social vulnerability through the US Center for Disease Control (CDC) and in the [Maine Social Vulnerability Index Dashboard](#).
- In November 2024, in collaboration with the Lincoln County SRP Advisory Committee, the Project Team hosted a **community dinner**, *Neighbors Helping Neighbors: Sharing Stories. Preparing for Winter Storms*, to engage directly with residents. The event included 67 participants: 25 community members, representatives from 10 service provider organizations, and 13 individual service providers. Eleven of Lincoln County’s 19 communities were represented at the dinner. Following the community dinner, the Project Team summarized the key topics that were heard in the focus groups, interviews and at the community dinner and shared these with community leaders in advance of a workshop for community leaders.

¹ **Social Vulnerability** relates to the circumstances of a person or community that affect their capacity to anticipate, confront, repair, and recover from the effects of a disaster. [Learn more here.](#)

- In December 2024, in collaboration with the Lincoln County SRP Advisory Committee, the Project Team hosted a **workshop for community leaders**, *Learning from last year's storms: Coordinating actions we can take to prepare*, to convene community leaders across the five sectors. The event included 42 participants: 8 representing emergency management; 2 representing business; 8 representing municipalities; 7 representing natural resources/conservation; 9 representing social services; and 1 representing youth. To launch the community leaders' workshop, the summary of key topics from the focus groups, interviews and at the community dinner was reviewed. Next the participants engaged in table conversations with representatives of each sector at each table to identify priorities and next steps to address selected priorities. More details on this process are described below, under *What we learned from the Community Leaders Workshop*.

What we learned from Focus Groups, Interviews, and Community Dinner Conversations

Below is a list of critical concerns, opportunities and challenges shared in the focus groups, interviews and at the community dinner. This summary highlights the perspectives of community members who experience heightened vulnerability to the impacts of storms. Detailed responses to specific questions are provided in the full Lincoln County Social Resilience Project report (available at [Maine Sea Grant](#)).

- **Power outages are a critical challenge.**
 - Extended power outages disrupt essential functions like heating, cooking, water access, and medical device use, particularly for older residents and those with health issues.
 - Backup systems such as generators and wood stoves are vital but not available to many households and/or don't provide sufficient power/heat to meet household needs.
- **Food insecurity can be exacerbated by extreme storm events.**
 - Frequent outages result in food spoilage, with low-income and fixed-income households struggling to replace perishable items.
 - Limited transportation and blocked roads further hinder access to food pantries and grocery stores.
 - Stigma associated with accessing food pantries contributes to community members' reluctance to use these resources, either after a storm event or when experiencing food insecurity more broadly.
- **Communication gaps can limit the ability to prepare for and recover from storms.**
 - Power and internet outages hinder information access, leaving vulnerable community members reliant on neighbors and landlines.
 - Lack of centralized communication systems results in inconsistent dissemination of storm-related updates².

² "Storm related updates" can mean communications when preparing for a storm event, during the storm, and/or recovery resources post-storm.

- **Community members face challenges accessing support resources.**
 - Inaccessible roads limit access to food, supplies, and warming shelters.
 - Community members frequently report receiving needed support from neighbors and social service agencies.
 - Volunteer capacity exists but is not utilized effectively because community members could use more guidance on how to connect with volunteer organizations, and sector representatives described the need for coordinating volunteer efforts.
 - Concerns about leaving pets behind influence residents' willingness to use warming shelters.
- **Extreme storms impact physical and mental health and safety.**
 - Power outages and blocked roads prevent access to needed emergency services and information, threatening community members' physical and mental health and safety in the short and long term.
- **Economic and educational disruptions have short and long-term impacts.**
 - The occurrence of multiple storm events over a short time resulted in the vulnerability of community members who have not generally been at risk in the past.
 - School and business closures affect family income, childcare options, food security, and children's education.
 - Damage to physical infrastructure and power loss have compounding impacts on businesses and residents.
- **Physical infrastructure damage requires long-term economic recovery.**
 - Significant damage to roads and working waterfront infrastructure prompted efforts to access disaster recovery programs, which are often limited in scope and not always timely.
 - Efforts to restore infrastructure before the start of tourist and fishing seasons required shorter-term fixes than would otherwise have been implemented.
- **Isolation of community members heightens vulnerabilities.**
 - Blocked roads and limited access to warming shelters isolated residents, particularly those with mobility challenges, increasing their risk levels.
 - Lack of familiarity with local resources specifically and Maine's climate generally, may have resulted in seasonal residents and New Mainers experiencing isolation and increased impacts of storms.
- **Community support networks and cross-sector collaborations are essential.**
 - Neighbors play a crucial role in sharing resources, food, and providing welfare checks, demonstrating the importance of strong local connections.
 - Proactive planning, better access to resources, and enhanced cross-sector collaboration are vital for addressing the multifaceted impacts of storms.

What we learned from the Community Leaders' Workshop

Prioritizing Impacts

The Community Leaders' Workshop engaged representatives from each of the five sectors in table discussions. Building upon what we had learned from the focus groups, interviews and community dinner conversations, leaders were asked to prioritize the key impacts of the winter 2023–2024 storm events. We have included the list of all the impacts identified by focus groups, interviews and at the community dinner in [Appendix A](#) on pages 32 – 35.

After facilitated discussion at each table, participants prioritized the key impacts by ranking from 9 (most critical) to 1 (least critical). Next the votes from all of the tables were tallied. The list below identifies the prioritization of these impacts, as ranked by the entire group of participating leaders (the overall numeric rankings are included in parentheses). Participants noted that many of the impacts were connected.

- (244) - Power Outages
- (239) - Communication Gaps
- (187) - Physical and Mental Health and Safety
- (183) - Challenges with Accessing Resources
- (173) - Food Insecurity
- (169) - Community Support Networks and Cross-Sector Collaborations
- (158) - Isolated Community Members
- (124) - Physical Infrastructure Damage/ Long-Term Economic Recovery
- (88) - Economic and Educational Disruptions

Identifying Strategies to Address Impacts

In the second half of the workshop, each table was assigned a specific impact (i.e. power outages) to discuss and develop strategies and actions that addressed this impact. These strategies and actions include things like improving communication networks, education and outreach on storm preparedness, developing volunteer networks, for example. A full summary of the developed action items is available in the full Lincoln County Social Resilience Project report (available at [Maine Sea Grant](#)).

Identifying Next Steps

In a follow-up survey, participants in the Community Leaders' Workshop were asked to determine if the identified strategies and actions should be taken in the short or long term. Several action items were identified as key to take in both the short term and long term.

Actions identified by community leaders to take in both the short and long term

- **Diversify Communications.** Develop a communication system that includes a diverse range of tools and approaches.
- **Storm Preparedness Education.** Increase education on storm preparedness to community members during non-emergencies highlighting existing resources and provide storm preparation guides in advance of storms as needed.

- **Volunteer Networks.** Develop and expand volunteer networks and training resources for storm preparedness and immediate recovery.

Actions to take in the short term

- **Neighbor-to-Neighbor Programs.** Expand neighbor-to-neighbor/support networks and local/neighborhood emergency planning.
- **Wellness Checks.** Know and support our communities by identifying vulnerable community members and expanding opt-in for wellness checks.

Actions to take in the long term

- **Long term recovery planning.** Develop strategies for longer term recovery needs such identifying grant opportunities or expanding the pool of local contractors.
- **Regional Resources Inventory.** Inventory local support resources available at different stages (preparation, response, recovery) and make this inventory readily available to residents and organizations.
- **Storm Preparedness Education.** Increase education on storm preparedness to community members during non-emergencies highlighting existing resources and provide storm preparation guides in advance of storms as needed
- **Volunteer Networks.** Develop and expand volunteer networks and training resources for storm preparedness and immediate recovery.

Other Findings from the Follow Up Survey

The community leaders' responses to the follow up survey also provided other important findings that may be helpful in moving Lincoln County toward increased social resilience.

Increased Perception of Involvement in Addressing Emergencies

After participating in the workshop, there was a significant (15 percentage points) increase in the number of community leaders who indicated that their organization could be very involved in preparing for, responding to, or recovering from emergencies. This suggests that engaging with leaders from other sectors helped participants to clarify how services provided by their organizations could be valuable during emergencies.

Increased Perception of Involvement in Addressing Social Impacts Associated with Storm Events.

While there was very little change in how community leaders viewed their organization's involvement in addressing physical damage from storms, their views on involvement with social impacts changed dramatically. Before the workshop, 19% of leaders indicated that their organizations could be involved to very involved with addressing social impacts, and after the workshop that number increased to 41%. This suggests that engaging with leaders from other sectors helped leaders to increase their understanding of the social impacts that result from emergencies, and also to clarify how the services provided by their organizations could help to address these impacts.

Leaders Identification of the Groups Most Vulnerable to Storm Events

The groups below were ranked as most vulnerable by community leaders in the follow up survey.

- Low-income households
- Individuals 65 or over and living alone
- Individuals experiencing housing insecurity
- Individuals experiencing food insecurity
- Individuals 65 or over
- Households below poverty
- Households without a vehicle
- Individuals who are uninsured/underinsured
- Households with one or more members with a disability

Leaders Identification of New Partnerships

In the follow up survey, the organizations below were most commonly identified as new partners by community leaders. This suggests that community leaders are receptive to collaboration generally and with these organizations in particular.

- Lincoln County Emergency Management Agency (EMA)
- Central Lincoln County YMCA
- Maine Coastal Program
- Central Maine Power (CMP)
- Healthy Lincoln County
- Maine Emergency Management Agency (MEMA)/American Red Cross
- Lincoln County Regional Planning Commission (LCRPC)

Key Takeaways from the Community Leaders' Workshop

At the conclusion of the follow up survey, leaders were asked to identify a key takeaway they gained from participating in the workshop. Participants emphasized the importance of **continued collaboration across sectors** and across scales (from local to state) in order to craft approaches to meet the needs of the region's most vulnerable residents. Leaders also identified the importance of **communication and learning about other resources** and the need for **planning and preparedness**. Below are several quotes from leaders on these themes:

Collaboration, Networks, Partnerships

“There are so many aspects of social resilience in place that I didn’t know about, and collaboration is key!!”

Communication, Awareness of Resources

“Gathering groups together and making people aware of who and what is out there makes a huge impact.”

Planning, Preparedness

“Work should occur outside of storm events so we’re better prepared/coordinated when a storm or other event occurs.”

Detailed Summary of Focus Groups, Interviews, and Community Dinner Conversations

The following pages provide a more detailed summary of the findings from the focus groups, interviews, and community dinner conversations.

The following general questions were asked of the participants in the focus groups, interviews and at the community dinner:

- What were the most critical impacts of last year’s storms?
- Who was most impacted?
- What resources were important to assist those individuals at greatest risk?
- What were challenges in either providing or receiving resources?
- What are opportunities for enhanced community resilience towards storm events?

Questions were framed slightly differently for service providers and for residents. The main themes raised by service providers and community members in response to these questions are summarized below and shown in callout boxes for ease of reference.

What were the most critical impacts of last winter’s storms?

Although impacts were widespread and varied across communities, several key impacts were mentioned most frequently by residents. These impacts affect residents’ health, safety, and livelihoods.

Although impacts were widespread and varied across communities, several key impacts were mentioned most frequently by residents. These impacts affect residents’ health, safety, and livelihoods.

- **Loss of power** was identified as the most prevalent theme that had a compounding impact on residents, affecting heating, cooking, and the ability to keep food. An additional impact was **loss of access to water** when pumps could not run during extended power outages. Residents experienced **health challenges from the power outages**. For older residents and those with compromised health, power outages impacted medical devices, including failed alert systems, limited ability to refrigerate medications, and challenges for individuals reliant on other medical equipment. Although residents identified strategies for storm preparation, the back-to-back nature of the

storms and extended power outages resulted in challenges. **Having a functional generator** that could be used by the homeowner made the biggest difference for residents. An important dimension of this challenge was the need for **enhanced support for home weatherization**, particularly for older adults

- **Food insecurity** was a second key theme, with many individuals highlighting the compounded impact of back-to-back storms on their ability to store and replace food due to spoilage. This issue was especially challenging for residents on low or fixed incomes, as inaccessible roads further limited their ability to replace spoiled food.
- **Closures of schools and businesses** required residents to take leave or in some instances completely miss out on income generating work, which contributed to gaps in earnings. This placed some otherwise stable households in precarious financial positions. **Residents also cited loss of income as an impact** that was connected to **closure of schools** as they were forced to take time off from work to stay home with their children. **School closures further impacted children**, who lost access to food (school breakfast and/or lunch), experienced a loss of continuity in their education, and lost connection to community. Business closures further limited residents' ability to purchase replacement groceries, medications, or fuel for backup energy and heating systems. Natural resource livelihoods were impacted by extended power outages and impacts to working waterfront infrastructure.
- **Physical damage** to roads, driveways, and homes as well as **debris and flooding that blocked access to roads** proved challenging. Blocked roads and driveways restricted residents' ability to travel to stores and hindered access for emergency responders. **Catastrophic impacts to working waterfronts** affected not only fishing industry members and their families, but also businesses associated with providing services to this sector.
- **Mental and emotional stress** were experienced both by residents due to the nature of the back-to-back storms and by service providers responding to the storms. **Parents of young children described the stress caused by school and daycare closures**, as they had to balance work responsibilities with caring for their children during extended power outages.

Who was most impacted by last winter's storms?

Isolated residents, those facing financial hardship, families with young children, and essential workers and service providers were identified as most impacted.

- **Isolated residents** reported being impacted by storms in various ways. Isolation can occur in multiple forms. **Older residents living alone** were particularly vulnerable. **Those at the end of private roads or in remote areas** faced challenges with loss of access and prolonged power outages. **Seasonal residents with limited community connections** struggled to access information and resources. **Older residents with mobility challenges** experienced heightened vulnerability due to limited transportation options. Additionally, several residents expressed concerns that **New Mainers** might face unique challenges, including limited knowledge of available services, lack of experience with extreme storms, and language barriers.
- **Residents facing financial hardship** described the impact of back-to-back storms, including income gaps, the stress of caring for children or older family members, and the financial burden of replacing food after multiple power outages. Residents expressed concerns about the impacts on **unhoused individuals**, who may lack resources or awareness of upcoming storms. Several

residents reported heightened financial stress, with the storms creating **new vulnerabilities they had not experienced before**. However, many felt they did not qualify for assistance due to their current income levels. Residents described neighbors or family members who were reluctant to access services due to **stigma or concerns that they would not qualify for programs**. Some residents described challenges associated with **paperwork needed to request services** and need for assistance to complete forms.

- **Families with young children**, particularly those families with **limited income** but who may also be ineligible for certain programs, struggled to recover from repeated storms. **Single parents** faced challenges balancing work and providing for their children when schools are closed.
- **Essential workers and service providers** described the dual challenges of managing the personal impacts of storms while also providing resources and supporting their communities. Specific issues included disruptions from school closures, difficulties navigating roads, and coping with extended power outages at home. Impacts on **community members experiencing substance use disorder**, who could face interruptions in essential services during repeated storm events.

What resources were most important to assist those individuals at greatest risk during last winter's storms?

Support received from neighbors and family, Central Maine Power, and community-based organizations such as food pantries were noted as important resources for those at greatest risk.

- **Food Pantries.** Food pantries were an essential resource for residents who had lost food from power outages, experienced economic impacts from gaps in earnings, or were unable to cook food during extended power outages.
- **Neighbors helping neighbors.** Residents described the key role that neighbors provided as a source of information and resources. Residents described relying on neighbors for food, help with accessing and operating generators, and assistance in removing debris. Residents also described their experiences reaching out to neighbors to share food from food pantries or to assist with sharing generators. Some of the examples provided were the importance of checking in with neighbors; providing food when needed; and farmers helping other farmers during extended power outages. Residents also noted the importance of having family members nearby to assist. Several residents expressed concerns that political differences between community members were contributing to a weakening of connections among residents.
- **Mutual Aid Agreements.** At the community level, mutual aid agreements between towns played a crucial role in accessing regional resources for plowing roads and removing debris. Several service providers highlighted the value of receiving timely information from emergency management staff before, during, and after storms. **Backup heat and power sources, including wood stoves and generators**, were described by many residents as making a difference in their ability to shelter in place.
- **Central Maine Power.** CMP was mentioned frequently by residents as key to finding out updates on power restoration, as well as actively removing trees affecting power, and restoring power. Many residents noted that CMP was a key source of information, although a few residents were unaware that CMP provides power updates. CMP is also working to educate residents, towns, and organizations about the process for restoring service and implementing infrastructure upgrades.

- **Communication Systems.** There are a range of communication systems in place, including community Facebook pages and D4H—an emergency response communication software that is used by the emergency management sector for updating community impacts and Code Red, an opt-in program for community members to learn about upcoming and current storm impacts. The emergency management sector responded to the storms by enhancing communication systems among first responders through backup radio systems and communication systems and provided more access to D4H.

What were the challenges in either providing or receiving resources during last winter's storms?

CHALLENGE: This winter's storms highlighted gaps in ability to access food and transportation, as well as the need for backup heating and power systems.

- **Limited access to backup power and heating systems.** Residents described limited access to generators or, if they had them, difficulties in operating, repairing, or replacing them due to frequent storms and prolonged use. Some residents inquired about programs that could assist with installing backup heat systems, such as wood stoves. Older residents described difficulties in maintaining older homes and the limitations of powering appliances and heating systems with the restricted capacity of generators.
- **Inconsistent access to food pantries.** While many residents emphasized the importance of local food pantries, several community members reported challenges in accessing them due to limited transportation options, restricted hours, or stigma associated with their use.
- **Limited access to transportation** emerged as a key theme for residents needing to purchase supplies before a storm, access food pantries, or travel to a warming shelter during the storm. **Residents living on private roads** faced unique challenges, including lack of plowing services during extreme weather and extended power outages due to their remote locations.
- **Warming shelters** provided relief for residents. Some service providers noted that warming shelters were underutilized and that power outages impacted provision of warming shelters. Residents noted that they had concerns about **supporting medical devices** and about **traveling safely to warming shelters**. A recurring theme was the **reluctance to leave homes if they had pets** that needed care. Some residents described not being aware of warming shelters or where they were located.

CHALLENGE: Gaps in communication systems and inconsistent strategies to provide support services were identified as problematic.

- **Power outages disrupt the most commonly used communication systems.** Residents described using radios, televisions, computers/internet, and cell phones, which were all disrupted during extended power outages.
- A key gap noted was that residents and service providers identified **differences in the communication sources** they use. These differences **contributed to challenges** residents faced in receiving advance information about storm impacts, accessing support during storms, and finding resources for recovery. **The primary source of information most cited by residents was neighbors, family members, local news, and community Facebook sites.** Some residents noted

they received information about warming shelters and updates on power outages from local officials and fire departments.

- **The lack of cell/smart phone, type of phone, and/or phone service** that residents have was key to accessing communication channels. Residents described the importance of landlines in having continuous information as well as challenges in receiving information when a resident had no cell phone or had a non-internet enabled phone. Residents in more rural areas described impacts of extended **power outages** and **limited internet access**, as well as **limited cell coverage** that contributed to challenges in receiving updated information. In particular, interruptions in communication systems impact community members experiencing social vulnerability if those interruptions result in a gap in service provision.
- **Communication gaps existing among service providers** hamper the ability to respond to storm impacts and provide resources.
- Information on resources for recovery was often limited or changed frequently. Many **service providers noted the use of social media to gather and provide information** on storm impacts. Service providers described the **need for increased information in advance of storms** to provide information about resources that community members may need. Service providers and residents also noted the need for a **centralized communication system**. Community members and service providers noted that not all residents use social media, and that multiple, diverse approaches to disseminating information is needed.

CHALLENGE: Raising awareness of and engaging residents in hazard mitigation planning.

- There is a need for **understanding and engaging with community hazard mitigation planning**. Several residents talked about the need for hazard planning and were not aware of ongoing planning initiatives at the town and county level. At the same time, service providers have been collaborating across sectors to strengthen regional mitigation efforts. Emergency management agencies have connected with social service organizations to share information with their clients; however, residents may be unaware of these regional planning processes.

CHALLENGE: Longer term recovery is hampered by lack of insurance, limited information on federal programs, differences in capacity between towns, and the need for more contractors to address repairs.

- In the wake of the storms, many residents described **challenges in finding contractors to repair damage** and expressed the need for enhanced training in skilled trades and investment in programs to expand current repair services.
- **Residents expressed frustration with insurance coverage** that failed to cover storm-related damages or prolonged recovery processes. This was particularly challenging for those reliant on natural resource-based livelihoods, who faced losses from power outages and damage to working waterfronts. These insurance gaps hindered their ability to recover from storm impacts.
- Residents highlighted **differences in capacity between towns**, emphasizing the importance of mutual aid systems. They also noted opportunities for other sectors, (such as conservation organizations assisting with grant writing or social service agencies providing support) to help smaller communities enhance local resilience. Municipalities also expressed challenges around funding limitations, capacity to write grants, and the need for flexibility to fund repairs in a timely manner.

What are opportunities for improving community resilience before, during, and after storm events?

OPPORTUNITY: Providing backup power and heating systems is important.

- **Providing backup power and heating systems** can contribute to storm preparedness. Residents described accessing neighbors' generators as an important resilience strategy. One community program provides a **loaner generator**, but during a storm, there are difficulties in identifying who needs this resource and getting the equipment to a household in need. Residents also described reliance on **backup systems like woodstoves** and the value of providing funding options to help with purchasing wood stoves and wood sources. To **address the lack of water**, residents mentioned South Bristol fire department that made water available for residents during the storm.

OPPORTUNITY: Addressing the unique challenges of food availability during storms is critical.

- **Building upon the strengths of services that address food insecurity** was a key theme raised in all interviews and meetings. Residents praised the role of local food pantries. Given the challenges of accessing and replenishing food, resources such as community refrigerators, Health Lincoln Counties' sharing tables, and Maine Health's program of providing food pantry locations at doctors' offices are essential. These resources address both easy access before, during, and after storm events, and help address the stigma some residents may feel in accessing food pantries. Residents also described the **value of holding community meetings to discuss ways to donate food to address food insecurity challenges** associated with storm impacts. For the longer term, suggestions were made to enhance local food production as was experienced during the COVID-19 pandemic.

OPPORTUNITY: Developing a diversified communication system that meets the needs of residents.

- **A diversified and centralized communication system was described by both residents and service providers as key to storm preparedness and recovery.** Several different effective communication systems were described. To help connect residents with information on storm updates, one town developed an email distribution list for residents to receive emergency alerts. In another example, CMP **engages with residents and communities** outside of emergency situations to inform communities about grid upgrades, , the prioritization for power restoration, and ways to access information about power outages. Opportunities may exist to collaborate with CMP in communicating with area communities and organizations.
- Currently there are **limited options to identify and provide information to residents who have special needs** (older, medical concerns, financial challenges, unhoused, physical disabilities) and may be impacted to a greater extent. There are examples of approaches for developing a communications plan that can be based upon **marketing communications or marcom** used currently by the business sector. **Local organizations such as the Wiscasset Senior Center** were described as a source of information.
- One resident described a program in another state where residents would receive **calls from local pharmacies to pick up prescriptions** in advance of storms.

OPPORTUNITY: Proactive storm preparedness builds upon community members' capacities.

- **Residents' prior experience with storms helped prepare them for the storms experienced last year.** Many residents and service providers described innovative ways they were prepared for storms based upon past experiences. However, the back-to-back nature of the storms challenged the effectiveness of sheltering in place. Some residents and service providers noted concerns about some residents' limited knowledge of storm preparedness strategies. Providing proactive information about storm preparedness, such as **step by step guides for storm preparedness** was one strategy residents –particularly older residents– identified to help better prepare for the impacts of back-to-back storms. **Having real-time information sources**, such as tide gauges and emergency alerts, and **consistent ways to communicate information** about flooding, power restoration, and resource availability were described as helpful for residents in preparing for emergencies and sheltering in place.

OPPORTUNITY: Expand and enhance current resources to improve community resilience.

- **Living situations** such as senior housing can provide support and communication for residents during storm events, but can also provide challenges if not equipped with a generator or if residents cannot access back up power or heating systems.
- Community members described **resource sharing programs**, such as programs for lending tools, phones, and lithium batteries, and facilitating networks for sharing generators as ways to provide residents with the resources needed for storm preparedness and to manage during a storm event.

OPPORTUNITY: Community building is key.

- **Strengthening local networks and connections** for sharing resources and information was described as an important way to help residents be ready for storm impacts and address impacts and recover from impacts. Creation of **neighbor check-in or buddy systems** were ideas suggested by community members. A **community check-in program** was described as one approach to assist with ensuring isolated residents were prepared in advance of and during storms. Local communities expressed the need for developing **public support for investments** in resilient infrastructure.
- **Strengthening collaborations among and within sectors** (i.e. emergency management and town government or between social service agencies) is important for strengthening community networks, sharing information, and reducing duplication.
- Residents mentioned **libraries and churches** as important sources of information and resources that could be expanded to help build connections among residents. Residents described how churches provided an opportunity to both give and receive assistance and how area churches have **helped residents with accessing and filling out forms** for support programs available to them.

- **Develop a volunteer network to assist with storm preparedness, response and recovery.** One strategy is to facilitate partnerships between organizations with needs and organizations with volunteers able to address that need, such as volunteers trained to use chainsaws to help with debris removal. Volunteer networks can also be mobilized for wellness checks and assistance with daily needs. Service providers described existing strategies for training and mobilizing volunteers but need to have guidance in deploying volunteers. VOAD (Voluntary Organizations Active in Disaster) could be a model/source of volunteers.
- **Teaching skills such as carpentry** could empower communities to recover more independently by expanding the number of skilled trades people in the region.

Detailed Summary of Community Leaders' Workshop

Learning from Last Winter's Storms: Coordinating Actions We Can Take to Prepare

Community leaders representing each of the sectors ((business, conservation, emergency management, municipal, social services, and youth) at local, regional and state levels were invited to participate in a workshop: *Learning from Last Winter's Storms: Coordinating Actions We Can Take to Prepare*. In advance of the December 10th workshop, a detailed summary of focus groups, interviews and community dinner was shared with participants and participants were asked to fill out a pre-workshop survey.

In total 42 participants attended: 8 representing emergency management; 2 representing business; 8 representing municipalities; 7 representing conservation; 9 representing social services; 1 representing youth; plus 6 volunteers who supported the event by facilitating and notetaking during table discussions. Eleven of Lincoln County's 19 communities were represented in addition to 22 participants representing regional or statewide organizations.

The Project Team organized participants by table, assigning representatives from each sector at each table to allow cross-sector discussion. The project team provided an overview of the project findings and identified actions. During the first half of the workshop, participants at each table introduced themselves and then engaged in a facilitated discussion, referencing the chart provided in [Appendix A A Summary of Impacts, Themes, Gaps, Resources, and Opportunities](#). Following the discussion, participants prioritized the impacts through a voting process. The voting results for each table were tabulated to develop a workshop-wide prioritization of the impacts (see Table 1 below). Each table was then assigned a specific impact for discussion during the second half of the workshop.

During the second half of the workshop, participants identified actions to address the particular impact assigned to their table. These actions were recorded by participants on sticky notes and also by note takers. The results of these discussions are summarized on pages 19–22 below.

See Appendix A: Impacts Table for the chart used by participants at the Community Leaders' Workshop, *A Summary of Impacts, Themes, Gaps, Resources, and Opportunities*.

Results: Prioritization of impacts

The list below notes the impacts that were identified as priorities by participants in the Community Leaders' workshop. Participants were instructed to give their highest priority the highest number (9) and their lowest priority the lowest number (1). For example, *Power Outages* received a total of 244 points in participant voting, making this the most highly prioritized impact by participants.

- (244) - Power Outages
- (239) - Communication Gaps
- (187) - Physical and Mental Health and Safety
- (183) - Challenges with Accessing Resources
- (173) - Food Insecurity
- (169) - Community Support Networks and Cross-Sector Collaborations

- (158) - Isolated Community Members
- (124) - Physical Infrastructure Damage/ Long-Term Economic Recovery
- (88) - Economic and Educational Disruptions

Table 1: Summary of votes by discussion table

Table 1 below notes the total number of points allocated to each of the impacts, based on the cumulative number of points tallied from the votes of all participants at each discussion table.

Impacts	1 (244) Power Outages	2 (239) Communi- cation Gaps	3 (187) Health & Safety	4 (183) Access Resources	5 (173) Food Insecurity	6 (169) Networks & Collabora- tion	7 (158) Isolation	8 (124) Infrastruc- ture	9 (88) Economy & Education
Table 1	46	41	37	25	28	22	24	31	16
Table 2	37	29	22	35	21	26	24	13	18
Table 3	25	32	22	18	23	20	13	14	13
Table 4	50	49	36	40	34	37	31	24	14
Table 5	27	20	14	12	21	6	17	15	3
Table 6	24	40	28	23	27	35	20	5	18
Table 7	35	28	28	30	19	23	29	22	11

Key Actions Identified at the Community Leaders' Workshop

The following is a list of key actions identified by participants across all table discussions.

- **Volunteer Networks.** Develop and expand volunteer networks and training resources for storm preparedness and immediate recovery.
 - Train volunteers in mitigation, preparedness, and planning, providing CEUs.
 - Establish roles and responsibilities for volunteers in advance of emergencies
 - Mobilize volunteer trail crews from conservation organizations to clear fallen debris.
 - Create a local volunteer list and provide volunteer management training.
 - Use CERT (Community Emergency Response Teams) models to structure volunteer engagement.
- **Diversify Communications.** Create a central, regularly updated communication hub using multiple modes such as social media, signage, call trees, and broadcasts.
 - Share communication channels in reliable locations like community centers and churches.
 - Partner with public radio to disseminate real-time updates about resources.
 - Use door-to-door delivery of messages via tags or in-person visits for areas without internet access.
 - Leverage existing networks such as bulletin boards and “one-stop shopping” communication spots.
- **Wellness Checks.** Know and support our communities by identifying vulnerable community members and expanding opt-in for wellness checks.
 - Map community blocks to identify vulnerable residents and create an inventory for wellness checks.
 - Use morning call-in systems through police departments for high-risk residents.
 - Promote the use of Red/Green window indicators for emergency status during storms.
 - Empower community members with training on using technology for emergency communication, especially for older adults and New Mainers.
 - Expand existing programs like “Are You OK?” daily call programs through the Sheriff’s Office and local police departments.
- **Storm Preparedness Education.** Increase education on storm preparedness to community members during non-emergencies highlighting existing resources and provide storm preparation guides in advance of storms as needed
 - Teach children storm preparedness through schools.
 - Conduct public training on safe generator use, wood stove maintenance, and backup power systems.
 - Provide preparedness information through local newspapers and TV.
 - Educate the public on generator testing and maintenance to ensure readiness before storms.
 - Distribute preparedness guides as part of registration forms or welcome packages for new residents.

- **Generator and Backup Heat Programs.** Expand backup generator and/or battery lending programs and encourage backup heat systems such as wood stoves.
 - Expand battery lending programs (using the Town of Alna's as a model) for food-vulnerable residents, providing backup power for refrigerators or essential appliances. Install battery storage matched with solar installations in community centers for warming/cooling facilities. Advocate for legislative mandates requiring generators for critical facilities such as cell towers and grocery stores.
 - Provide education and support for installing wood stoves and other backup heat sources.
 - Work with residents to test backup power equipment, ensuring readiness.
- **Warming Shelters.** Promote, expand and enhance warming shelters and other community centers that can provide spaces for charging phones, or taking showers.
 - Identify opportunities for strategically located warming shelters in Lincoln County (e.g., near three-phase power locations).
 - Advertise YMCA facilities that already offer workstations, showers, and food for all residents, not just members.
 - Collaborate with Central Maine Power (CMP) to locate shelters away from the end of circuits for better resilience during outages.
 - Ensure that shelters and community centers are stocked and ready for immediate use in emergencies.
 - Expand facilities with generators and backup power to serve as reliable community hubs.
- **Neighbor-to-Neighbor Programs.** Expand neighbor-to-neighbor/support networks and local/neighborhood emergency planning
 - Develop "Know Your Neighbors" campaigns to build networks and identify vulnerable individuals.
 - Activate neighborhood-level emergency planning through Home Owners' Associations (HOAs) and local organizations. Encourage civic and community groups to partner with municipalities to create localized response plans.
 - Use Neighbor-to-Neighbor phone trees to disseminate emergency updates.
 - Provide resources and training to support informal community networks that assist during crises.
- **Long term recovery planning.** Develop strategies for longer term recovery needs such identifying grant opportunities or expanding the pool of local contractors.
 - Create a list of contractors willing to sign MOUs to assist with storm recovery (e.g., road clearing).
 - Investigate long-term grant opportunities for recovery projects and infrastructure improvements.
 - Establish local emergency funds to address recovery needs while waiting for Federal Emergency Management Agency (FEMA) or state support.

- House external contractors at community centers or summer camps to ensure workforce availability. Collaborate with regional planning agencies like Lincoln County Regional Planning Commission (LCRPC) to address economic recovery needs.
- **Regional Resources Inventory.** Inventory local support resources available at different stages (preparation, response, recovery) make this inventory available to residents and organizations.
 - Develop community alert systems that inform residents about available local resources.
 - Build capacity for Lincoln County Emergency Management Agency (LCEMA) to centralize resource tracking and dissemination before and during storms.
 - Use locally available assets like tractors, chainsaws, and generators for community response.
 - Compile a list of local programs (e.g., wood splitting for older residents) and ensure this information is accessible.
 - Partner with civic organizations to identify and expand local resources for emergency response.
- **Food Sharing Programs.** Expand food sharing tables and community refrigerators and provide backup power for these sites
 - Expand community refrigerators and food sharing tables, building on programs like Veggies to Table. Fund programs like YMCA's Help Yourself Shelf, which provides emergency food resources.
 - Equip food storage locations with battery backup systems to ensure food remains viable during outages.
 - Engage food security organizations such as Good Shepherd Food Bank and Meals on Wheels to enhance community food access.
 - Use grants like the Community Action Grant to assess and address vulnerable areas affecting food distribution access.

Actions by Sectoral Role

NOTE: Because representation of the Business sector at the Learning from Last Winter's Storms Community Leaders' Workshop was lower than the other sectors, potential actions for the Business sector below have been added from the Business focus group and interviews.

This information is also presented in chart form as [Appendix B](#) on page 36.

Develop and Expand Volunteer Network and Training Resources

- **Emergency Management:**
 - Train volunteers in mitigation, preparedness, and planning, providing CEUs.
 - Establish emergency roles and responsibilities for volunteers in advance.
- **Social Services:**
 - Mobilize and coordinate volunteers for tasks like food distribution, outreach, and storm response.
- **Conservation:**
- Activate volunteer trail crews for clearing debris from roads and driveways.
- **Businesses: From Focus Group**
 - Designate volunteers who could serve as on-the-ground condition spotters who pass along observations to service providers.
 - Need for increased availability and participation in training programs for the trades to increase the regional network of tradespeople.
- **Municipalities:**
 - Partner with contractors through service agreements to ensure transportation and road clearance solutions are available.

Develop a Diversified, Centralized Communication System

- **Emergency Management:**
 - Build and manage a centralized, multimodal communication system for emergency updates.
 - Use public radio for disseminating information on resources at specific times during emergencies.
- **Social Services:**
 - Distribute communication materials and updates to underserved populations through their networks.

- **Businesses: From Focus Group**
 - Chamber role in communications and info sharing with business - newsletter, social media topic pages for storm response and relief
 - Businesses indicated that Central Maine Power is very good about keeping information up to date and they work hard to respond.
 - Chambers of Commerce could help to get information out about recovery successes to reassure visitors and keep visitors coming back to Maine
- **Municipalities:**
 - Create or activate local alert systems, such as call trees and neighbor-to-neighbor phone networks.

Know and Support Vulnerable Community Members

- **Emergency Management:**
 - Map community blocks and create an inventory of at-risk individuals for wellness checks.
 - Collaborate with local fire departments and Central Maine Power to support individuals dependent on medical devices during outages.
 - Provide information as part of first response.
- **Social Services:**
 - Connect vulnerable residents to emergency food resources, shelters, and essential supplies.
- **Businesses: From Focus Group**
 - Note the unique needs of natural resource industry businesses, their employees and families—fishing and working waterfront-dependent businesses in particular.
- **Municipalities:**
 - Use police and town departments' morning call-in lists to check on vulnerable residents.
 - Promote and distribute Red/Green window display cards for easy emergency status identification.

Education on Storm Preparedness During Non-Emergencies

- **Emergency Management:**
 - Partner with schools to teach children about preparing their homes for power outages.
 - Provide public education on safety and maintenance of alternative heat sources like wood stoves.
- **Social Services:**
- Host educational workshops on emergency preparedness and distribute storm preparation materials.
- **Municipalities:**
 - Develop questionnaires at town offices to gather information about household preparedness (e.g., backup heat sources, power prioritization needs).

Expand Backup Generator and Battery Lending Programs

- **Emergency Management:**
 - Support pilot programs like Alna's LifePO4 battery lending initiative for food-vulnerable residents.
- **Social Services:**
 - Act as distribution hubs for backup batteries and generators to residents in need.
- **Conservation:**
 - Install battery storage paired with solar installations at facilities like Coastal Rivers Conservation Trust to provide community resources.
- **Municipalities:**
 - Create and maintain lists of households with backup generators.

Promote, Expand, and Enhance Warming Shelters

- **Social Services:**
 - Promote existing facilities as warming shelters and provide food and other support during emergencies.
- **Conservation:**
 - Use facilities like those managed by conservation trusts as shelters for phone recharging, warming, or cooling.
- **Municipalities:**
 - Work in conjunction with social services agencies and with Central Maine Power to identify optimal shelter locations near three-phase power and away from the ends of circuits.

Expand Neighbor-to-Neighbor Support Networks

- **Emergency Management:**
 - Promote campaigns like *Know Your Neighbors* to strengthen local networks.
- **Social Services:**
 - Facilitate neighbor-to-neighbor support by encouraging community collaboration through their programs.
- **Municipalities:**
 - Develop local neighborhood-level emergency plans through Home Owners' Associations or by street.

Develop Strategies for Long-Term Recovery

- **Social Services:**
 - Provide ongoing food and material support to residents recovering from storm impacts.
- **Businesses: From Focus Group**
 - Need to increase the network of tradespeople in the region to work in recovery and rebuilding.

- **Municipalities:**

- Secure long-term grants for recovery projects in collaboration with Lincoln County Regional Planning Commission.
- Advocate for local emergency funds to address time-sensitive recovery needs.
- House external contractors in local community centers or summer camps during recovery periods.

Identify and Expand Local Resources

- **Emergency Management:**

- Centralize information about local assets, including tractors, chainsaws, and generators.

- **Social Services:**

- Act as hubs for resource distribution, ensuring community members have access to food and essential supplies.

- **Municipalities:**

- Partner with civic groups to identify and track local resources, like food pantries and emergency shelters.

Expand Food Sharing Tables and Community Refrigerators

- **Emergency Management:**

- Facilitate the expansion of community refrigerators and food-sharing tables.

- **Social Services:**

- Provide and manage food-sharing programs, including refrigerators and emergency food boxes.

- **Conservation:**

- Support initiatives like Veggies to Table, which supply fresh produce to community food-sharing programs.

- **Municipalities:**

- Use community grants to expand food-sharing tables and refrigerators in areas prone to flooding or food insecurity.

Results of the Pre and Post Surveys from the Community Leaders' Workshop

Participants in the Community Leaders' Workshop were asked to complete a pre-workshop and a post-workshop survey. The survey results provide some common themes related to the effect of bringing leaders from different sectors together to discuss the impact of extreme storms.

Perception of the importance of cross-sector collaboration

When asked in the post-workshop survey about the importance of establishing cross-sector partnerships in order to meet the needs of residents experiencing heightened social vulnerability, 81% of respondents said that establishing partnerships was very important.

In the post-workshop survey, participants were asked to **identify organizations with whom they intended to establish new partnerships** when planning for, responding to, and recovering from storm events. The organizations below were most commonly identified as new partners by community leaders.

This suggests that community leaders are receptive to collaboration generally and with these organizations in particular.

- Lincoln County Emergency Management Agency (EMA)
- Central Lincoln County YMCA
- Maine Coastal Program
- Central Maine Power (CMP)
- Healthy Lincoln County
- Maine Emergency Management Agency (MEMA)/American Red Cross
- Lincoln County Regional Planning Commission (LCRPC)

Prioritization of actions

Community Leaders' workshop participants identified the following actions to address impacts.

- **Volunteer Networks.** Develop and expand volunteer networks and training resources for storm preparedness and immediate recovery.
- **Diversify Communications.** Create a central, regularly updated communication hub using multiple modes such as social media, signage, call trees, and broadcasts.
- **Wellness Checks.** Know and support our communities by identifying vulnerable community members and expanding opt-in for wellness checks.
- **Storm Preparedness Education.** Increase education on storm preparedness to community members during non-emergencies highlighting existing resources and provide storm preparation guides in advance of storms as needed
- **Generator and Backup Heat Programs.** Expand backup generator and/or battery lending programs and encourage backup heat systems such as wood stoves.
- **Warming Shelters.** Promote, expand and enhance warming shelters and other community centers that can provide spaces for charging phones, or taking showers.
- **Neighbor-to-Neighbor Programs.** Expand neighbor-to-neighbor/support networks and local/neighborhood emergency planning.
- **Long term recovery planning.** Develop strategies for longer term recovery needs such identifying grant opportunities or expanding pool of local contractors.
- **Regional Resources Inventory.** Inventory local support resources available at different stages (preparation, response, recovery); make this inventory available to residents and organizations.
- **Food Sharing Programs.** Expand food sharing tables and community refrigerators; provide backup power for these sites.

Prioritization of action items to address shorter term impacts. The top 5 action items participants prioritized to address shorter term storm impacts (within 6 months of a storm event) include:

Action Item	Percent of respondents
Diversify Communications. Create a central, regularly updated communication hub using multiple modes such as social media, signage, call trees, and broadcasts.	70.37%
Neighbor-to-Neighbor Programs. Expand neighbor-to-neighbor/support networks and local/neighborhood emergency planning.	59.26%
Wellness Checks. Know and support our communities by identifying vulnerable community members and expanding opt-in for wellness checks.	55.56%
Volunteer Networks. Develop and expand volunteer networks and training resources for storm preparedness and immediate recovery.	51.85%
Storm Preparedness Education. Increase education on storm preparedness to community members during non-emergencies highlighting existing resources and provide storm preparation guides in advance of storms as needed	48.15%

Prioritization of action items to address longer term impacts. The top 5 action items participants identified to address longer term storm impacts (greater than 6 months after a storm event) include the following:

Action Item	Percent of respondents
Long term recovery planning. Develop strategies for longer term recovery needs such identifying grant opportunities or expanding pool of local contractors.	77.78%
Regional Resources Inventory. Inventory local support resources available at different stages (preparation, response, recovery) and make this inventory available to residents and organizations.	77.78%
Storm Preparedness Education. Increase education on storm preparedness to community members during non-emergencies highlighting existing resources and provide storm preparation guides in advance of storms as needed	66.67%
Volunteer Networks. Develop and expand volunteer networks and training resources for storm preparedness and immediate recovery.	55.56%
Diversity Communications. Create a central, regularly updated communication hub using multiple modes such as social media, signage, call trees, and broadcasts.	55.56%

Although prioritization of impacts vary based upon whether an action is addressing short- or long-term impacts, three action items were identified by participants as important in both the short and long term, including: Diversify communications; Developing and expanding volunteer networks and training; and Increasing education on storm preparedness.

New approaches to building resilience in the region

- In the post-workshop survey, participants were asked to share thoughts on approaches to build resilience to the impacts of storm events. Key themes that emerged from the responses include:
- Community involvement and collaborations across organizations and at different scales
- Connecting residents with existing resources
- Increasing knowledge of existing resources for both community members and service providers to raise awareness and avoid duplication of effort
- Creating Neighbor-to-Neighbor programs
- Employing varied approaches to strengthen partnerships including informal planning and formal mechanisms such as memorandums of understanding.
- Ongoing development and improvement of communication systems

Changes in perception of organization's involvement

Questions in the pre and post survey asked participants to identify the level of involvement they imagined their organization could play in preparing for, responding to and recovering from storm events at the scale the region experienced during the 2023-2024 storms. Key highlights are summarized below:

Increased perception of involvement in addressing emergencies

After participating in the workshop, there was a significant (15 percentage points) increase in the number of community leaders who indicated that their organization could be very involved in preparing for, responding to, or recovering from emergencies. This suggests that engaging with leaders from other sectors helped participants to clarify how services provided by their organizations could be valuable during emergencies.

Increased perception of involvement in addressing social impacts associated with storm events

While there was very little change in how community leaders viewed their organization's involvement in addressing physical damage from storms, their views on involvement with social impacts changed dramatically. Before the workshop, 19% of leaders indicated that their organizations could be either involved to very involved with addressing social impacts, and after the workshop that number increased to 41%. This suggests that engaging with leaders from other sectors helped leaders to increase their understanding of the social impacts that result from emergencies, and also to clarify how the services provided by their organizations could help to address these impacts.

Understanding the needs of community members experiencing heightened social vulnerability to the impacts of storms

In the post-workshop survey, respondents identified (in the list below) which residents might experience the impacts of storm events to a greater extent. In considering implementation of action items,

community leaders may want to consider how to engage specifically with residents who might fall within one or more of these groups.

- Low-income households
- Individuals 65 or over and living alone
- Individuals experiencing housing insecurity
- Individuals experiencing food insecurity
- Individuals 65 or over
- Households below poverty
- Households without a vehicle
- Individuals who are uninsured/under insured
- Households with one or more members with a disability

Key Takeaways from the Community Leaders' Workshop

At the conclusion of the post-workshop survey, leaders were asked to identify a key takeaway they gained from participating in the workshop. Participants emphasized the importance of **continued collaboration across sectors** and across scales (from local to state) in order to craft approaches to meet the needs of the region's most vulnerable residents. Leaders also identified the importance of **communication and learning about other resources** and the need for **planning and preparedness**. Below are several quotes from leaders on these themes.

Collaboration, Networks, Partnerships

“There are so many aspects of social resilience in place that I didn't know about, and collaboration is key!!”

Communication, Awareness of Resources

“Gathering groups together and making people aware of who and what is out there makes a huge impact.”

Planning, Preparedness

“Work should occur outside of storm events so we're better prepared/coordinated when a storm or other event occurs.”

Conclusion

The Social Resilience Project seeks to strengthen the connections between community members and partners in key sectors involved in preparing for, responding to, and recovering from emergencies. Building on the earlier Social Resilience Project in Southern MidCoast Maine, the Lincoln County Social Resilience Project engaged service providers and community members to learn how they were impacted by the winter storms of 2023–2024 and to identify the challenges and opportunities presented by these storms.

Engagement requires meeting community residents and service providers where they are and the project seeks to learn directly from them. Improving understanding of local experiences provides a place-based

guide to future actions to mitigate the impacts of extreme storm events on community residents experiencing heightened social vulnerability.

In the Lincoln County Social Resilience Project, we used focus groups, interviews, and community outreach events to hear directly from service providers and the community members they serve. Meeting the needs of community members requires understanding the place-based challenges that extreme storm events present. By providing opportunities for local partners to identify opportunities for cross-sector collaborations, communities can build upon the existing strengths in the region to identify actions for addressing the impacts of extreme storm events. This report summarizes impacts, themes, gaps, resources, opportunities, and actions that emerged from Lincoln County Social Resilience Project.

Next Steps

Lincoln County Social Resilience Project has been guided by the leadership of local partners who served as project team members, advisory committee members, and participants in the project. As such, the project itself does not need to continue in order for the work to continue. In early months following the December 2024 Community Leaders' Meeting, these local partners have taken next steps to apply the learnings from the project across the region. These next steps include:

Support of legislation to increase storm preparedness: Lincoln County Regional Planning Commission testified before the Joint Committee on Housing and Economic Development in February 2025 to support LD 1, *An Act to Increase Storm Preparedness for Maine's Communities, Homes, and Infrastructure*. Testimony included a summary of the key takeaways from Lincoln County Social Resilience Project, to emphasize that storm preparedness, response, and recovery actions by the State of Maine must include social infrastructure not just physical infrastructure. The Bill includes creating new initiatives to improve emergency planning and communications; preparing communities and infrastructure for severe weather; reducing long-term storm-related risks and costs; and seeking federal funds and existing fee-based funding to implement natural hazards planning projects.

Convening of Service Providers to Discuss Home Heating Assistance: Given the frigid temperatures of this past winter and the increase in need for home heating assistance, Lincoln County Regional Planning Commission facilitated a conversation with service providers to discuss needs, impacts, and coordination amongst agencies. These conversations are expected to continue in order to prepare for the future.

Lincoln County Hazard Mitigation Plan Update: Lincoln County has begun work on updating its County Hazard Mitigation Plan. Staff from Lincoln County Emergency Management Agency and Lincoln County Regional Planning Commission are working together on this update process. The County is supportive of incorporating key takeaways and proposed action items from the Lincoln County Social Resilience Project into the Hazard Mitigation Plan.

Public Outreach and Engagement: With the release of the Lincoln County Social Resilience Project final report, Lincoln County Regional Planning Commission will work on outreach and engagement around the key takeaways and action items for municipalities, residents, service providers, etc. to continue to gain support for implementation. This likely includes presentations to the County Commissioners, Lincoln County Regional Planning Commission Board, outreach to towns and service providers, updates in Lincoln County Regional Planning Commission newsletters, and outreach to local Emergency Management Agencies.

Community Resilience Partnership Regional Coordinator: With funding from the State’s multi-million dollar NOAA Coastal Resilience Regional Challenge award, Lincoln County Regional Planning Commission will continue to serve as a Regional Coordinator in the State’s Community Resilience Partnership through 2029. Lincoln County Regional Planning Commission staff plan to incorporate Lincoln County Social Resilience Project implementation as part of their Regional Coordinator work. This includes bringing in an intern for the summer of 2025 to help staff plan and prioritize proposed action items.

About the Social Resilience Project

The Social Resilience Project works to strengthen Lincoln County by helping to build stronger connections between community members and decision-makers in key sectors involved in preparing for, responding to, and recovering from emergencies. Led by the Lincoln County Regional Planning Commission, Maine Sea Grant, Bowdoin College, Blue Sky Planning Solutions, and Resilient Communities, the project collaborates with service providers from across Lincoln County, including: Lincoln County Emergency Management Agency, Lincoln County Sheriff’s Office, Maine Coast Fishermen’s Association, Midcoast Community Action, Midcoast Conservancy, Town of Newcastle, Waldoboro Business Association, and Central Lincoln County YMCA Community Navigation Program.

Appendices

Appendix A: Impacts Table

Summary of Impacts, Themes, Gaps, Resources, and Opportunities

The table below summarizes what we learned from the focus groups, interviews, and community dinner conversations conducted as part of the Lincoln County Social Resilience Project. The table was shared with community leaders in advance of the *Learning from last year's storms: Coordinating actions we can take to prepare* workshop.

IMPACT: Primary impacts of the 2023 - 2024 winter storms as reported by community members and community service providers.

KEY THEME: Specific ways community members were affected by the identified impacts, with a focus on those at heightened risk.

IDENTIFIED GAPS: Areas where community members and service providers noted the absence of resources needed to address the identified impacts.

EXISTING RESOURCES: Resources identified by community members and service providers as available and potentially useful in addressing the identified impacts.

POTENTIAL OPPORTUNITIES: Actions suggested by community members and service providers to address the identified impacts.

IMPACT	KEY THEME	IDENTIFIED GAPS	EXISTING RESOURCES	POTENTIAL OPPORTUNITIES
1. Power Outages	Extended power outages disrupt essential functions like heating, cooking, water access, and medical device use, particularly for older residents and those with health issues.	Limited access to functioning generators Difficulties repairing/replacing backup systems Limited heating options for older homes	Generators Wood stoves Neighbors assisting with backup systems	Expand generator lending programs Enhance funding for wood stove installation and maintenance
2. Food Insecurity	Frequent outages result in food spoilage, with low-income and fixed-income households struggling to replace perishable items.	Difficulty replacing spoiled food Limited access to food pantries during storms Stigma in accessing food resources	Food pantries; Community refrigerators Sharing tables (e.g., Healthy Lincoln County)	Increase community food-sharing programs Support local food production to reduce dependency on supply chains

IMPACT	KEY THEME	IDENTIFIED GAPS	EXISTING RESOURCES	POTENTIAL OPPORTUNITIES
3. Communication Gaps	Power and internet outages hinder information access, leaving vulnerable community members reliant on neighbors and landlines.	Inconsistent information sharing due to lack of centralized communication system Power outages disrupt communication Residents without cell phones or internet face challenges accessing updates	Local Facebook pages Code Red opt-in alerts CMP updates Local/family networks	Create centralized communication systems Develop opt-in communication systems for updates and preparedness Improve outreach about existing communication pathways Provide real-time updates on storm impacts and resources Create neighborhood-based support teams
4. Challenges with Accessing Resources	Inaccessible roads limit access to food, supplies and warming shelters.	Inaccessible private roads due to flood/wood debris Limited transportation to food, supplies, and warming shelters	Mutual aid agreements for clearing roads Neighbors helping neighbors Warming shelters Services provided by social service agencies	Develop emergency transportation solutions Extend plowing services to private roads Develop volunteer network to help with road and driveway clearing
5. Physical and Mental Health and Safety	Power outages and blocked roads prevent access to needed emergency services and information, threatening community members' physical and mental health and safety in the short and long term.	Low shelter utilization due to pets and safety concerns Lack of support for medical devices during power outages Mental health impacts caused by traumatic events	Emergency shelters Assistance from neighbors Regional mental health services	Offer pet-friendly shelters Provide proactive prescription and medical device support Develop town-based lists of residents using medical devices that require power

IMPACT	KEY THEME	IDENTIFIED GAPS	EXISTING RESOURCES	POTENTIAL OPPORTUNITIES
6. Economic and Educational Disruptions	Occurrence of multiple storm events in short time periods resulted in the vulnerability of community members who have not generally been at risk in the past.	<p>Loss of income and childcare due to work and school closures</p> <p>Food insecurity and education disruptions for children</p> <p>Impacts to communities and businesses due to prolonged infrastructure damage and power loss</p>	Regional aid for road clearing	<p>Restructure, simplify access to disaster aid</p> <p>Develop localized financial assistance initiatives</p>
7. Physical Infrastructure Damage/ Long-Term Economic Recovery	Significant damage to roads and working waterfront infrastructure prompted efforts to access disaster recovery programs, which are often limited in scope and not always timely	<p>Insufficient skilled workers for storm recovery</p> <p>Delays in repairs due to labor shortages</p> <p>Limited access to disaster recovery programs</p>	<p>Local contractors and repair services</p> <p>Networks and resources that towns can mobilize to repair damage</p> <p>Private businesses that are able to assist residents in the short term</p>	<p>Expand trade skill education (e.g., carpentry)</p> <p>Increase availability of contractors</p>
8. Isolated Community Members	Blocked roads and limited access to warming shelters isolated residents, particularly those with mobility challenges, increasing their risk levels.	<p>Lack of organized volunteer networks</p> <p>Reduced connections due to political differences</p> <p>Lack of familiarity and connections for seasonal residents and New Mainers</p>	<p>Neighbors sharing food and resources</p> <p>Volunteer efforts</p>	<p>Establish formal volunteer programs for wellness checks and recovery</p> <p>Facilitate resource-sharing systems</p>

IMPACT	KEY THEME	IDENTIFIED GAPS	EXISTING RESOURCES	POTENTIAL OPPORTUNITIES
9. Community Support Networks and Cross-Sector Collaborations	<p>Neighbors play a crucial role in sharing resources, food, and providing welfare checks, demonstrating the importance of strong local connections.</p> <p>Proactive planning, better access to resources, and enhanced cross-sector collaboration are vital for addressing the multifaceted impacts of storms.</p>	<p>Coordination challenges between municipalities</p> <p>Differences in town capacities for storm response</p>	<p>Mutual aid agreements</p> <p>Cross-sector collaboration (e.g., emergency management and social services)</p>	<p>Foster partnerships for resource sharing (e.g., grant writing)</p> <p>Build resilient infrastructure</p> <p>Expand and enhance volunteer networks for storm recovery and response</p>

Appendix B: Actions by Sectoral Role chart

STRATEGY 1: Develop and Expand Volunteer Network and Training Resources	
ACTION ITEM	SECTOR LEAD
1A. Train volunteers in mitigation, preparedness, and planning, providing CEUs.	Emergency Management
1B. Establish emergency roles and responsibilities for volunteers in advance.	Emergency Management
1C. Mobilize and coordinate volunteers for tasks like food distribution, outreach, and storm response.	Social Services
1D. Activate volunteer trail crews for clearing debris from roads and driveways.	Conservation
1E. Designate volunteers to serve as on the ground condition spotters who pass along observations to service providers.	Business
1F. Need for increased availability and participation in training programs for the trades to increase the regional network of tradespeople.	Business
1G. Partner with contractors through service agreements to ensure transportation and road clearance solutions are available.	Municipalities
STRATEGY 2: Develop a Diversified, Centralized Communication System	
ACTION ITEM	SECTOR LEAD
2A. Build and manage a centralized, multimodal communication system for emergency updates.	Emergency Management
2B. Use public radio for disseminating information on resources at specific times during emergencies.	Emergency Management
2C. Distribute communication materials and updates to underserved populations through their networks.	Social Services
2D. Chamber role in communications and info sharing with businesses – newsletter, social media topic pages for storm response and relief.	Business
2E. Businesses indicated that Central Maine Power is very good at keeping information up to date and they work hard to respond.	Business
2F. Chambers of Commerce could help to get information out about recovery successes to reassure visitors and keep visitors coming back to Maine.	Business
2G. Create or activate local alert systems, such as call trees and neighbor-to-neighbor phone networks.	Municipalities

STRATEGY 3: Know and Support Vulnerable Community Members	
ACTION ITEM	SECTOR LEAD
3A. Map community blocks and create an inventory of at-risk individuals for wellness checks.	Emergency Management
3B. Collaborate with local fire departments and Central Maine Power to support individuals dependent on medical devices during outages.	Emergency Management
3C. Provide information as part of first response.	Emergency Management
3D. Connect vulnerable residents to emergency food resources, shelters, and essential supplies.	Social Services
3E. Note the unique needs of natural resource industry businesses, their employees and families – fishing and working waterfront-dependent businesses in particular.	Business
3F. Use police and town departments’ morning call-in lists to check on vulnerable residents.	Municipalities
3G. Promote and redistribute Red/Green window display cards for easy emergency status identification.	Municipalities
STRATEGY 4: Education on Storm Preparedness During Non-Emergencies	
ACTION ITEM	SECTOR LEAD
4A. Partners with schools to teach children about preparing their homes for power outages.	Emergency Management
4B. Provide public education on safety and maintenance of alternative heat sources like wood stoves.	Emergency Management
4C. Host educational workshops on emergency preparedness and distribute storm preparation materials.	Social Services
4D. Develop questionnaires at town offices to gather information about household preparedness (e.g., backup heat sources, power prioritization needs).	Municipalities
STRATEGY 5: Expand Backup Generator and Battery Lending Programs	
ACTION ITEM	SECTOR LEAD
5A. Support pilot programs like Alna’s LifePO4 battery lending initiative for food-vulnerable residents.	Emergency Management
5B. Act as distribution hubs for backup batteries and generators to residents in need.	Social Services
5C. Install battery storage paired with solar installations at facilities like Coastal Rivers Conservation Trust to provide community resources.	Conservation
5D. Create and maintain lists of households with backup generators.	Municipalities

STRATEGY 6: Promote, Expand, and Embrace Warming Shelters	
ACTION ITEM	SECTOR LEAD
6A. Promote existing facilities as warming shelters and provide food and other support during emergencies.	Social Services
6B. Use facilities like those managed by conservation trusts as shelters for phone recharging, warming, or cooling.	Conservation
6C. Work in conjunction with social services agencies and with Central Maine Power to identify optimal shelter locations near three-phase power and away from the ends of circuits.	Municipalities
STRATEGY 7: Expand Neighbor-to-Neighbor Support Networks	
ACTION ITEM	SECTOR LEAD
7A. Promote campaigns like <i>Know Your Neighbors</i> to strengthen local networks.	Emergency Management
7B. Facilitate neighbor-to-neighbor support by encouraging community collaboration through their programs.	Social Services
7C. Develop local neighborhood-level emergency plans through Homeowners Associations' or by street.	Municipalities
STRATEGY 8: Develop Strategies for Long-Term Recovery	
ACTION ITEM	SECTOR LEAD
8A. Provide ongoing food and material support to residents recovering from storm impacts.	Social Services
8B. Need to increase the network of tradespeople in the region to work in recovery and rebuilding.	Business
8C. Secure long-term grants for recovery projects in collaboration with Lincoln County Regional Planning Commission.	Municipalities
8D. Advocate for local emergency funds to address time-sensitive recovery needs.	Municipalities
8E. House external contractors in local community centers or summer camps during recovery periods.	Municipalities
STRATEGY 9: Identify and Expand Local Resources	
ACTION ITEM	SECTOR LEAD
9A. Centralize information about local assets, including tractors, chainsaws, and generators.	Emergency Management
9B. Act as hubs for resource distribution, ensuring community members have access to food and essential supplies.	Social Services
9C. Partner with civic groups to identify and track local resources, like food pantries and emergency shelters.	Municipalities

STRATEGY 10: Expand Food Sharing Tables and Community Refrigerators	
ACTION ITEM	SECTOR LEAD
10A. Facilitate the expansion of community refrigerators and food sharing tables.	Emergency Management
10B. Provide and manage food-sharing programs, including refrigerators and emergency food boxes.	Social Services
10C. Support initiatives like Veggies to Table, which supply fresh produce to community food-sharing programs.	Conservation
10D. Access community grants to expand food-sharing tables and refrigerators in areas prone to flooding or food insecurity.	Municipalities

Appendix C: Post-Survey Question Responses

In response to the post-survey question *How can we build resilience in the region?* participants provided the following responses:

“Making a central regional resource will be difficult, and addressing how to reach the individual year-round residents should be a focus for these strategies.”

“It does not have to be so complicated and sometimes there seems to be many duplicate services/providers.”

“Community involvement. Need town leadership to be more involved with planning. Having people know what is out there for support and how they can help.”

“Education about how to hunker down during and immediately after storms is crucial.”

“Building or ensuring strong neighborhood networks to make sure all are heard and all are informed.”

“Gathering groups together and making people aware of who and what is out there makes a huge impact.”

“There are so many aspects of social resilience in place that I didn’t know about, and collaboration is key!”

“Many communities are thinking similarly. I believe work at this level is important, but we also need to work together across counties and throughout the state.”

“That this kind of thinking is happening before the event begins and that communities are trying to find ways to get through a period without just pointing a finger.”

“There are already strong ties and informal connections. Sometimes something works well because it IS informal (thinking about the legal hoops folks have to jump through to establish formal warming centers etc.). But these may be good starting points to build off of for better organization and inclusivity.”

“The key takeaway I had was that our neighbor-to-neighbor communities appear to be the most important resource in responding to immediate needs during events.”

“We need to learn from one another, both what worked and what didn’t.”

“Systems level support and planning is needed on both the short- and long-term scales.”

“This was a great experience!”

“Partnerships and planning.”

“We don’t implement what we don’t have knowledge about.

More networking is key.

Collaboration and not duplicating services has been key even without Storm threats.”

“One key take away is the robust interest

in and focus on collaborative efforts and networked approaches to support communication and on the ground needs.”

“My key takeaway is that action on climate resiliency really needs to ramp up.

Many communities & services seem to wait for climate disasters to happen before they act to adapt—this isn’t to be critical of towns/service providers, but to highlight barriers to action.

Towns & services need to be provided with more resources to foster resilience planning AND, most importantly, resiliency actions.”

“My key takeaway was the need for greater communication plans.

Everything gets lost once we lose power, so how do we continue communicating without computers or cell phones? How can we take measures to protect the most vulnerable in our towns once power is lost?

Those are the questions that stuck with me.”

“The need for formal planning including communications and MOUs.”

“Work should occur outside of storm events so we’re better prepared/coordinated when a storm or other event occurs.”

“The biggest takeaway is that many organizations don’t rationally prioritize the issues affecting their communities during and after large storms.”

“Prepare, Prepare, and Prepare. It is not if, but when!”

“Communication is key and understanding what all the different agencies and organizations are providing.”

“Many don’t know the resources available to them.”

APPENDIX F

COUNTYWIDE AND MUNICIPAL BASE
MAPS



APPENDIX G

ADOPTED RESOLUTIONS



Lincoln County Hazard Mitigation Plan - 2026 Update

PREREQUISITES

RESOLUTION

Whereas, natural and man-made disasters may occur at any time, we recognize that to lessen the impacts of these disasters we will save resources, property, and lives in Lincoln County;

And whereas the creation of a multi-jurisdictional Hazard Mitigation Plan is necessary for the development of a risk assessment and effective mitigation strategy;

And whereas, this multi-jurisdictional county of 18 towns, one plantation and a portion of Maine's Unorganized Territory is committed to the mitigation goals and measures as presented in this plan;

Therefore the Boards of Selectmen of the incorporated Towns and one Plantation hereby adopt the Lincoln County Hazard Mitigation Plan – 2026 Update; and

Therefore, the Lincoln County Commissioners, acting on behalf of the county and its unorganized territory hereby adopt the Lincoln County Hazard Mitigation Plan – 2026 Update.

AUTHORIZING SIGNATURES

Commissioners, Select Board, or Assessors for the City/Town of _____, Maine

Print name	Signature	Title	Date
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

City/Town Office Address: _____

Contact person _____

