

Appendix A

Local Hazard Mitigation Plan Team



Town of Acton HMP Update

Kickoff Meeting

February 27, 2024



Agenda



Introduction & Overview



Hazard Mitigation



Local Planning Workgroup



Workshop: Recent Events



Workshop: Goals & Objectives



Data Collection: Worksheet Overview



Conclusion & Next Steps



Introductions

Would you please...

- 1) Briefly introduce yourself & your role

- 2) Recent or current initiatives tied to natural hazards



Hazard Mitigation

“Hazard mitigation planning reduces loss of life & property by minimizing the impact of disasters.”

Federal Emergency Management Agency





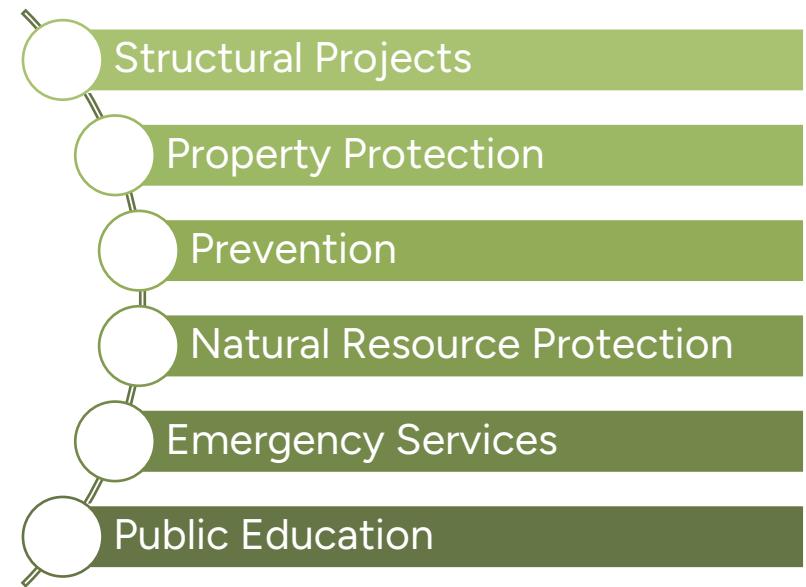
What are talking about when we say “hazard”? What is mitigation?

Hazard

- An extreme ***natural*** event that poses a risk to people, infrastructure, & resources
- Natural Hazards include:
 - Flooding
 - Storms
 - Earthquakes
 - Brushfires
 - Hurricanes
 - Sea Level Rise

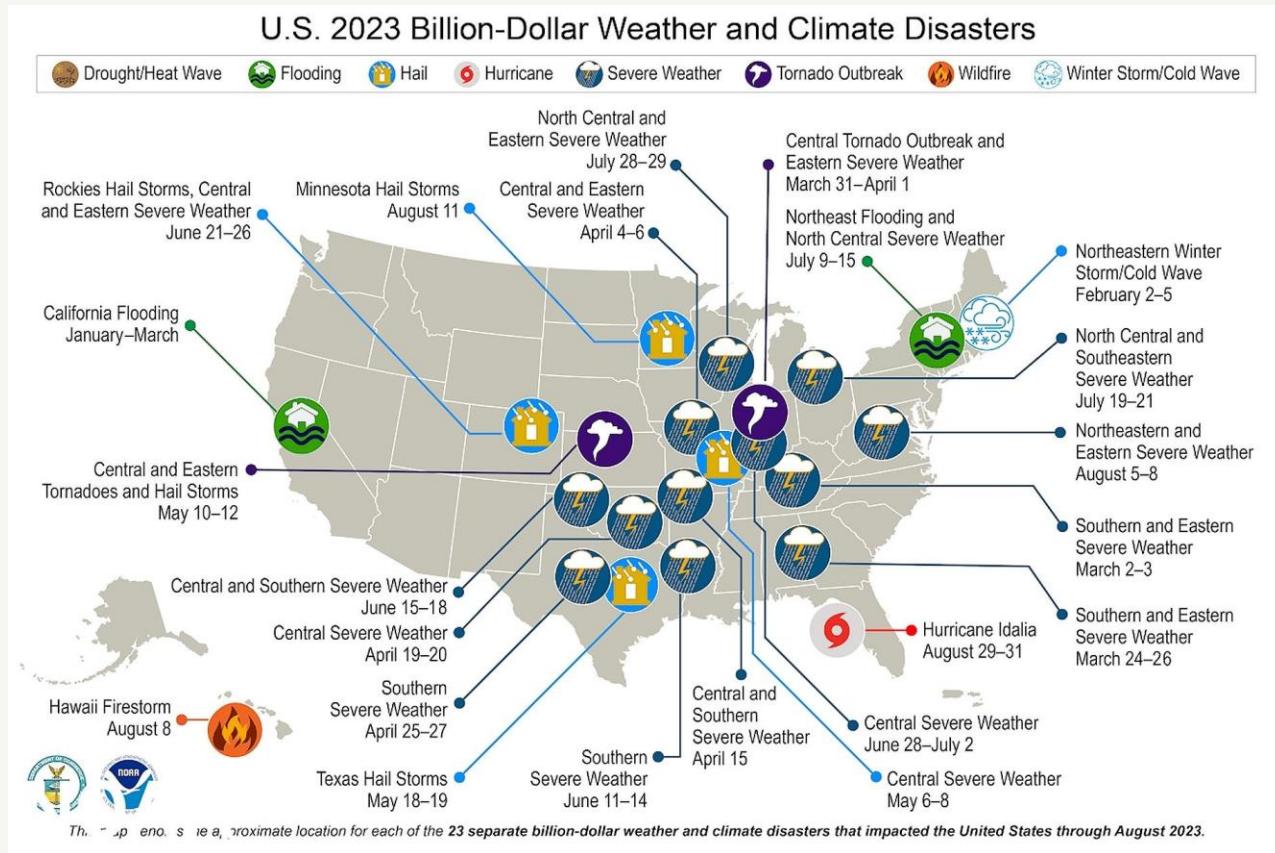
Mitigation

Six Categories of Mitigation





Natural Hazards





What is Mitigation?



STRUCTURAL PROJECTS

- Replace Bridges & Culverts
- Remove In-Stream Dams
- Remove Obstructions
- Upstream Detention
- Install Stormwater Systems
- Create Floodways
- Enlarge Channels
- Reduce Flow Resistance
- Install Levees
- Install Flood Walls

FLOOD MITIGATION

PROPERTY PROTECTION

- Wet Floodproofing
- Dry Floodproofing
- Elevate Buildings
- Relocate Buildings
- Secure Utilities
- Anchor Floatables
- Remove Hazardous Materials
- Re-Grade Properties
- Purchase Flood Insurance
- Join the Community Rating System (CRS)



PREVENTION

- Modify Zoning
- Modify POCD
- Stormwater Management Regulations
- Increase Flood Damage Prevention Standards
- Freeboard
- Low Impact Development
- Minimize Impervious Cover



What is Mitigation?

FLOOD MITIGATION

NATURAL RESOURCES

- Acquire or Preserve Floodplain Land
- Acquire & Remove Structures from Floodplains & Convert to Open Space
- Acquire or Preserve Other Lands
- Increase Wetland Storage
- Re-Connect Streams to Floodplains

EMERGENCY SERVICES

- Build Local Capacities to Respond
- Move Critical Facilities from Flood Risk Areas
- Establish Emergency Shelters
- Elevate Roads or Bridges to Ensure Egress
- Develop Community Evacuation Plans
- Develop Site-Specific Evacuation Plans
- Establish Satellite Facilities in Areas Subject to Isolation

PUBLIC EDUCATION

- Newsletters
- Community Meetings
- Information Kiosks
- Web Site with Flood Risk Maps
- Education of Municipal Staff
- Leverage State & FEMA Education Programs
- Establish a Standing Committee or Board to Oversee Outreach





Hazard Mitigation Planning Process



Identify natural hazards,
risks, & vulnerabilities



Develop long-term
strategies to protect people
& property





Overview of HMP Sections

1. Introduction

Requirements for municipalities under the Federal Disaster Mitigation Act to maintain eligibility for FEMA funding

2. Planning Process & Public Participation

Planning process focusing on local needs & priorities with public participation

3. Risk Assessment

Analyzes potential natural hazards in Acton, relationship to land use & infrastructure, & estimates potential damages

4. Hazard Mitigation Goals

Lists hazard mitigation goals aimed at reducing risks & damages from natural hazards

5. Existing Mitigation Measures

Details current hazard mitigation measures in place

6. Mitigation Measures Identified Previous Plan

Review & assess progress on mitigation measures identified in previous plan

7. Hazard Mitigation Strategies

Outlines strategies for mitigating hazards identified in the community

8. Plan Adoption & Maintenance

Covers the procedures for formal adoption & ongoing maintenance of the plan



Local Planning Workgroup





Local Planning Workgroup

- Purpose & Responsibilities of the Workgroup
- Identifying the Workgroup mission:



Who does the Workgroup serve?

What does the Workgroup do?

Why? How?

Who is missing from the table?



Workshop: Recent Events



Workshop: Recent Events

Prompts

Impact.

- What was the impact to department or operations?
- What was the community impact?

Mitigation.

- Have there been improvements since the event?
- What gaps or needs still need to be addressed?

Prioritization.

- Identify mitigation actions
- Prioritize suggested actions

Activity

Recent Events:

- December 2023 Flood
- September 8, 2023, Thunderstorms
- July 2023 Heatwave
- Other Hazards of Concern

1. Small group discussions (~10 minutes)
2. Mitigation strategies written on cards & placed on board in prioritized order
3. Full group discussion & share out
4. Mitigation actions identified by each small group combined on one board



Workshop: Goals & Objectives





Review Previous Goals & Identify New Goals

- 1) Prevent & reduce loss of life, injury, public health impacts, & property damage from major hazards.
- 2) Identify & seek funding to mitigate or eliminate each known significant flood hazard area.
- 3) Integrate hazard mitigation planning in all relevant municipal departments, committees, & boards.
- 4) Prevent & reduce the damage to public infrastructure resulting from all hazards.
- 5) Encourage businesses, institutions, non-profits to work with Town to develop & implement HMP.
- 6) Work with surrounding communities, state, regional, & federal agencies on cooperation & solutions.
- 7) Ensure development meets fed, state, & local standards for preventing & reducing hazard impacts.
- 8) Take advantage of resources from FEMA & MEMA to educate staff & public about hazard mitigation.
- 9) Consider impacts of future climate change & incorporate sustainability & resiliency in HMP.



Data Collection: Worksheet Overview





Targeted Data Collection



Critical Facilities



Development Trends



New Plans & Reports



New Regulations



Vulnerable
Populations



Open Discussion

Any remaining comments, thoughts, or questions?



Conclusion & Next Steps

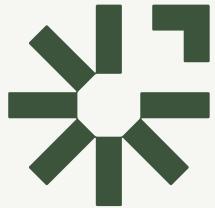




Conclusion & Next Steps

- Set dates for public outreach events
 - Engagement 1: March/April
 - Engagement 2: May/June
- SLR will compile information & provide & update Data Collection worksheet for review
- SLR will translate the data into a Draft Plan Update for MEMA submission by June/July





Making
Sustainability
Happen

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Acton Hazard Mitigation Plan Update Workshop

Date: February 28, 2024 **Time:** 10:00 – 12:00 **Location:** 472 Main St, Rm #204 Acton, MA

Client: Town of Acton **SLR Project No.:** 149.14458.00007

		SLR	Town of Acton
Attendees	<ul style="list-style-type: none"> • Noah Slovin • Hailey Brim • Elizabeth McCarthy 	<ul style="list-style-type: none"> • Andrea Becerra • Corey York • Alex Wahlstrom • Matthew Mostoller • Mike Gendron • Alyssa Nichol • Anita Arnum 	<ul style="list-style-type: none"> • Ed Mullen • Kristen Guchard • Kim Kastens • Douglas Sturniolo • Peter Berry • KJ Heather/ Julie Pierce • Lauren West • Matt Cross

Introduction and Overview

Andrea Becerra and Corey York (Town of Acton) welcomed meeting participants and introduced themselves. They discussed meeting objectives and prompted meeting participants to introduce themselves including name, role, and recent or current initiative tied to natural hazards.

Name / Role	Connection to Hazard Mitigation
Mike Gendron, Conservation Manager	53 River St Dam Removal
Alex Wahlstrom, Environmental Compliance with Water District	Planning for drought conditions and how it impacts water quality
Matthew Mostoller, Water District	Water resources and infrastructure, emergency response, how do natural hazards play in electrical grid and other dependencies?
Kim Kastens, Green Acton	Started to focus on stormwater, flooding, dam removal
Alyssa Nichol, Select Board, Green Acton Water Committee	Water resource advisory committee Board of health Emails received about claims from hazard damage (sent to board of health) Emails about positive response to hazards

Meeting Minutes



Name / Role	Connection to Hazard Mitigation
Anita Arnum, Fire Chief	Emergency response role to incidents of hazards Brush fires at hazardous waste site Comprehensive EMP for Acton DEP involved in recent clean up
Ed Mullen, Building Commissioner	Hazards in built environment
Kristen Guchard, Zoning Enforcement Officer, Floodplain Manager	Building in flood zone Zoning and planning – looking at ways to incorporate bylaw changes that benefit environment, stormwater, and potential ways to build more sustainably
Lauren West, Environmental analyst Sustainability Office	MVP program
Peter Berry, Associate Member of Green Advisory Board	Studies to determine impact of Dam Failure and how to safely breach the dam and begin process to plan park in its removal
KJ Herther /Julie Pierce, Acton Economic and Community Development Office	Representing local business Try to be a resource for businesses, communications (Acton Business website & Monthly Business Boost Email Newsletter) (KJ) Part of EnergizeActon.org & AB PIP STEM
Laura Ducharme, Community Services Director	Vulnerable population representation
Douglas Sturniolo, Deputy Chief for Police Department	Public safety Response to natural hazards Coordinating and response
Matt Cross, IT and facility maintenance	

Hazard Mitigation

The SLR team explained and defined hazards and mitigation measures, why planning for hazards and climate events are important, what a Hazard Mitigation Plan is and the planning process, and the benefits of Hazard Mitigation Plans including FEMA-funding eligibility.

Local Planning Workgroup

The SLR team explained the purpose of the local planning workgroup. The SLR team prompted the meeting participants to think about what role they play in regard to hazard mitigation planning and who is missing from the workgroup. Meeting participants filled out cards with information with information and discussed.

Responses to prompts are summarized below.

What is your role in Hazard Mitigation?

- **Outreach:** Develop strategies to communicate with individuals lacking access to cell phones and computers, and identify and support residents with vulnerabilities (e.g., language barriers, technology barriers, transportation issues, limited financial resources), communication with local businesses.
- **Evacuation Planning:** Plan for the evacuation of individuals without cars or with disabilities.
- **Policy and Planning:** Engage in plan review, building permits, and regulation through the building department and floodplain manager roles to ensure resilience and compliance with environmental standards.
- **Adaptation and Mitigation:** Plan for adaptation and mitigation to reduce climate change impacts, including zoning initiatives for floodplain management and stormwater management standards.
- **Infrastructure Management:** Focus on water resource issues, including supply, quality, and infrastructure management to support public health and safety. Address infrastructure water resources concerns and manage emergency responses.
- **Environmental Protection:** Attend to the impact of hazard mitigation processes on ecosystems and wildlife. Protect open spaces and enhance flooding resilience.
- **Emergency Services:** Coordinate police department activities for public safety, protect life and property, and manage emergency responses. The DPW director focuses on the upkeep of infrastructure and coordination with first responders.
- **Resource Allocation:** Manage meetings to ensure inclusive participation, connect vulnerable populations with resources, and prevent worsening climate conditions.
- **Public Awareness:** Educate the public on climate hazards, share awareness and resources, and communicate with businesses about resource sharing and grant opportunities.
- **Inspections and Reviews:** Conduct inspections across fire, building, health, and planning departments to ensure safety and compliance.
- **Energy and Climate Work:** The Energy Workgroup looks at different climate control options and recommends actions to the Select Board. Work on future development to prevent and reduce impacts of natural hazards.
- **Protection of Critical Assets:** Protect Acton Housing Authority properties and ensure access to and protection of critical facilities.

Who needs to be at the table?

- **Town Management:** Town manager, Select board, Highway department, Water department, School department, Planning department heads and consultants, Health department, Engineering (Qin Pang), Public health (social workers), Economic Development Office, and All staff (for end-of-process involvement to ensure familiarity and buy-in),
- **Emergency Services:** Fire department, Police department (including Department chief of policy, Lieutenant Ed Lawton), EMS, Emergency management.
- **Regulatory and Advisory Boards:** Board of Health (noted multiple times, indicating high importance), Conservation Commission, Commission on Disabilities, DEI office (Diversity, Equity, Inclusion), Open Space Committee (Karen O'Neil), Acton Housing Authority (Peter Berry, Commissioner), Planning Board.
- **Schools:** General representation, School District representative.
- **Conservation and Environmental Groups:** Acton Conservation Trust, Concord Water, Superfund representatives, Energize Acton (Andrea Becerra), Regional environmental groups like OARS, Environmental Justice (EJ) community members as defined by the state (including populations in North Acton, seniors, and youth).
- **Community-Based Organizations:** Housing and Climate Justice for Acton, Advocate for local businesses, Organizations working with vulnerable populations at risk in natural hazards, Council on Aging and Senior Services, Acton Collaboration and other community groups, Cultural groups, AB United Way, United Wall. Housing group for tenants. Council on Aging (COA), potentially referring to the broader representation of senior services.
- **Educational Organizations:** AB PIP STEM – ActonPip.org, Public outreach – resiliency initiatives.
- **Developers.**
- **Community members**

The SLR team then discussed how a mission statement is important for guiding the workgroup's vision for the hazard mitigation plan update. They then shared sample mission statements from Massachusetts State Hazard Mitigation Plan and sample mission statements for participants to consider.

Recent Events

Meeting participants were split into 3 small groups to discuss recent hazardous weather events in Acton including flooding in December 2023, A microburst event in September 8th, 2023 and a heatwave in July 2023.

Challenges

While discussing recent events, meeting participants highlighted different challenges that Acton faces while trying to respond to different hazards.

Power

- **Microburst Event (Sept 9, 2023):** Temporary generator placed outside a building due to an interior generator failure. Eversource's response helped address water supply district electric issues, although their response came last due to the district's existing generator.

- **Vulnerable Populations:** Concerns about the impact of power outages on vulnerable populations, especially during heatwaves. Limited shelter space and the need for identifying shelter capabilities highlighted.
- **Rolling Blackouts (2022 Heatwave):** Eversource installed generators due to a local substation failure. Concerns about reliance on a single power source and emphasis on diversifying with sustainable, green energy.
- **General Concerns:** Built environment insulation requirements to reduce energy loss, the need for staffing for the police department, and the importance of strengthening the power grid. Aging infrastructure noted, with a preference for external generators for easier service and maintenance.

Water

- **Water Supply Issues:** North Acton facility's consistent electricity issues. The facility is natural gas-powered. Concerns about water supply and infrastructure adequacy for hydrant installation, with a goal to adequately treat sewage.
- **Flood Event (December):** Requests for sandbags from the Fire Department, inundation of water supply calls from residents to pump out basements (clarified as rainstorm water, not potable). Portable pumps availability noted.

Natural Resources

- **Zoning:** Developers are moving closer to wetlands, risking altering the natural floodplain aspect and risking safety of town population

Stormwater Management

- Washout of storage tank access roads on hills, creating problems for stormwater infrastructure. An issue with an undersized culvert at Mass Ave was identified, pointing to the need for infrastructure evaluation and enhancement.
- Residents complain about neighbors "flooding."

Capacity Issues

- During the microburst event, significant coordination through the EM center was highlighted, with overwhelmed dispatch calls but positive responses to communication and coordination involving police, fire, facilities, town manager, DPW.
- 5 years ago after severe storm, trees were down and neighborhoods were in accessible because DPW didn't have the capacity/staff to remove.
- Staffing for multiple critical departments: Emergency Management, DPW, etc.
- Shelter Capacity Issues

Town-wide

- Town has declared climate emergency – climate resilience and sustainability.
- Aging infrastructure – generators in buildings are often old (easier to service and maintain if they are outside)

Actions

Participants discussed different steps to take considering the challenges and gaps the town faced during the different weather events.

Infrastructure Improvement and Resilience

- **Strengthen Power Grid:** Address aging infrastructure, replace and service old indoor generators with more accessible and maintainable options.
- **Stormwater Management:** Create a Stormwater Authority to manage and improve stormwater infrastructure, considering the review and possible revision of zoning regulations related to wetland development.

Emergency Preparedness and Response

- **Heat Preparedness Plan:** Develop a plan focusing on vulnerable populations, ensuring shelter spaces are equipped with air conditioning to counteract the effects of heatwaves and rolling blackouts.
- **Emergency Management Staffing:** Enhance staffing levels within emergency management to improve response capabilities and resilience planning.
- **Community Emergency Communication:** Increase efforts to ensure timely and effective communication with the community (residents & businesses) during emergencies.

Shelter and Community Safety

- **Identifying Shelter Space:** Tackle current challenges by identifying additional shelter spaces, ensuring they are equipped with necessary amenities like generators and showers.

Environmental and Heat Mitigation

- **Heat Pumps:** Consider the implementation of heat pumps as a strategy for heat mitigation, contributing to energy efficiency and climate resilience.

Policy, Communication, and Funding

- **Improve Communication:** Enhance communication strategies with businesses and community members, clarifying responsibilities for reporting and mitigating emergencies.
- **Grant Information and Access:** Streamline the process for accessing grant information, clarifying eligibility, application priorities, and timelines to ensure timely funding acquisition.
- **Urgency in Action:** Emphasize the need to move quickly in securing funding and implementing mitigation strategies to prevent delays in response to emerging challenges.

Goals and Objectives

SLR presented a review of the nine goals from the 2018 Hazard Mitigation Plan to meeting participants to identify new goals of the Hazard Mitigation Plan. Meeting participants shared their thoughts on each goal by walking around to different boards and posting using sticky notes. Things participants had to consider was the role their department plays in achieving the goal, existing actions/initiatives related to goal, new objectives or actions suggested for goal, and new objectives or actions suggested for goal.

Goals and responses are below.

Meeting Minutes



Goal	Participant Comment
Goal #1: Prevent & reduce loss of life, injury, public health impacts, & property damage from major hazards.	<ul style="list-style-type: none"> • MA HMP mission statement includes "protect natural resources" this should also be in Acton goal #1 • Add "...and human caused to "natural hazards" • Incorporate DEI AND Equity lens in this work • Add: reduce interruption of services, utilities, normal business functions, town services • Town staff debriefing to plan ahead • Socioeconomic impacts (inability to workshop this)
Goal #2: Identify & seek funding to mitigate or eliminate each known significant flood hazard area.	<ul style="list-style-type: none"> • Town staff are good at identifying and applying for grants • Coordinate with culvert and stormwater management work with town, MassDOT, private and public property owners. • Add: Identify, prioritize, and seek funding. • Grant writer • Acton doing well on this • Way to reference all water resource impacts? Including drought, water quality degradation, ground water recharge etc?
Goal #3: Integrate hazard mitigation planning in all relevant municipal departments, committees, & boards.	<ul style="list-style-type: none"> • These efforts should align with municipal; vulnerability preparedness planning, emergency management& planning, and other relevant planning so more cohesion • Include at least annual engagement in goal language • Do not repeat "integral"/"integrate" • Integrate into budget process/goal setting
Goal #4: Prevent & reduce the damage to public infrastructure resulting from all hazards.	<ul style="list-style-type: none"> • Consider groundwater resources as part of public infrastructure • Great • How? Plan for, apply for funds and build with resilience • Team effort, funding, leverage GIS • And enhance the ability of services to, be resotred, maintained during events

Meeting Minutes



Goal	Participant Comment
Goal #5: Encourage businesses, institutions, non-profits to work with Town to develop & implement HMP.	<ul style="list-style-type: none"> Include the general population of Acton and neighbors in goal Please include the residents of Acton Ensure vulnerable populations are included Could we add developers to this group? Maybe local civil engineering firms Include Acton Housing Authority Include Acton Conservation Trust Coord outreach: mailing list, contact information. Online, Discussions targeted message
Goal #6: Work with surrounding communities, state, regional, & federal agencies on cooperation & solutions.	<ul style="list-style-type: none"> Coord periodic working group around town stuff
Goal #7: Ensure development meets fed, state, & local standards for preventing & reducing hazard impacts.	<ul style="list-style-type: none"> I think we could take this a step further – to encourage new development standards like Natural Resource Protection zoning (cluster development) to reduce impervious surface coverage Periodic working group meeting. Land Use/DPW/Community groups etc. “Meets and exceeds whenever feasible” Maybe identify “development” or “standards” building, infrastructure, laws, regulations, etc. Go beyond standard for future mitigation
Goal #8: Take advantage of resources from FEMA & MEMA to educate staff & public about hazard mitigation.	<ul style="list-style-type: none"> Use Acton TV for public education Identify other funding sources that may apply i.e MVP grants Edit to include: resources from FEMA, MEMA, and other state and federal grants about hazard mitigation and climate resilience Grant writer/ Outreach coord Utilize social media Take Advantage how? Time wise, how do we set & use funds in time?

Goal	Participant Comment
Goal #9: Consider impacts of future climate change & incorporate sustainability & resiliency in HMP.	<ul style="list-style-type: none">• New buildings are carbon free, but adverse effect on emergency response?• Build stormwater management program/funding• Current and future climate change• Remove words "potential" and "future" as these impacts are here now

Data Collection Worksheet and Final Comments

Data Collection Worksheet & Final Comments SLR provided a rapid overview of the data collection worksheet, emphasizing targeted data categories such as critical facilities, development trends, new plans/reports, regulations, and vulnerable populations. They concluded with an open discussion for final comments and outlined the subsequent stages, including public outreach through a town-facilitated event or survey, and committed to compiling the gathered data into a draft plan update for further review

Acton MA 2024 HMP Data Collection Worksheet

Client: Town of Acton, MA

SLR Project No.: 149.14458.00007

Data Collection: Summary of Needs

Data Needs

Community Profile

- Development and redevelopment trends
- Plans and Regulations
- Critical Facilities, Shelters, Emergency Power

Specific Hazards

- For Each Hazard:
 - Flooding and Dams
 - Brushfires
 - Extreme Temperature
 - Drought Condition
 - Winter storms
 - Geologic Hazards
 - Wind-related Hazards
 - Multi-Hazards
- Impacts of Recent Events, Loss Estimates
- Capabilities
- Areas of Risk and Vulnerabilities
- Status of Previous Actions
- New Actions
 - What can be done with **current** budgets?
 - What would be done if funding was not a concern?
 - Short-term, measurable, achievable

1. Community Profile

1.4 – Status of Developments and Developments in Progress:

Name/Location	Status	Use/Units/Size	Vulnerabilities	Notes
East Acton Village 7-29 Great Rd	Single family is construction; a portion of the commercial development has not be completed	12 single family 5 commercial		
100 Nagog Park	Construction completed	300,000 sq ft Manufacturing	23.65% in 0.2% Annual Chance	Also added solar to top of parking garage
Powdermill Pl 2-4 Powder Mill Rd		230 units in Acton 40-B, Affordable Housing	9.28% in AE 24.55% Floodway 4.96% 0.2% Annual Chance	Redevelopment; project would restore riverfront and provide river walk along property
252-256 Main St		Vacant building (Kmart) tenant fit out		renovation and minor improvements to parking lot; mixed-use zoning failed in 2016
Kelley's Corner Infrastructure Project	Under construction; estimated completion Fall 2025			Deep sump catch basins being installed to improve drainage system
146 Prospect St	completed	4-unit single-family 40-B		
184 Main St	completed	8 units, 40-B		
Martin St	completed	28 units, 40-B	5.71% in AE 2.39% in 0.2% Annual Chance	
62-68 Harris St	completed	Fire Station		
6 Post Office Sq	completed	12 units, 40-B	0.45% in 0.2% Annual Chance	
429 Great Rd	completed	Car Dealership	12.33% in 0.2% Annual Chance	
178 Great Rd	completed	Car Dealership	2.87% in AE 0.57% in Floodway	
117 Central Street		40 unit, 40-B	1.91% in AE: 0.72% 0.2% Annual Chance	
446 Mass Ave	completed	31 unit, 40-B	Elder and Disabled Populations	
362 Main St	Approved/ Pending sewer permitting	30-unit, 40-B or hotel/restaurant		
46 High Street	Under construction	Standard subdivision – 4 single family homes		
225 Newtown Road	Under construction	Pond View Way Standard subdivision – 2 single family homes		
484-486 Great Road	Under construction	Betty Estates Cluster Dev. 4 single family homes		14.76 acres to remain under conservation restriction
66 Maple Street	completed	1 new single family and renovation of an existing duplex	Portion of property in back AE	

Name/Location	Status	Use/Units/Size	Vulnerabilities	Notes
96 Newtown Road	completed	Dylan Place – 2 single family homes		
22 Elm Street	Under construction	Cluster development – 5 single family homes		5.871 acres of "common land" or open space will remain protected through the cluster dev. decision in private ownership
47 Conant Street	completed	Amanda Lane – standard subdivision 3 single family homes		
3 and 11 Fort Pond Road	Under construction	Standard subdivision 2 new single-family homes (2 existing to remain)	Portion in AE	
74 Main Street	Under construction	Standard subdivision – Hawks Crest – 7 single family homes	Portion in AE	
247 Pope Road	Under construction	Timber Way Standard subdivision – 2 single family		
279&285 Main Street	Completed	Demolition of existing commercial building for a new Bank		
50 Nagog Park	Completed	Demolition of existing building for new 119,00sf warehouse		
1&5 Nagog Park	Demo has begun	Demolition of restaurant and ½ of plaza for car dealership		

Potential Future Developments

352 Main Street	Design Phase	Dog Park		
363 Great Road	Permitted – construction has not commenced	Grandview 40B – 86 units		
40 High Street	Permitting phase	3 additional single family		
9 Quarry Road	Permitted	PCRC amendment – added 3 addition (total 6) single family		

1.5 - Any changes to government structure

1.6 - Plans and Regulations

Plan/Document Name	Year	Status/Relevant Changes (updated, being updated soon, new hazard aspects)
Zoning	2022	<ul style="list-style-type: none"> Flood Plain Overlay District updated at '22 TM to meet FEMA Regulations
	2024	<ul style="list-style-type: none"> Updates to Powder Mill, South Acton and MBTA Communities zoning to be considered for the 2024 TM – considers better stormwater management and aligns with Climate Action Plan Updated GWPD 2023 to include bedrock wells & Maynard's Zone II
Subdivision		
Town Code		
Inland WW Regs		
Open Space Plan	2014-2021	Update in progress, anticipated submission to State this Spring
Comprehensive Community Plan	2012	Inventory is almost complete, next plan update is expected to commence in 2025 pending funding
AWD Master Plan	2018	Update to start in 2024
Emergency Management Plan		

1.7 - Critical Facilities

Facility	Shelter	Power	Changes	FEMA Zone	Other Hazards
Department of Public Works Garage		Natural Gas			
Acton Wastewater Treatment Plant					
Pump Station 1					
Pump Station 2				AE	
Pump Station 3					
Pump Station 4					
Pump Station 5					
Pump Station 6					
Pump Station 7					
Pump Station 8					
Pump Station 9					
Pump Station 10					
School Street Water Pump Station		Propane			
Acton Water District Operations/Admin Campus		Natural Gas			
Assabet 12,2,2A Wells		Diesel			
Assabet 3 Well		Diesel			
Skyline Drive					
Hazelnut Street Ozonation Plant					
Concord Water Pump Station					
North Acton Wastewater Treatment Plant					

Facility	Shelter	Power	Changes	FEMA Zone	Other Hazards
Acorn Park Wastewater Treatment Plant					
Woodvale Wastewater Treatment Plant					
Great Road Condos Wastewater Treatment Plant				0.2%	
Robbins Brook Wastewater Treatment Plant					
Life Care Center Wastewater Treatment Plant					
Yankee Village Wastewater Treatment Plant					
Farmbrook Wastewater Treatment Plant					
Brookside Apts. Wastewater Treatment Plant					
Nagog Hill Water Tower					
Wampus Hill Water Tower					
Flagg Hill Water Tower					
Great Hill Water Tower					
Life Care Center					
Robbins Brook Assisted Living Facility					
Acton Town Hall		Diesel			
Baker-Whitney Oil Company					
Bursaw Gas and Oil					
Concord Oil					
Recreation Department	Yes	55 Audubon Drive Generator			
Windsor Green Apartments					
Audubon Hill Condominiums					
Conant School					
RJ Grey Junior High School					
Acton-Boxborough Regional High School	Yes				
Gates School			Gates & Douglas merged?		
Douglas School			""		
Merriam School					
Acton Public Safety Building		Diesel	2 Public Safety Buildings?		
West Acton Fire Station		Diesel			
Center Acton Fire Station		Diesel			

Facility	Shelter	Power	Changes	FEMA Zone	Other Hazards
South Acton Fire Station		Diesel			
Acton Public Safety Building (Fire Department Headquarters)		Diesel	2 Public Safety Buildings?		
New North Acton fire station at 62 Harris St?					
Infant Toddler Children's Center					
Acton Barn Cooperative Nursery School					
Montessori Country Day School					
Children's World Learning Center					
McCarthy-Towne School					
The Victor School					
Community Notification Center					
Library/IT		Diesel			
Haartz Auto Fabric					
RH Products					
BOC Gases					
Keyspan/Tennessee Gas Regulator Station					
Clapp Wells					Known Flood Area
Whitcomb Well					Known Flood Area
Lawsbrook and Scribner Wells		Hookup Only			Connect to School Street Pumping station under Fort Pond Brook
Christofferson Well		Propane			Known Flood Area
Conant I Well		Hookup Only			
Conant II Wellfield		Natural Gas			
Conant Bedrock Wells		Natural Gas			
Kennedy Wellfield		Natural Gas		AE	Known Flood Area
Marshall Well		Natural Gas		AE	Known Flood Area
Rte 2A Water Pump Station					
Nagog Water Treatment Plant					
Human Services and Senior Center	Yes				
Municipal Properties and Engineering					
Clapp/Whitcomb Water Treatment Plant					Known Flood Area
N. Acton Water Treatment		Natural Gas			Prone to long duration power outages
S. Acton Water Treatment		Diesel			
C. Acton Water Treatment Plant		Natural Gas			
McCarthy Village					
Colbrook High School					

Facility	Shelter	Power	Changes	FEMA Zone	Other Hazards
Cell Towers - Specific locations/concerns					
Grace Superfund Site					
NMI Superfund Site – Treatment plant at 16 Knox Trail Acton					
55+ Housing					
Private Wastewater Treatments - Specific locations/concerns?					
Pine Hill Condominium – 205 Great Road					
Avalon Bay Water Booster Pump Stations					
Solar Arrays					
Red House		Diesel	<i>Is included in Emergency Generator List</i>		
Battery Storage Facility (100 Discovery Way)					
Battery Storage at AB Schools for roof top solar					
Proposed Battery Storage at Twin School					

2. Flooding & Dams

2.1 - Setting/Historic Record

Recent Significant Events	Date	Impact
December Rainstorm	December 22 nd , 2023	Storm dropped 4.1 inches of rain. Flood damage was observed throughout town as well as on Conservation Lands.
Rainstorm	August 8 th , 2023	Flash flooding caused waterlogging of crops at local farm.
January 2024 Rainstorm		Heavy rains and snowmelt led to flooding of low lying areas and washout of access roads to water infrastructure

Dam	Hazard Level	EAP?	Changes	Other Notes
Assabet River Dam	Significant			
Erikson's Grain Mill Dam	Significant			
River Street Dam	?			
Ice House Pond Dam	?			
Robbins Mill Pond Dam	?			
Pencil Factory Dam	?			
Brook Street Dam	?			
Nagog Pond Dam	Significant			
Grassy Pond Brook Dam	?			
Allen Dam	Low			<i>On state list, was not included in previous HMP</i>
Bellows Farm Mill Dam	Low			<i>On state list, was not included in previous HMP</i>

2.2 – Capabilities

Capability	Notes/Changes
Town participates in the NFIP and has adopted the FIRM maps.	Updated in 2022
Ongoing DPW Drainage Improvement Program	
Wetlands Protection Bylaw and Regulations	New regulations for stormwater in jurisdictional area should be coming out soon
Massachusetts Stormwater Policy	
Erosion By-Law	
Floodplain Overlay District	
Subdivision Development Drainage Design Controls	
Site Plan Development Drainage Design Controls	
Reviews and Inspections of New Developments	
Cluster Developments	Same measures being taken as Conservation Residential Community
Conservation Residential Community	This year we embark on the Habitat for All Zoning initiative to increase preservation of natural resources, incentivize more open space and affordable housing

Groundwater Protection Overlay District	
Land Acquisition Efforts: Community Preservation Act	
Land Acquisition: Priority List of Parcels	
Public Education – NPDES Phase II	
Jones Field LID Rain Garden	
Beaver Mitigation	Looking at alternative methods to deal with beaver mitigation (beaver deceivers and mapping activity)
Drainage System Maintenance – Have 12k worth of funding, needs 1 million	
Dams	
DCR dam safety regulations	
Permits required for construction	
The Comprehensive Emergency Management Plan	

2.3 - Vulnerabilities and Risk

- Vulnerable areas along watercourses (buildings, intersections, areas, etc.)

- Private Properties
 - Changes to properties (acquisitions, new constructions) in SFHA

- Repetitive Loss Properties (notes, new RL properties, etc)

- Vulnerable Critical Facilities

2.4 - Actions

Action	Status Capability Completed Carry Forward Drop	Lead Department Department responsible for action	Notes What Happened? If dropping/ incomplete, why?
Land Acquisition/ Protect Open Space: The town will continue to purchase or protect open space to ensure that future development does not increase flooding.	Capability	Building, Conservation, Natural Resources, and Planning Mike Gendron	District Acquired 549 Main Street which provides some inland flooding mitigation, Town acquire CR
Ongoing culvert and drainage upgrades	Carry Forward with Revisions	Public Works	Any specific examples to include in this update?
More frequent maintenance of town-owned drainage facilities	Drop	Public Works	We are grouping this with the previous action
Complete GIS stormwater mapping, prepare for MS4 compliance	Carry Forward	GIS, Planning and Zoning	We have an inventory in line with MS4 compliance
Assess River Street dam, consider partial breach for safety	Complete	Emergency Management, Public Works	Dam was removed in 2023
Complete town-wide dam study – gain information from DCR	Carry Forward	Public Works, Conservation	Public Works has reached out to state agencies to get access to relevant dam data; more work is needed to determine hazard status and environmental implications as well as ownership and parties responsible for mitigating concerns
Assess Erickson's Grain Mill Dam, facilitate consideration of wider breach to reduce risk	Carry Forward	Public Works, Conservation	
Amend Stormwater Bylaw to reflect updated 10-year 24-hour rain data	Completed	Planning and Zoning	Confirm with Qin Rui

- Other Actions Completed (any action completed that may diminish risk. Does not have to intentionally addressed risk.)

- New Actions (can include structural projects, natural resource protection, specific property protection, strengthening of emergency services/response, hazard prevention, education. Can include projects currently underway but incomplete)

Action	Lead Department Department responsible for action	Notes
Seek sustainable funding options and develop a comprehensive program for stormwater management program (culvert and drainage maintenance and upgrades)	Public Works	Not enough funding for culvert and drainage upgrades so expanded on this and turning it into a new action
Specific land acquisition or open space protection projects	Conservation Agent	
New River Street Dam Action	Conservation Agent	

Beaver dam mitigation	Conservation Agent	
Other	Qin Rui, Town Engineer	
Habitat for All – Cluster Development at the "By-right" method for all new subdivision	Kristen Guichard, Planning Director	

3. Brushfires

3.1 - Setting/Historic Record

Event	Date	Impact/Size/Response
Brushfire	May 2023	Burned about four acres total of land.

3.2 - Capabilities

Capability	Changes
Open Burning permits required	
Fire Department reviews all development plans	

3.3 - Vulnerabilities and Risk

- State of previous vulnerabilities; Historic Structures; Critical Facilities; New Vulnerabilities:

3.4 - Actions

Action	Status Capability Completed Carry Forward Drop	Lead Department Department responsible for action	Notes What Happened? If dropping/ incomplete, why?
Provide education on outdoor fire regulations and risks utilizing town website	Capability	Emergency Management	

- Other Actions Completed (any action completed that may diminish risk. Does not have to intentionally addressed risk.)

--

- New Actions (include structural projects, natural resource protection, specific property protection, strengthening of emergency services/response, hazard prevention, education. Can include projects currently underway but incomplete)

Action	Lead Department Department responsible for action	Notes
Conduct outreach and promote cooling centers during heat waves	Emergency Management	
Promote water conservation measures during droughts	Acton Water District, Sustainability	
Promote sustainable landscaping that supports groundwater recharge (rain gardens, etc.) and demands less water (ie. drought-tolerant plants)	Acton Water District, Planning and Zoning, Public Works	

4. Extreme Temperatures and Drought Conditions

4.1 - Setting/Historic Record

Event (Scale)	Date	Impact
Heat Wave	July 2023	Opened the Acton Community Building for a cooling center in response to heat.
Level 3 Critical Drought	July 21, 2022	The Acton Water District (AWD) placed Outdoor Watering Restrictions
Statewide Drought	2016-2017	Drought declaration began in June 2016 with a Drought Watch which was upgraded to a Drought Warning in August 2016. The Central and Northeast regions were the most severely affected.

4.2 - Capabilities

Capability	Changes

4.3 - Vulnerabilities and Risk

- State of previous vulnerabilities; Historic Structures; Critical Facilities; New Vulnerabilities:

4.4 - Actions

Action	Status Capability Completed Carry Forward Drop	Lead Department Department responsible for action	Notes What Happened? If dropping/ incomplete, why?
Promote green and cool roofs and cooler paving products.		Planning and zoning and Public Works	

- Other Actions Completed (any action completed that may diminish risk. Does not have to intentionally addressed risk.)

- New Actions (include structural projects, natural resource protection, specific property protection, strengthening of emergency services/response, hazard prevention, education. Can include projects currently underway but incomplete)

Action	Lead Department Department responsible for action	Notes
Conduct outreach and promote cooling centers during heat waves	Emergency Management	
Promote water conservation measures during droughts	Acton Water District, Sustainability	
Promote sustainable landscaping that supports groundwater recharge (rain gardens, etc.) and demands less water (ie. drought-tolerant plants)	Acton Water District, Planning and Zoning, Public Works	

5. Winter Storms

5.1 - Setting/Historic Record

Event (Scale)	Date	Impact
Winter storm	January 6th - 7th, 2024	Heavy snow fall , 15 inches of accumulated snow
Winter Storm	March 4 th , 2023	Heavy wet snow fall, 5 inches of accumulated snow
Winter Storm	February 19 th , 2022	Heavy snow fall, 8.3 inches of accumulated snow

5.2 - Capabilities

Capability	Changes
Standard snow operations, reduced sand usage	
MassHighway clears state roads 2, 2A, and 111	
Tree maintenance by town and by NSTAR	NSTAR acquired by Eversource

5.3 - Vulnerabilities and Risk

- State of previous vulnerabilities; Historic Structures; Critical Facilities; New Vulnerabilities:

5.4 - Actions

Action	Status Capability Completed Carry Forward Drop	Lead Department Department responsible for action	Notes What Happened? If dropping/ incomplete, why?
Adopt a policy that requires snow removal from fire hydrants on private property	Carry Forward with Revisions	Planning and Zoning	There is no bylaw for this yet – edited to include fire hydrants everywhere and to be a policy since much easier to implement

- Other Actions Completed (any action completed that may diminish risk. Does not have to intentionally addressed risk.)

- New Actions (include structural projects, natural resource protection, specific property protection, strengthening of emergency services/response, hazard prevention, education. Can include projects currently underway but incomplete)

Action	Lead Department Department responsible for action	Notes
Conduct outreach and promote emergency shelters during snow storms	Emergency Management	
Improve communication on outages to the public during winter storms	Police, Town Manager's Office, Public Works	
	Anita? Carl?	

6. Geologic Hazards

6.1 - Setting/Historic Record

Event (Scale)	Date	Impact

6.2 - Capabilities

Capability	Changes
Police station is steel-framed and up to most recent building codes	
Evacuation plan outlined in CEMP	
Tanker task force available through state fire mobilization	
El Paso gas company provides training and education on hazard mitigation for its Tennessee Gas pipeline	
Slope stabilization requirements in subdivision and site plan regulations	

6.3 - Vulnerabilities and Risk

- State of previous vulnerabilities; Historic Structures; Critical Facilities; New Vulnerabilities:
Damage to structures, damage to transportation and other infrastructure, and localized road closures.

6.4 – Actions

Action	Status Completed Carry Forward Drop	Lead Department Department responsible for action	Notes What Happened? If dropping/ incomplete, why?
Construct new fire station	Completed	Planning and Zoning, Emergency Management	

- Other Actions Completed (any action completed that may diminish risk. Does not have to intentionally addressed risk.)

- New Actions (include structural projects, natural resource protection, specific property protection, strengthening of emergency services/response, hazard prevention, education. Can include projects currently underway but incomplete)

Action	Lead Department Department responsible for action	Notes

7. Wind Related Hazards

7.1 - Setting/Historic Record

Event	Date	Impact
Severe Thunderstorms	September 8 th , 2023	Tree damage across the town knocked out power to thousands of customers and caused hundreds of trees to topple.
Severe Thunderstorms	July 16 th , 2023	Triggered a tornado watch. Heavy rain and high winds

7.2 - Capabilities

Capability	Changes
Tree Maintenance Program by the Town	
Tree Maintenance Program by NSTAR	Eversource
Town buildings have hurricane resistant glass	

7.3 - Vulnerabilities and Risk

- State of previous vulnerabilities; Historic Structures; Critical Facilities; New Vulnerabilities:

7.4 - Actions

Action	Status Capability Completed Carry Forward Drop	Lead Department Department responsible for action	Notes What Happened? If dropping/ incomplete, why?
Continue to fund tree maintenance	Capability	Public Works	

- Other Actions Completed (any action completed that may diminish risk. Does not have to intentionally addressed risk.)

--

- New Actions (include structural projects, natural resource protection, specific property protection, strengthening of emergency services/response, hazard prevention, education. Can include projects currently underway but incomplete)

Action	Lead Department Department responsible for action	Notes
	Anita? Tree Warden?	

8. Multihazards

8.1 - Setting/Historic Record

Event	Date	Impact
COVID-19	March 2020 - Ongoing	Reached peak amount of cases in January 2022, 175.7 per every 100,000 residents.

8.2 - Capabilities

Capability	Changes
Multi-department review of developments	
Comprehensive Emergency Management Plan (CEMP)	
Enforcement OF State Building Code	
Regional Emergency Management Planning Committee (REPC)	
Emergency generators available for municipal facilities	
Reverse 911 and public announcements in the event of an emergency	
Emergency communications system	

8.3 - Actions Applicable to All Hazards

Action	Status Capability Completed Carry Forward Drop	Lead Department Department responsible for action	Notes What Happened? If dropping/incomplete, why?
Upgrade communications for flexibility – finish fiber optics, explore GETS card		IT	
Upgrade Arlington Street bridge – weight restriction affects emergency response time		Public Works, Planning and Zoning, Emergency Management	
Upgrade Laws Brook Road bridge		Public Works	
Improve emergency communication, particularly with difficult to reach populations (non-English speakers, isolated individuals)	Capability	Emergency Management and Human Services Department	

- Other Actions Completed (any action completed that may diminish risk. Does not have to intentionally addressed risk.)

- New Actions (can include structural projects, natural resource protection, specific property protection, strengthening of emergency services/response, hazard prevention, education. Can include projects currently underway but incomplete)

Action	Lead Department Department responsible for action	Notes

- Notes

FW: Draft: Acton Hazard Mitigation Plan for Review

Andrea Becerra <abecerra@acton-ma.gov>

Wed 7/31/2024 2:07 PM

To:Elizabeth McCarthy <emccarthy@slrconsulting.com>

1 attachments (10 MB)

Acton HMP_2024 Draft.docx;

From: Andrea Becerra

Sent: Friday, July 26, 2024 10:16 AM

To: Anita Arnum <aarnum@acton-ma.gov>; Wanjiku Gachugi <wgachugi@acton-ma.gov>; Kristen Guichard <kguichard@acton-ma.gov>; Matt Frost <mfrost@acton-ma.gov>; Julie Pierce <jpierce@acton-ma.gov>; Kristin Alexander <kalexander@acton-ma.gov>; Edward Mullen <emullen@acton-ma.gov>; Laura Ducharme <lducharme@acton-ma.gov>; Jim Cogan <jcogan@acton-ma.gov>; Lauren West <lwest@acton-ma.gov>; Mark Hald <mhald@acton-ma.gov>; Douglas Sturniolo <dsturniolo@acton-ma.gov> <dsturniolo@acton-ma.gov>

Cc: Corey York <cyork@acton-ma.gov>; Noah Slovin <nslovin@slrconsulting.com>; John Mangiaratti <jmangiaratti@acton-ma.gov>

Subject: Draft: Acton Hazard Mitigation Plan for Review

Good morning,

Many of you attended the Hazard Mitigation Plan working group meeting back in February. Since then we've had two public outreach events to solicit input on the goals and actions of the Hazard Mitigation Plan. Before we circulate the plan for public comment, can you please take a look at the attached plan and provide any feedback or comments by Friday, August 2nd?

This plan assesses Acton's natural disaster risks and vulnerabilities and established mitigation goals and actions to be taken over the next five years. The updated plan will allow Acton to continue to be eligible for FEMA funding and hazard mitigation grants.

Thank you for your input.

Best,
Andrea

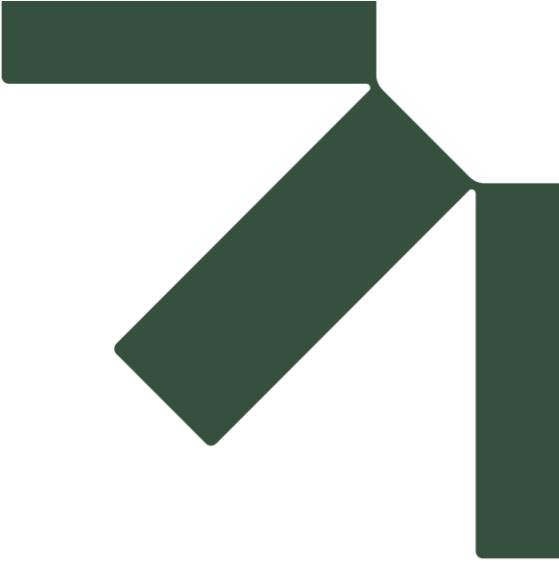
Andrea Becerra (she/her)

Sustainability Director

Town of Acton, MA

(978) 929-6515

actonma.gov/sustainability



Appendix B

Public Input and Engagement

[Home](#) > [News Flash](#)

Agendas & Minutes

Budget

Elections

Social Media

Kelley's Corner Construction Updates

Town Meeting

North Acton Fire Station Project

Licenses & Permits

Online Bill Pay

[News Flash Home](#)

The original item was published from 5/9/2024 12:47:00 PM to 5/17/2024 12:00:00 AM.

[Acton Town News](#)

Posted on: May 9, 2024

[ARCHIVED] Hazard Mitigation Plan Open House: Wednesday, May 15, 5:30-6:30PM

Is your community prepared to face natural disasters? Join us to provide your input on the goals and actions of Acton's Hazard Mitigation Plan to help reduce risk to Acton's people, economies, and natural environments. There will be snacks!

We want your input on the Hazard Mitigation Plan! Stop by any time on Wednesday, May 15, from 5:30 to 6:30 PM, for an open house at the Acton Memorial Library Meeting Room. The Hazard Mitigation Plan will assess Acton's natural disaster risks and vulnerabilities and identify proactive mitigation goals and actions to be taken over the next five years. Members of the public are welcome to stop by and ask questions and provide written or spoken input on the goals and actions for the next version of the Hazard Mitigation Plan. We will provide light (yummy) snacks.

Questions? Contact the Sustainability Office at 978-929-6515 or via email sustainability@actonma.gov.

[View the Flyer...](#)



Module Search

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Keyword:

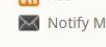
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[Acton Town News](#)

We want your input!

Hazard Mitigation Planning Event



Is your community prepared to face natural disasters? Join us to **provide your input** on the goals and actions of Acton's Hazard Mitigation Plan to help reduce risk to Acton's people, economies and natural environments.

Join Us on Wednesday, May 15th

Acton Memorial Library, Meeting Room
Stop by anytime from 5:30 to 6:30pm

Snacks
provided!

Questions? Contact the Sustainability Office, sustainability@actonma.gov | 978-929-6515

Memorandum



To: Andrea Becerra
Company: Town of Acton, MA
cc: Noah Slovin
Corey York
RE: Acton HMP Open House

From: Elizabeth McCarthy
SLR International Corporation
Date: May 16, 2024
Project No. 149.14458.00007

Attendee Sign-in Sheet

The following list displays the attendance of the Acton HMP Open House held on May 15th at 5:30 p.m. It should be noted that there were a few attendees who participated and left comments, but did not sign-in.

Name	Email	How long have you lived in Acton?
Alissa Nicol	alissanicol@actonma.gov	23 years
Mary Smith		40 years
Sharon Gruet	stgruet@gmail.com	25+
David Shoemaker	dhs@mit.edu	25+
Joe Will	Will6@earthlink.net	40 years
Kim Kastens	KimKastens@chayes.org	12 years
Heather Conkerton	hconkerton@oars3rivers.org	2.5 years
KJ Herther	kherther@comcast.net	30 years
David Martin		

Activity: Recent Storm Events and Impacts

Attendees were asked to write down impacts from recent storm events that they have observed or are aware of, as well as potential mitigation measures that may reduce the impacts of events in the future. The following is the written feedback that was received during the Open House.

Impacts

- Flooding of lawns, basements, sidewalks, driveways and roads
- Power lines down
- Trees down on roads, homes, and cars
- Extreme storm events – less storage capacity for flooding where there are dams. More pollutants going into our rivers because of increased rainfall and flooding
- Loss of electricity – we should have a better way of receiving information (understanding of what caused the outage and when it will be back on again)

Potential Mitigation Measures

- Put utility lines underground
- Solve power outages West Acton
- Electrical grid stability
- Let's remove/breach all the dams!

- Need more road sewers to help alleviate flooding

Activity: Hazard Mitigation Plan Goals

The goals from the previous 2018 Acton HMP were revised and updated for incorporation into the 2024 Plan Update. The process integrated input from municipal staff and agencies that was gathered during the 2024 HMP project kick-off meeting. The 12 updated goals were posted around the room for attendees to review and provide feedback. Attendees were encouraged to leave post-it notes on the goals, identifying potential mitigation measures or suggested additions to the goals. Goals as presented to attendees are listed below, with comments that were received at the Open House included as bullets below the relevant goal.

Goal 1: Prevent and reduce loss of life, injury, public health impacts, and quality of life impacts resulting from natural and human-caused hazards.

- It will be necessary to have a very clear definition of “human-caused” hazards
- Help people to help themselves – self-reliant and resilient
- Safety – electrical power loss ability to communicate and charge EV
- We should address increase of sodium in drinking water as a result of increased use of deicer
- Mainly related to the climate - concerned about flooding affecting roads, building, etc.
- Campaign to get more residents cell phone numbers and email addresses for emergency communications
- Research and resolve language issues for emergency communications

Goal 2: Prevent disruptions to public services, including utility services, municipal operations, and social services, from natural and human-caused hazards.

- Research and act on how to create effective incentives for Eversource to improve resilience of electric supply in Acton
- Role play with Acton Water District, town, and agencies, what would happen if a water resource type event happened again – sudden loss of 40% of Town’s water supply

Goal 3: Promote equity and environmental justice priorities throughout hazard mitigation and resilience efforts, including risk assessment and identification and implementation of mitigation measures.

- Thinking about people in apartments on upper floors enduring many more 90°F+ days each summer
- Do we have a plan for an event that would require percent of residents to be sheltered? Who would provide beds? Foods?
- Which hazard is most likely? Natural disaster like tornado, cyber security, attack that impacts power or water supply

Goal 4: Coordinate between multiple local, state, and federal initiatives, and build public-private partnerships, to secure funding for hazard mitigation projects.



Goal 5: Integrate hazard mitigation planning across municipal departments, committees, and boards; the planning documents that guide them; and the budgeting and capital improvement processes of each.

- Make sure to include Acton Water District and schools
- Be sure to specify that “municipal” includes the Action Water District, not just the Town of Acton

Goal 6: Consider the connection of different hazards and stresses to promote activities with co-benefits across hazard mitigation, water and air quality, conservation and preservation, climate and resilience, and other municipal priorities.

- Dam removal – improved climate resilience, water quality and recreational opportunities

Goal 7: Prevent and reduce damage to property, infrastructure, and natural, cultural, economic, and social resources from all hazards.

Goal 8: Work with stakeholders including Acton residents, businesses, institutions, developers, community-based organizations, land trusts, representatives of vulnerable populations, and non-profits to develop and implement hazard mitigation plan.

- Finding the big risks and planning for them is essential

Goal 9: Work with surrounding communities and state, regional, and federal agencies to promote regional cooperation and solutions for hazards affecting multiple communities.

Goal 10: Ensure that future development meets, or exceeds when feasible, federal, state, and local standards for preventing and reducing hazard impacts; explore and advance local development standards that will further reduce hazard risks in the future.

- Is there an updated floodplain map available? FEMA's latest is a decade old based on even older data
- Require cooling capacity in new construction?

Goal 11: Conduct meaningful engagement and education with staff and members of the public about hazard mitigation using a diversity of resources and platforms.

- Encourage people to store some supplies at home to be self sufficient for a few days in an emergency (food, water, prescription, meds, first aid)
- Offer First Aid training to residents

Goal 12: Consider the impacts of climate change and incorporate climate and resiliency in hazard mitigation planning.

- Render electricity less expensive to stimulate uptake of heat pumps
 - For the long-term climate
 - For near-term low impact air conditioning
- One climate impact creates shortage elsewhere or creates shortages in Acton (coffee, chocolate, wheat, etc.)



General Comments

- Concern that some hazards were immediately being dismissed or not considered (Tornadoes, coastal hazards, earthquakes, wildfires due to dry summers) – while the hazard may not directly impact or affect Acton, what if people who are impacted start to move to Acton or need support from Acton to recover and respond?
- During previous hazards impacts and severe events, residents have to be prepared because can't count on emergency response from the town
- Leaf blowers in town
- Need to have a clear Emergency Response Plan and back-up plan for all systems, operations, and departments so that if there is an event, we are prepared for what to do
- Reverse911 needs to be more effective
- 911 and emergency response were not answering during the Sept. 2023 Microburst
 - Emergency communications (fire and police) need to have overflow
- Acton should consider contracting out for disaster recovery to avoid having some companies overcharge (snow, tree, electrician)
- During Sept 2023 Microburst, a few roads were not closed even though they were hazardous with downed trees and power lines. Charter Road and Arlington (main bus route for the school, near the High School) had wires down but could not be closed off because there were no more barricades. Disaster Management needs more supplies or back up plan for these scenarios.





Hazard Mitigation

“Hazard mitigation planning reduces loss of life & property by minimizing the impact of disasters.”

Federal Emergency Management Agency



Hazard Mitigation Planning Process



Identify natural hazards,
risks, & vulnerabilities

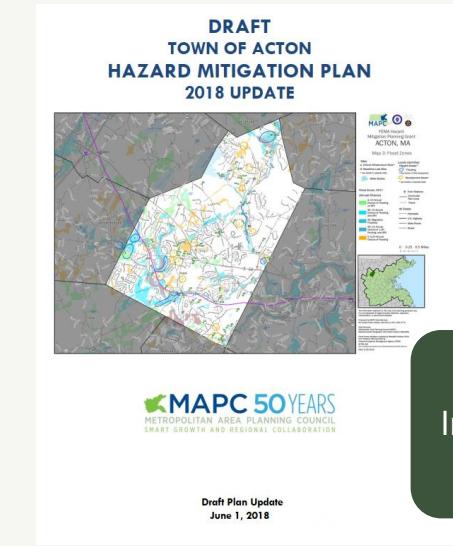


Develop long-term
strategies to protect people
& property





FEMA Hazard Mitigation Planning Process



1. Organize Planning Process and Resource

4. Adopt and Implement the Plan

HAZARD MITIGATION PLAN PUBLIC MEETING

Natural hazards can have serious impacts on the Town of Acton and its residents



The Acton Hazard Mitigation Plan is being updated to help the town reduce its vulnerability to natural hazard events such as flooding, hurricanes and winter storms. Please join the Town for a public presentation and discussion about the update to the Acton Hazard Mitigation Plan at a public meeting of the

Wednesday, April 18 2018
Acton Town Hall, Room 204
100 Main Street, Acton, MA

Table 6: Hazard Risks Summary

	Frequency		Severity	
	Massachusetts	Acton	Massachusetts	Acton
Flooding	High	Medium	From serious to extensive	Extensive
Dam failures	Low	Low	Extensive	Extensive
Coastal Hazards	High	N/A	Serious	N/A
Hurricane/Tropical Storm	Medium	Medium	Serious	Serious
Tornadoes	Medium	Low	Serious	Minor
Thunderstorms	High	High	Minor	Minor
Nor'easter	High	High	Minor	Minor
Winter-Blizzard/Snow	High	High	Minor	Minor
Winter-Ice Storms	Medium	Medium	Minor	Minor
Earthquakes	Very Low	Very Low	Serious	Serious
Landslides	Low	Low	Minor	Minor
Brush fires	Medium	Low	Minor	Minor
Extreme Temperatures	Medium	Medium	Minor	Minor
Drought	Low	Low	Minor	Minor

Source: Massachusetts State Hazard Mitigation Plan, 2013, modified for Acton

3. Develop the Mitigation Strategy



Overview of HMP Sections





Natural Hazards





Local Hazard Concerns



Drought

- Water supplies
- Wildfire risk



Flood

- Stormwater flooding,
- Drainage capacity



Wind

- Power outages
- Debris



Snow

- Access, egress
- Hydrant access



Emergency Response

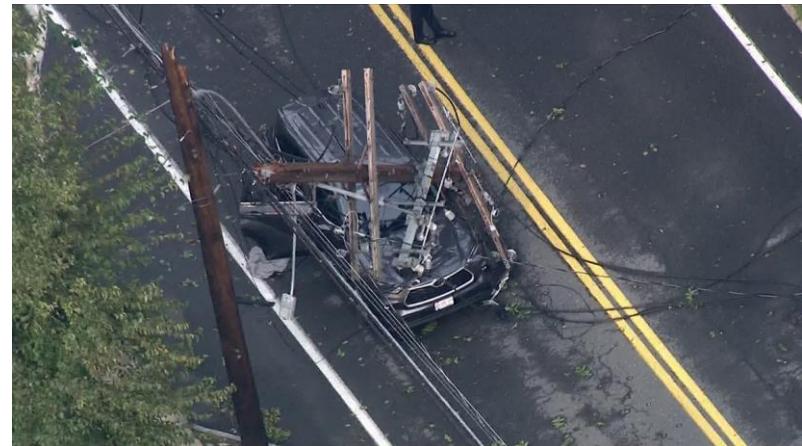
- Capacity & Staff
- Sheltering

Local Hazard Concerns

Microburst Damage



Source: CBS Boston (Sept. 8, 2023)



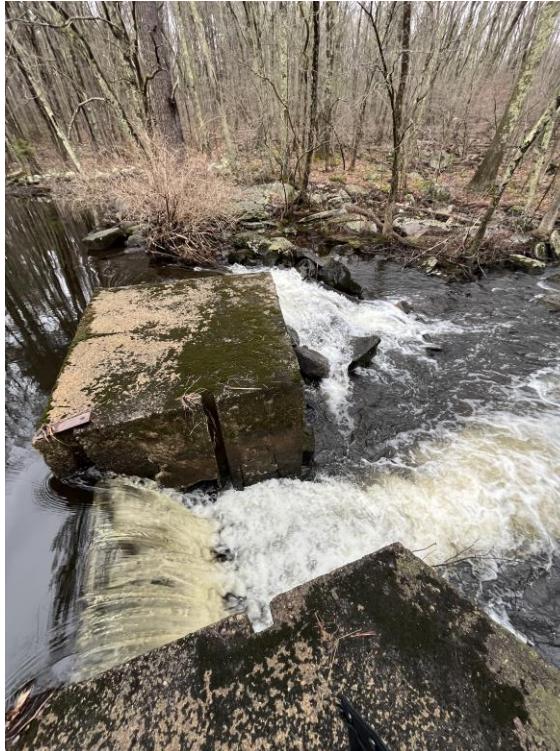
Source: WCVB





Local Hazard Concerns

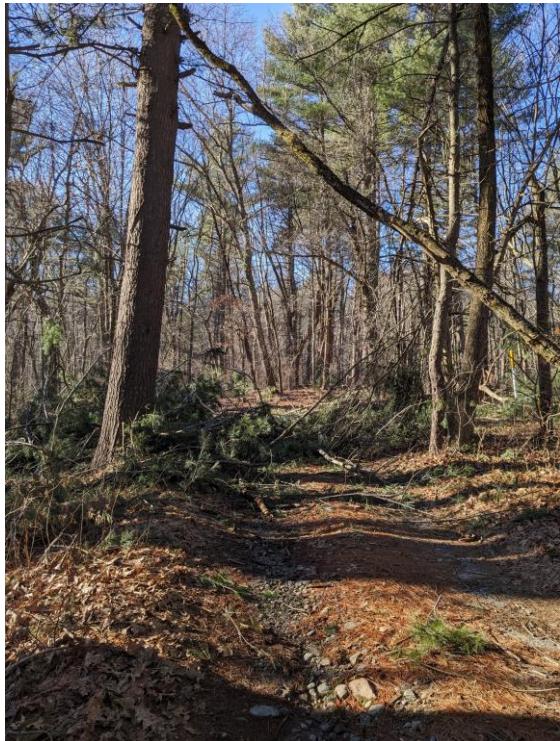
Bellows Farm Dam





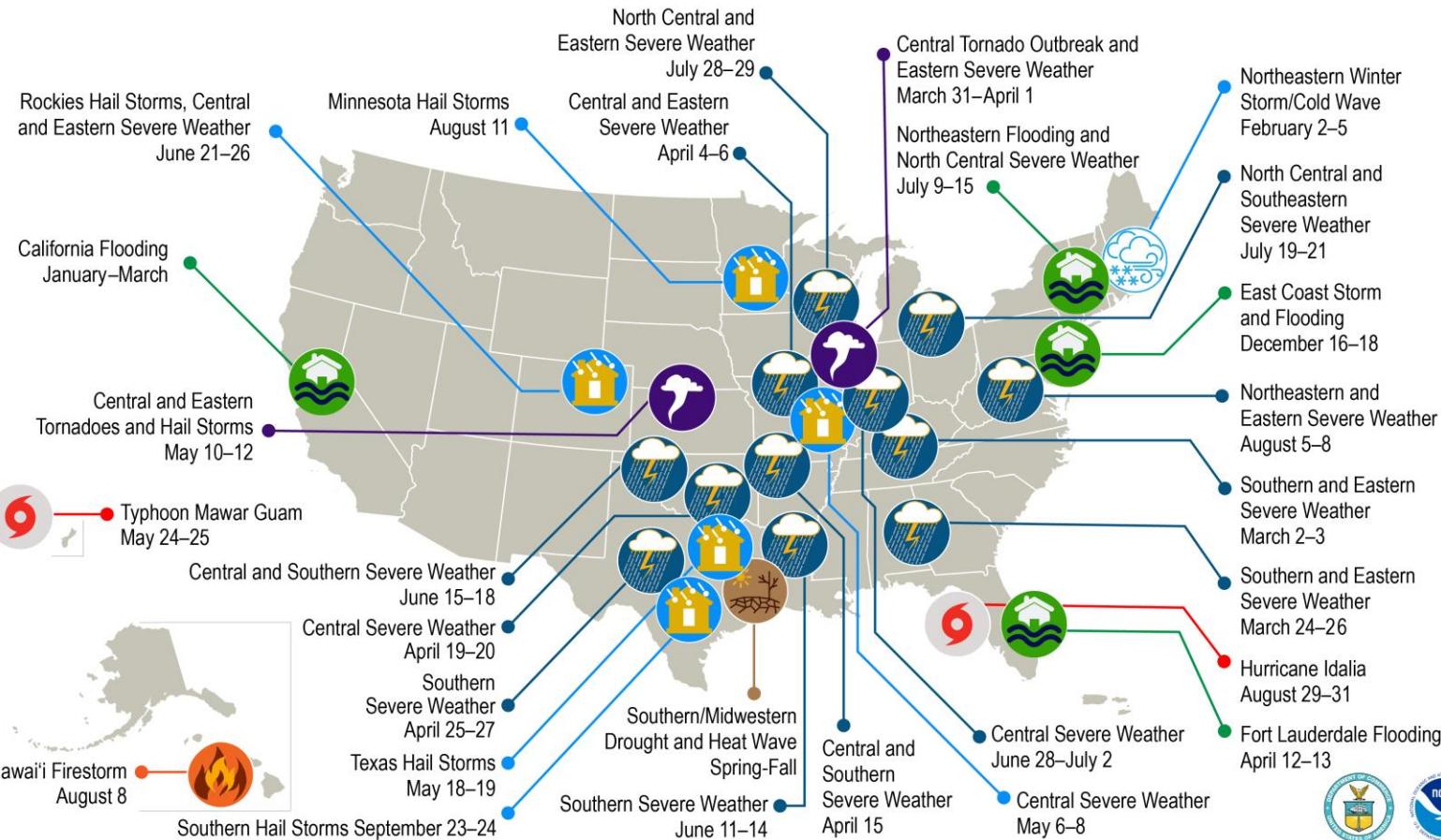
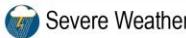
Local Hazard Concerns

Damage across Acton Conservation Lands



Source: Acton Trails (Dec. 22, 2023)

U.S. 2023 Billion-Dollar Weather and Climate Disasters



This map denotes the approximate location for each of the 28 separate billion-dollar weather and climate disasters that impacted the United States in 2023.



Climate Projections and Impacts In Massachusetts

RISING TEMPERATURES¹



23–29 high heat days per year expected by **2050** and annual average temperature increase of **5.9 to 7.9°F**.



Those most likely to be affected from high heat include unhoused populations, those working outdoors, the elderly, infants, individuals with chronic diseases (e.g., asthma), and environmental justice and other priority populations.



Extreme temperatures are projected to increase annual transportation infrastructure maintenance costs by over **\$140 million** by the end of the century.



CHANGES IN PRECIPITATION²



By **2070**, Massachusetts is expected to receive **12–42%** more winter precipitation.

Environmental justice and other priority populations live near commercial and industrial buildings that have a **57% higher risk** of flood damage than the rest of the Commonwealth.



Annual economic flood damage is estimated to increase by **\$9.3 million** by **2030** across the Commonwealth.

COASTAL FLOODING³



Massachusetts is planning for sea level rise by up to **2.5 feet by 2050** compared to 2008 if global emissions are not significantly reduced. Both tidal and storm-related flooding are projected to increase.

Risks and consequences from inundation will be more significant among sensitive assets such as hospitals, schools, prisons, care facilities, and underground and at-grade living quarters.



By 2070, coastal flooding is projected to cause over **\$52 million** in damage annually to state-owned coastal properties, a **550%** increase from 2023.

SEVERE WEATHER⁴

Includes strong winds, tornadoes, extreme precipitation, and droughts. Precipitation amounts from the heaviest storms in the Northeast have increased by **55%** since **1958**.



High winds are of particular concern to coastal areas, where wind speeds can reach **110+ miles per hour**.



Populations living or working outdoors will be increasingly exposed to dangers of more frequent and increasingly severe weather.

Lightning was responsible for **\$20.4 million** in damage in Massachusetts between 2002 and 2022.⁵



Most Urgent Priority Impacts Of Climate Change In Massachusetts

				
HUMAN	INFRASTRUCTURE	NATURAL ENVIRONMENT	GOVERNANCE	ECONOMY
<p>Health and Cognitive Effects from Extreme Heat, including premature death and learning loss in children.</p> <p>Health Effects from Degraded Air Quality, including childhood asthma cases and premature death due to the climate impact on particulate matter and ozone air quality.</p> <p>Emergency Service Response Delays and Evacuation Disruptions from extreme storms, leading to injuries, loss of life, and urgent need for health, safety, and traffic first responders.</p> <p>Loss of life or injury due to high-vulnerability dams, hurricanes, wildfires, extreme flooding, or extreme temperatures.</p> <p>Disproportionate impacts on unhoused populations from extreme temperatures or extreme flooding.</p>	<p>Damage to Inland Buildings from heavy rainfall and overwhelmed drainage systems.</p> <p>Damage to Electric Transmission and Utility Distribution Infrastructure associated with heat stress and extreme events.</p> <p>Damage to Rails and Loss of Rail/Transit Service, including flooding and track buckling during high heat events.</p> <p>Damage or loss of unreinforced masonry buildings due to earthquakes.</p> <p>Damage to infrastructure, utilities, and buildings in liquefaction zones due to earthquakes.</p> <p>Damage or loss to homes and critical facilities in the wildland urban interface.</p>	<p>Freshwater Ecosystem Degradation due to warming waters, drought, and increased runoff.</p> <p>Marine Ecosystem Degradation because of warming, particularly in the Gulf of Maine, and ocean acidification.</p> <p>Coastal Wetland Degradation from sea level rise and storm surge.</p> <p>Forest Health Degradation from warming temperatures, changing precipitation, increasing wildfire frequency, and increasing pest occurrence.</p> <p>Loss of biodiversity, habitats, and native species due to climate change impacts.</p>	<p>Reduction in State and Municipal Revenues, including a reduced property tax base due to coastal and inland flood risk.</p> <p>Increase in Costs of Responding to Climate Migration, including planning for abrupt changes in local populations.</p> <p>Increase in Demand for State and Municipal Government Services, including emergency response, food assistance, and state-sponsored health care.</p> <p>Inability to carry out mission and services due to damage, disruption, or loss of state assets and services.</p>	<p>Reduced Ability to Work, particularly for outdoor workers during extreme heat, as well as commute delays due to damaged infrastructure.</p> <p>Decrease in Marine Fisheries and Aquaculture Productivity from changing ocean temperatures and acidification, which leads to decreased catch and revenues and impacts on related industries.</p> <p>Reduction in the Availability of Affordably Priced Housing from direct damage (e.g. flooding) and the scarcity caused by increased demand.</p> <p>Damage, disruption, or loss of coastal infrastructure such as seaports, airports, and maritime industries.</p>

What is Hazard Mitigation?





Example Actions

Flooding

- Allow Cluster Development By Right for New Subdivisions

Dam Failure

- Assess Erickson's Grain Mill Dam

Drought

- Promote landscaping to support groundwater recharge and demand less water

Extreme Temperature

- Conduct outreach to promote cooling centers in heat waves

Winter Storms

- Develop policy for snow removal from fire hydrants

All Hazards

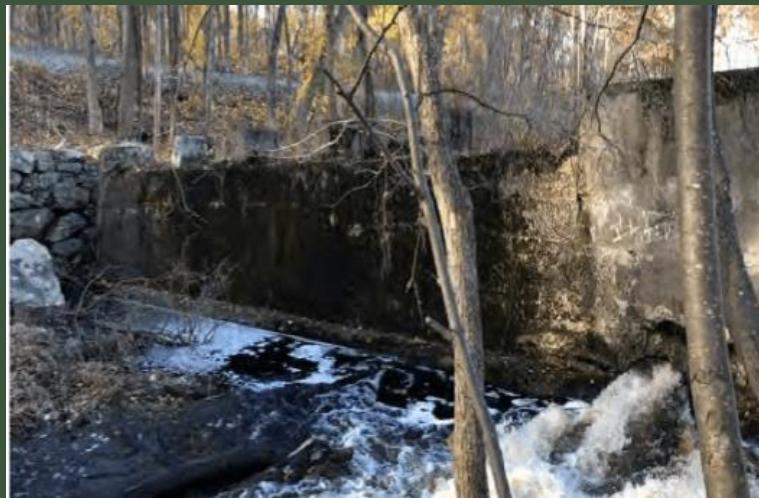
- Upgrade Laws Brook Road bridge and Arlington Street Bridge

Example Actions

River Street Dam Removal



Source: John Guilfoil Public Relations

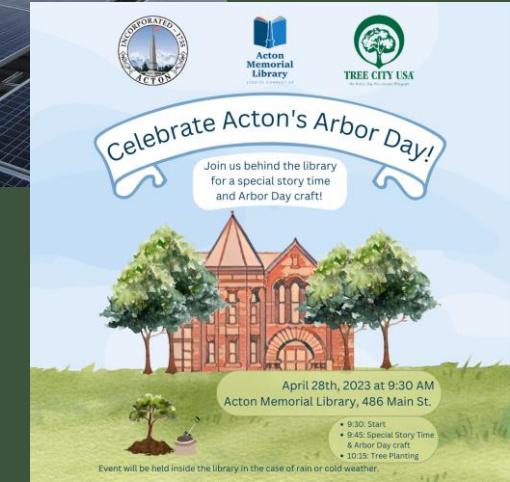


Not for construction. Part of a student project and not based on



Example Actions

Tree trimming, emergency power, flood protection, education and engagement....





TELL US WHAT YOU THINK

VISIT THE OTHER STATIONS TO PROVIDE
FEEDBACK.



ACTON CLIMATE RESILIENCE FESTIVAL



FREE
activities for
all ages,
food, + music!

**Saturday, June 8
1 - 4pm**

Gardner Field, West Acton

bit.ly/ActonClimateFestival



Remarks by Senator Jamie Eldridge,
Representative Danillo Sena, and Select Board Chair Fran Arsenault





ACTON CLIMATE RESILIENCE FESTIVAL



Featured Organizations and Initiatives

- Municipal Vulnerability Preparedness (MVP) 2.0
- Acton-Boxborough Farmers Market (ABFM)
- Acton Clean Energy Coaching Program
- Acton Climate Coalition
- Acton Conservation Trust
- Acton Garden Club
- Acton Houses of Worship Green Teams
- Acton Libraries
- Acton Power Choice
- Acton Water District
- Blackbird Cafe
- Boston Area Gleaners
- Energize Acton
- Green Acton
- Hazard Mitigation Plan (HMP) Update
- Mothers Out Front
- Town of Acton Sustainability Office
- Wasted* Circular Sanitation
- West Side Creamery



Featuring music by Anderson-Gram Acoustic Duo and
AB Orquesta de la Revolución!



Memorandum



To: Andrea Becerra

From: Elizabeth McCarthy

Company: Town of Acton, MA

SLR International Corporation

cc:

Date: July 31, 2024

Project No. 149.14458.00007

RE: Climate Resilience Festival Summary and Key Takeaways

Acton held a Climate Resilience Festival on June 8, 2024. Acton prepared a booth at the festival dedicated to engaging event attendees on the HMP. At the booth, Town and SLR staff provided information about the HMP process, shared goals and actions identified so far, and solicited input on hazard mitigation priorities and strategies, which included taking note of local experiences concerning natural hazards. Pictures of the HMP booth are included in the following summary.

The Climate Resilience Fair was well attended (over 200 residents) and there were many visitors to the HMP booth. There were several interactive activities at the booth to encourage feedback on the HMP process. This included a map of Acton where attendees could mark the location of their house, their favorite places in Acton, or where they have observed hazard impacts in the past and are concerned about risks in the future with a blue, green, or red marker respectively.



Picture 1: Map of Acton at the HMP Booth

A poster with all twelve (12) goals developed by the Local Hazard Mitigation Plan Team and an example action for each goal. Attendees were asked to provide thoughts on the goals and actions identified so far, as well as any other concerns related to natural hazards and mitigation efforts in Acton, either by writing feedback on an index card to be collected for review or to discuss with staff at the booth who recorded comments.



Picture 2: Basket to Collect Input from Participants





Picture 3: Poster Boards of Mitigation Goals and Example Actions

The main concern expressed by attendees was minor street flooding issues. Several people mentioned natural gas leaks, which does not apply to the scope of the HMP. In general, it appeared that hazard mitigation planning was not a worry or focus for event attendees. People did not seem overly concerned, which could suggest that the community feels safe, more public education around natural hazards and climate change could be beneficial, or that these attendees have not had personal experiences with natural disasters.





TOWN OF ACTON HAZARD MITIGATION PLAN UPDATE

 bit.ly/ActonHMP

Hazard Mitigation Planning Team



Noah Slovin

Senior Resilience Planner



Elizabeth McCarthy

*Project Climate
Resilience Consultant*



Hailey Brim

*Staff Climate Resilience
Consultant*

Town of Acton

Andrea Becerra

Sustainability Director

Corey York

DPW Director

Lauren West

Environmental Analyst



Last Hazard Mitigation Plan Update

Acton Hazard Mitigation Plan, 2018 Update

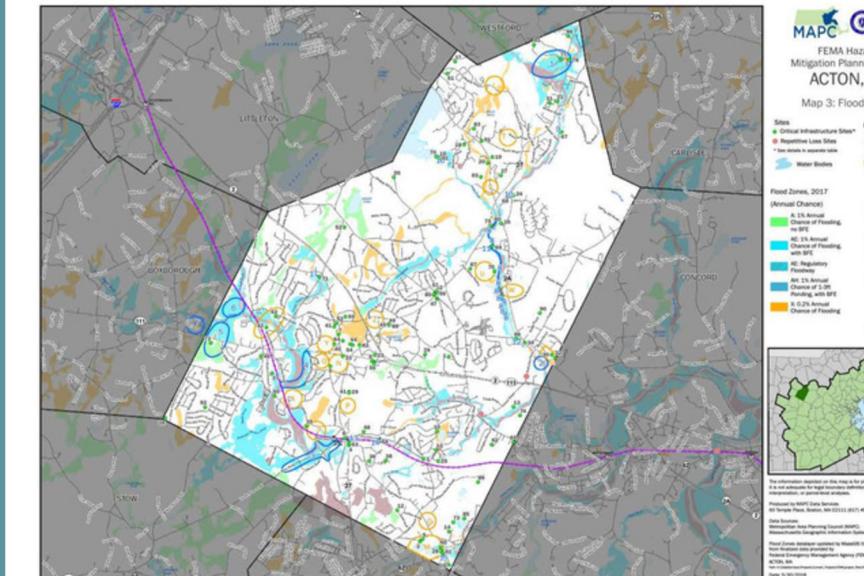
Hazard mitigation planning (HMP) **reduces loss of life & property by minimizing the impact of disasters.**

Having an active HMP helps the Town understand natural hazards & develop mitigation strategies while ensuring eligibility for FEMA funding & hazard mitigation grants.

The most current version of Acton's Hazard Mitigation Plan was released in 2018.

Visit bit.ly/ActonHMP for more information!

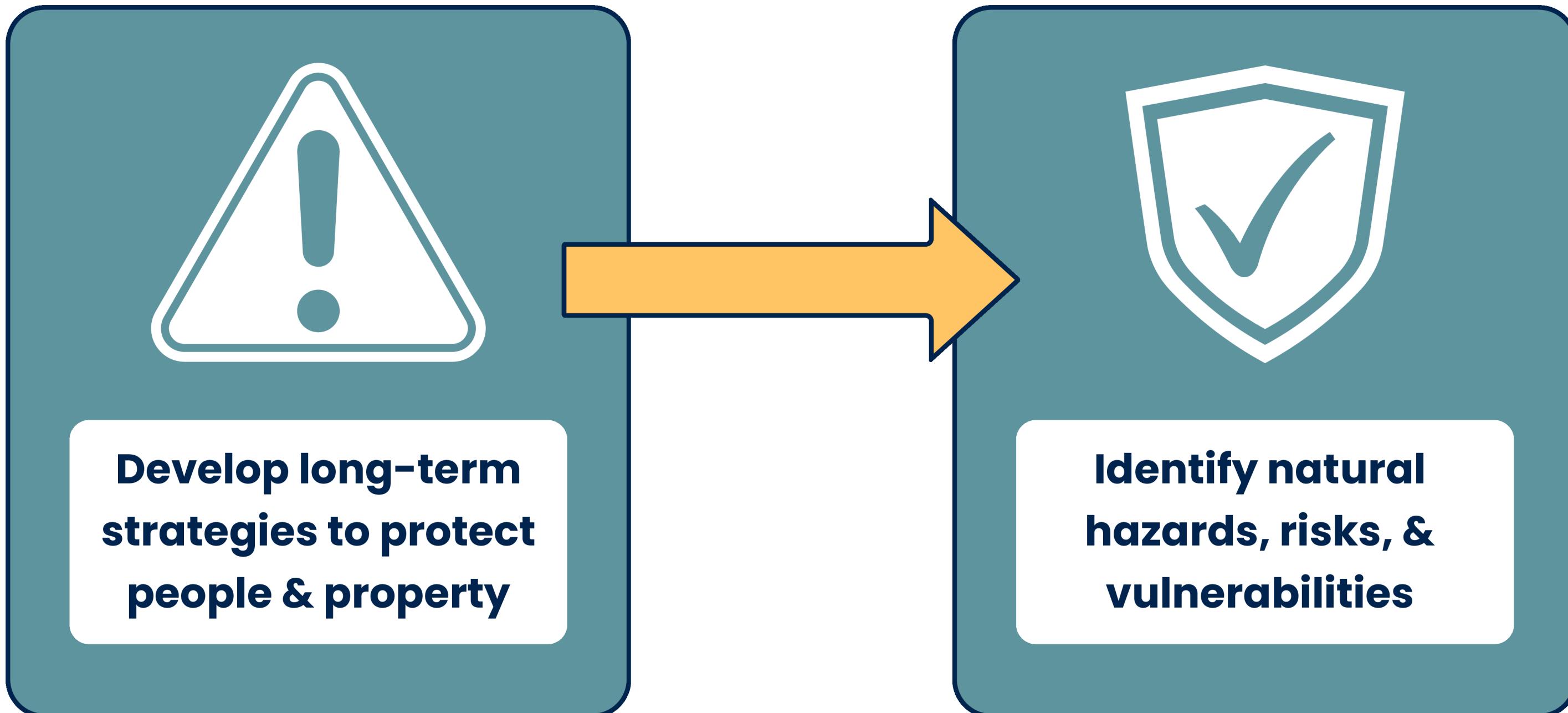
DRAFT TOWN OF ACTON HAZARD MITIGATION PLAN 2018 UPDATE



MAPC 50 YEARS
METROPOLITAN AREA PLANNING COUNCIL
SMART GROWTH AND REGIONAL COLLABORATION

Draft Plan Update
June 1, 2018

Hazard Mitigation Planning Process



FEMA Hazard Mitigation Planning Process



Acton's HMP Process

The HMP update was led by a team of Acton Town staff & officials, Acton Water District representatives, & community members from Green Acton.



The community was invited to two public engagement events to share input for the draft plan: an Open House at the Library & a booth at the Acton Climate Festival.



TOWN OF ACTON HAZARD MITIGATION PLAN UPDATE

 bit.ly/ActonHMP

Hazard Risks Summary

Table 4-13: Hazard Risks Summary

Hazard	Massachusetts Hazard Risk Summary						Action Hazard Risk Summary	
	Geospatial Scale Impacts	Magnitude of Consequences			Likelihood of Hazard	Warning Time		
		Human	Economic	Environment				
Average/Extreme Temperatures	Multi-state	Very High	Medium	Very High	Very High	1-5 days	Medium	
Drought	Multi-state	High	High	High	Medium	1 week+	Medium	
Earthquakes	Multi-state	High	Medium	Low	Medium	No warning	Low	
Flooding from Precipitation	Localized	Very High	High	Medium	Very High	1-5 days	High	
Dam Overtopping	Localized	High	Medium	Low	Medium	1 week	Medium	
Hurricanes/Tropical Cyclones	Multi-state	Very High	High	Medium	Medium	1-5 days	High	
Landslides	Localized	High	Low	Medium	High	No warning	Low	
Other Severe Weather	Localized	High	Low	Low	Very High	1 day	High	
Severe Winter Storms	Multi-state	Very High	Low	Low	High	1-5 days	Medium	
Tornadoes	Multi-state	High	Medium	Medium	High	Hours	Low	
Wildfires	Regional	High	Medium	Medium	Very High	Hours	Low	

Identified Hazard Risks

HIGH

Flooding from precipitation
 Hurricanes/Tropical Cyclones
 Other Severe weather (strong winds, extreme precipitation, and severe thunderstorms.)

MEDIUM

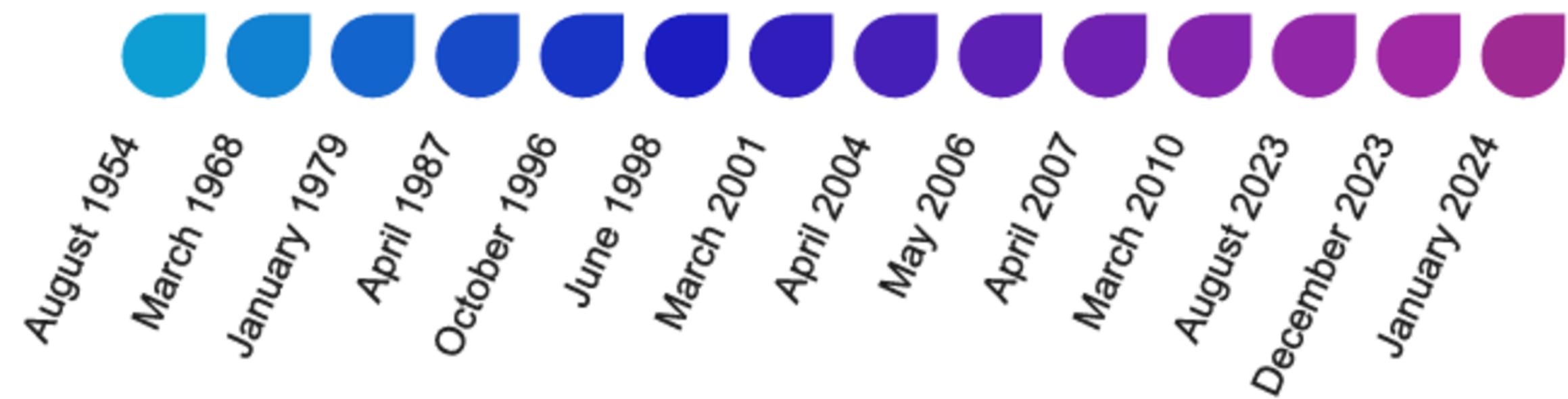
Extreme Temperatures
 Drought
 Dam Overtopping
 Severe Winter Storms

Flooding

Between \$230,000-\$1.5 million in structural damage expected annually in Acton

- Dams
- Beavers
- Inadequate drainage

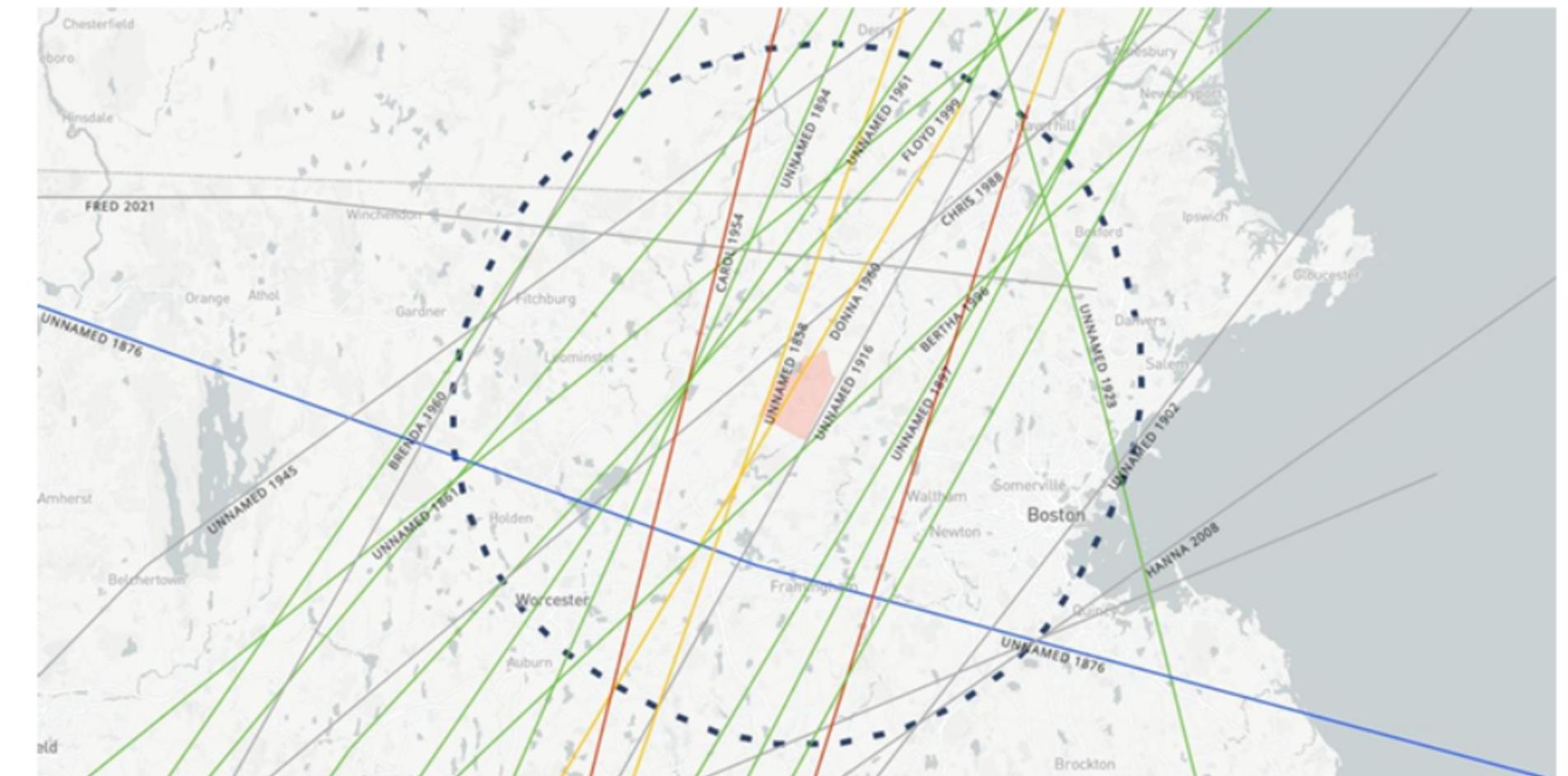
There have been a number of major floods that have affected the Metro Boston region over the last sixty years. Significant flood events that have impacted Acton include:



Middlesex County, which includes the Town of Acton, experienced 62 flood events from 2010 to May 2024. No deaths or injuries were reported and the total property damage in the county was over \$36 million.

Wind & Severe Weather

- Severe thunderstorms
(July 16th 2023 & Sep. 8th 2023)
- Hurricanes and tropical storms
- Tornados



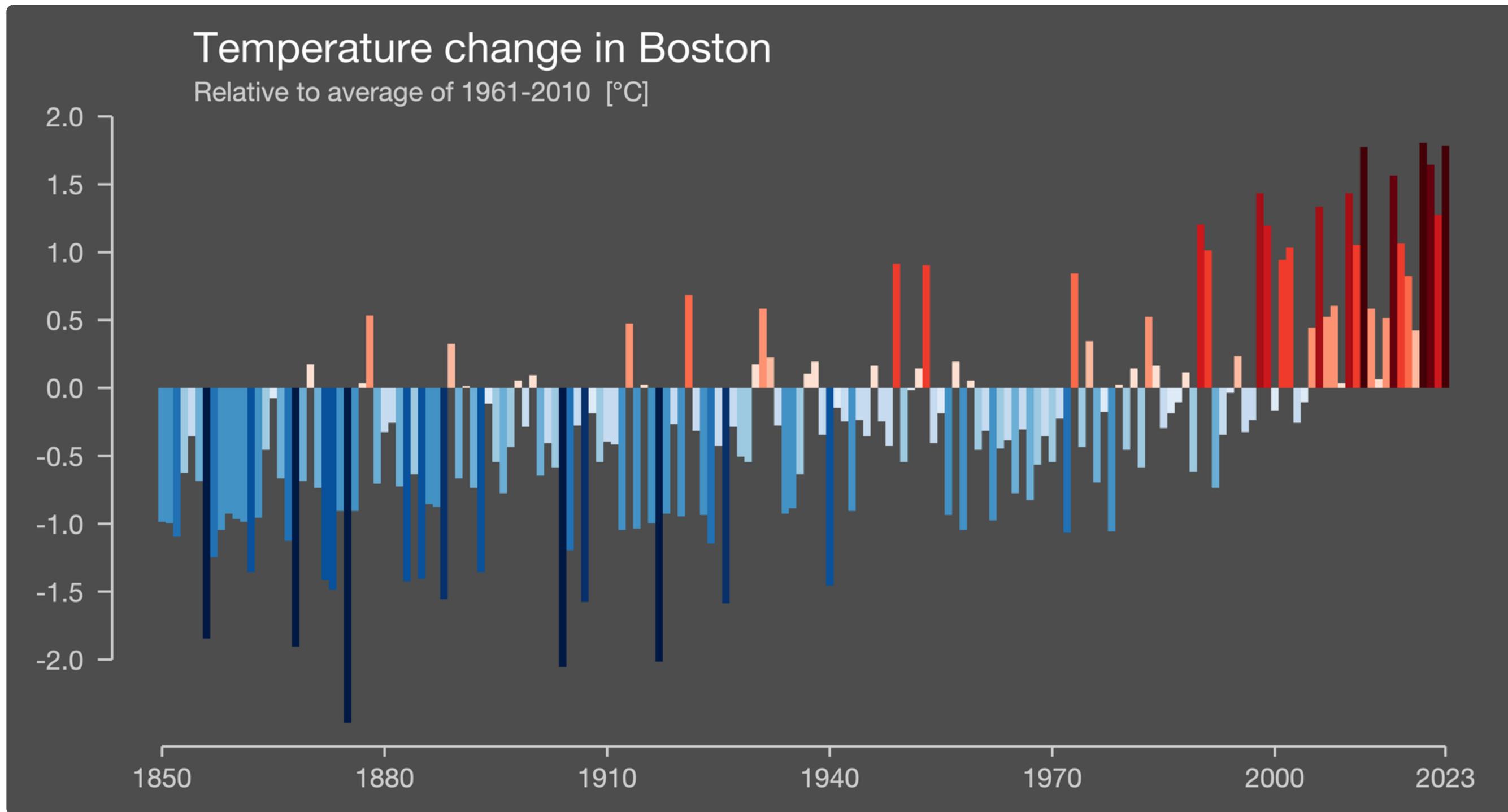
Map Legend:
Red Line: Cat 3 Yellow Line: Cat 1 Green Line: Trop. Storm Blue Line: Trop. Depression

Source: National Hurricane Center

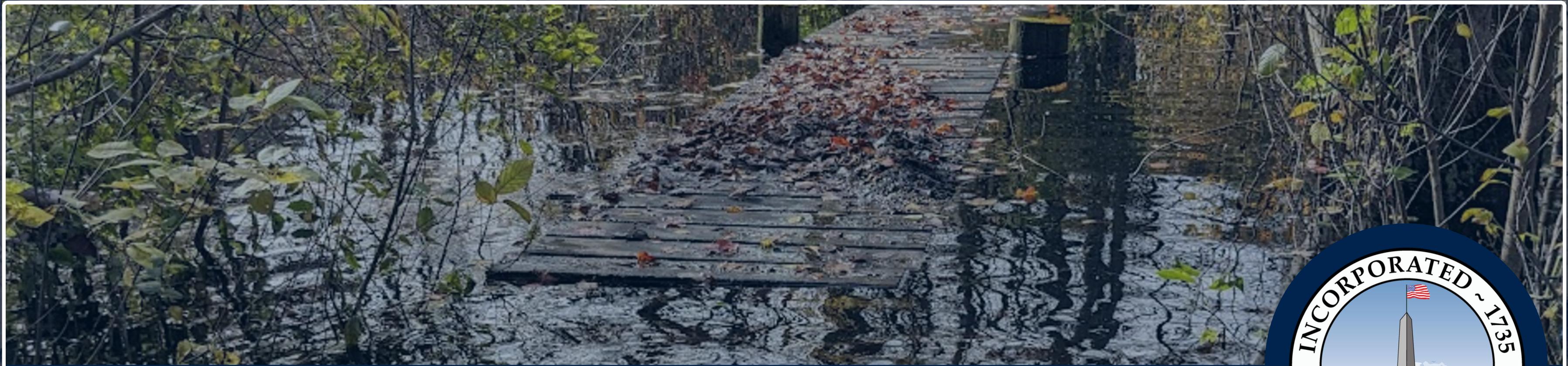
**Annualized losses for Acton
estimated at \$1.6 million,
according to SHMPcap**

Historical Tropical Cyclones within 60 Nautical Miles of Acton

Climate Change



“Change is the only constant” – Heraclitus 500 BCE



ACTION HMP DRAFT UPDATE GOALS & ACTIONS

 bit.ly/ActonHMP

Draft Plan Goals + Actions

Goal 1: Prevent & reduce loss of life, injury, public health impacts, & quality of life impacts resulting from natural & human-caused hazards.

Actions:

- 1.1:** Prioritize water resource protection from contamination & other natural hazards & support protection of green spaces near water table recharging areas as recommended in the 2022 Climate Action Plan.
- 1.2:** Update subdivision regulations to allow cluster development "as-of-right".

Draft Plan Goals + Actions

Goal 2: Prevent disruptions to public services, including utility services, municipal operations, & social services, from natural & human-caused hazards.

Actions:

- 2.1:** Complete GIS stormwater mapping & prepare for GIS work needed to comply with EPA stormwater regulations (MS4).
- 2.2:** Upgrade communications for flexibility & reliability, including finishing fiber optics & exploring GETS cards.
- 2.3:** Assess emergency shelter capabilities during extreme heat, winter storms, & other severe weather events & evaluate opportunities to improve capacities to better serve the community, specifically the most vulnerable populations.
- 2.4:** Complete development of new groundwater sources, including new sources at the Central Acton Water Treatment Plant, & installation of PFAS treatment systems to increase resilience of Acton Water District services in the face of new PFAS limits.

Draft Plan Goals + Actions

Goal 3: Promote equity & environmental justice priorities throughout hazard mitigation & resilience efforts, including risk assessment & identification & implementation of mitigation measures.

Actions:

- 3.1:** Establish an annual water conservation campaign to educate residents about conservation measures, encourage best practices to minimize water demand, & facilitate discussions around drought risk.
- 3.2:** Establish an annual public outreach program, targeting vulnerable populations including senior residents, residents with health complications, renters, low-income residents, or those living with no air conditioning, to increase awareness of the dangers of extreme heat & promote the use of & access to cooling centers.
- 3.3:** Improve emergency communication, particularly related to power outages & with a focus on difficult to reach populations (isolated individuals, vulnerable populations, non-English speakers). Conduct engagement & workshops with vulnerable populations to address communication challenges.

Draft Plan Goals + Actions

Goal 4: Coordinate between multiple local, state, & federal initiatives, & build public-private partnerships, to secure funding for hazard mitigation projects.

Actions:

4.1: Develop a comprehensive program for stormwater management, including culvert & drainage upgrades.

4.2: Identify ideal sites & buildings to maximize the installation of renewable energy & energy storage systems where feasible on municipal buildings, properties, & Acton-Boxborough Regional School district buildings, as recommended in the 2022 Climate Action Plan.

4.3: Coordinate with Eversource & the Department of Energy Resources to identify opportunities to increase grid resilience & reliability, encourage clean energy, alter utility electric rate structures, & monitor & advocate for policy changes needed to the Public Utilities Commissions, as recommended in the 2022 Climate Action Plan.

Draft Plan Goals + Actions

Goal 5: Integrate hazard mitigation planning across municipal departments, committees, & boards; the planning documents that guide them; & the budgeting & capital improvement processes of each.

Actions:

5.1: Conduct workshops & tabletop exercises with Acton Water District & town departments to develop a clear plan during water resource emergencies, including droughts, contamination, or generally strained water supply.

5.2: Establish an Emergency Response Protocol that includes wellness checks for senior residents, those relying on oxygen, & other vulnerable populations at an increased health risk during the event of a power outage.

Draft Plan Goals + Actions

Goal 6: Consider the connection of different hazards & stresses to promote activities with co-benefits across hazard mitigation, water & air quality, conservation & preservation, climate & resilience, & other municipal priorities.

Actions:

6.1: Establish programs to promote the use of green infrastructure & sustainable landscaping in private properties that supports groundwater recharge &/or demands less water (rain gardens, drought-tolerant plants, etc.)

6.2: Incorporate incentives &/or requirements into Zoning Regulations to promote the use of green or cool roofs, cooler paving products, Low Impact Development (LID), green infrastructure, & other cooling capacities &/or heat mitigation measures into new construction & development. Align with recommendation from 2022 Climate Action Plan to advocate for sustainable land management to protect local natural resources.

Draft Plan Goals + Actions

Goal 7: Prevent & reduce damage to property, infrastructure, & natural, cultural, economic, & social resources from all hazards.

Actions:

- 7.1:** Explore opportunities to increase the frequency of drainage structure maintenance. Options may include increasing maintenance frequency at known-problem structures, establishing an "Adopt a Drain" program, or acquiring more efficient & effective maintenance equipment.
- 7.2:** Assess Erickson's Grain Mill Dam, facilitate consideration of wider breach to reduce risk
- 7.3:** Identify an appropriate site & implement a pilot beaver dam best management practice such as installing water level control devices or a "beaver deceiver"
- 7.4:** Complete the River Street Dam removal & channel restoration project
- 7.5:** Upgrade Arlington Street bridge as weight restriction affects emergency response time
- 7.6:** Upgrade Laws Brook Road bridge
- 7.7:** Explore methods of reducing salt use in roadway treatment to balance winter driving safety with habitat protection and groundwater quality; this may include reduced treatment, increased use of sand instead of salt, or other best practices.

Draft Plan Goals + Actions

Goal 8: Work with stakeholders including Acton residents, businesses, institutions, developers, community-based organizations, land trusts, representatives of vulnerable populations, & non-profits to develop & implement hazard mitigation plan.

Actions:

8.1: Conduct public outreach and education to increase responsible land management practices and minimize risk of brushfires.

8.2: Pursue partnering with solar developers to create community solar program options for Acton residents and provide a participation pathway for low-income residents, as recommended in the 2022 Climate Action Plan.

Draft Plan Goals + Actions

Goal 9: Work with surrounding communities & state, regional, & federal agencies to promote regional cooperation & solutions for hazards affecting multiple communities.

Actions:

- 9.1:** Review impacts of the 2024 Earthquake (Tewksbury Township, New Jersey). Research New England communities impacted by the event and determine how Acton can adjust and prepare so that future earthquakes may not impact the community in the same manner.
- 9.2:** Identify and pursue regional MVP Action Grant opportunities with nearby MVP 2.0 communities.

Draft Plan Goals + Actions

Goal 10: Ensure that future development meets, or exceeds when feasible, federal, state, & local standards for preventing & reducing hazard impacts; explore & advance local development standards that will further reduce hazard risks in the future.

Actions:

10.1: Pursue specific land acquisition or open space protection projects identified in the 2024 Open Space and Recreation Plan that advance hazard mitigation priorities.

Draft Plan Goals + Actions

Goal 11: Conduct meaningful engagement & education with staff & members of the public about hazard mitigation using a diversity of resources & platforms.

Actions:

11.1: Develop programs for residents to improve individual hazard mitigation preparedness and knowledge of local climate hazards, including but not limited to First Aid Training, Climate Resilience Crash Courses, Heat and Stormwater Mitigation on private property, etc.

Draft Plan Goals + Actions

Goal 12: Consider the impacts of climate change & incorporate climate & resiliency in hazard mitigation planning.

Actions:

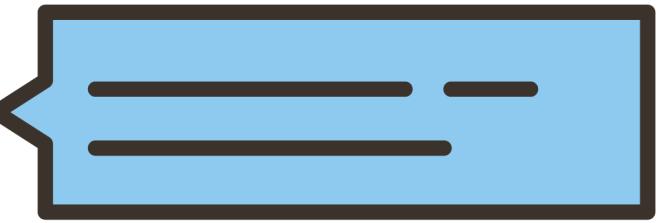
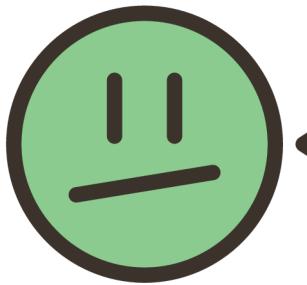
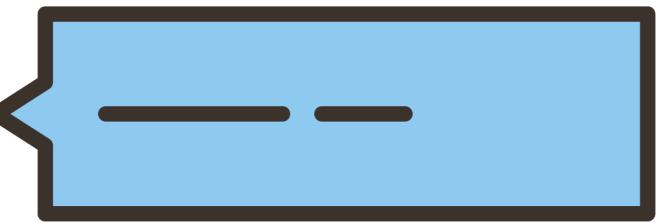
12.1: Conduct a town-wide flood study to identify flood vulnerabilities and identify resilience measures.

Feedback Breakout Rooms

You will be sent to a breakout room to review the goals & actions described in the Draft Updated Hazard Mitigation Plan.

Instructions:

- Once in your breakout room, you will be prompted to read the goals & actions displayed on the page
- Please share comments through the chat or verbally
- Feel free to write down additional comments and email them to sustainability@actonma.gov!





THANK YOU FOR ATTENDING!

If you have additional questions or comments, please reach out to the Sustainability Office at sustainability@actonma.gov or **978-929-6515**



bit.ly/ActonHMP

Memorandum



To: Andrea Becerra

From: Elizabeth McCarthy

Company: Town of Acton

SLR International Corporation

cc: Corey York, Lauren West

Date: September 16, 2024

Project No. 149.V14458.00007

RE: Town of Acton 2024 HMP Update Public Webinar Summary

Summary of Recommended Revisions

- Executive Summary
 - List all hazards considered in the risk assessment
 - List all actions with associated priority level
- Hazard Mitigation Strategy
 - Rerumber actions based on the assigned numbers from webinar presentation (1.1, 1.2, etc.)
 - Clarify that the frequency and impact included in the Hazard Risk Summary table is pulled from the *statewide* SHMCAP methodology and results
 - Add a column to Table 8-1 to display the corresponding goals for each action

Notes

Participant Comments	Responses during Webinar / How to address the comment in the HMP
Likelihood of Drought in Table 4-13 didn't seem reflective of Acton's climate and frequency of hazard	<ul style="list-style-type: none">• Elizabeth explained that the likelihood is based on methodology from the SHMCAP and reflects statewide risk summary• Consider whether update to HMP needs to include a clear description that the information for the hazard summary table is pulled from the state plan and displays statewide risk
List the number of utility outages per year related to recent storm events to be able to measure success and progress towards improving utility resilience	<ul style="list-style-type: none">• Potential to incorporate into Goal 1 and 2 to measure progress in reducing utility outages
Action 1.1 (Prioritize water resource protection from contamination and other natural hazards and support protection of green spaces near water table recharging areas) is included and recommended in the OSRP	<ul style="list-style-type: none">• Consider mentioning OSRP to demonstrate that plans are coordinating and supporting one another

Participant Comments	Responses during Webinar / How to address the comment in the HMP
<p>Question related to Action 2.1 (Complete GIS stormwater mapping and prepare for GIS work needed to comply with EPA stormwater regulations MS4): Stormwater Asset Management Plan has been developed, is this action already completed?</p>	<ul style="list-style-type: none">Review status of this action and relationship to Stormwater Asset Management Plan
<p>Are we focusing on shelter in place strategies or enhancing shelter capabilities and capacities? This would determine what the appropriate action moving forward will be.</p>	<ul style="list-style-type: none">Andrea stated that Acton will be prioritizing both and implementing actions that address both elementsAndrea emphasized that the goal is to: have robust shelters, make sure people are aware of the resources to keep themselves safe; provide more tools to enable individuals to manage climate hazards on their own and enhance preparedness (training on evacuation approach, emergency preparedness)
<p>Question related to Action 3.1 (Establish an annual water conservation campaign to education residents about conservation measures, encourage best practices to minimize water demand, and facilitate discussions around drought risk): Are we envisioning a program paralleling what the Acton Water District is already doing?</p>	<ul style="list-style-type: none">Andrea replied that the role of the Town is to elevate the work being done by AWDPotential for clarification here by replacing the word "Establish" or stating if the action will be in coordination with Acton Water District and elevating the work AWD is doing
<p>Where does the Acton Water District fit into this report? Acton Water District already has a Conservation Plan.</p>	<ul style="list-style-type: none">Consider integrating clarifications in the document to define the relationship between the Town and AWD, with respect to hazards
<p>Permit the use of yellow caution tape for roadway closures due to water or fallen tree hazards.</p>	
<p>Suggested addition and consideration for Goal 2 (prevent disruptions to public services, including utility services, municipal operations, and social services): consider studying the health of trees located near utility services as new diseases for trees might cause additional risk to utility disruption and increased flooding may cause a decline in tree health</p>	<ul style="list-style-type: none">Potential to include a new action to evaluate tree health



Participant Comments	Responses during Webinar / How to address the comment in the HMP
Is the risk of flash flooding considered? Is this included in the report?	<ul style="list-style-type: none">Consider integrating a definition of flash floodingOpportunity to include new actions related to flash flooding risk and increased risk awareness among community members<ul style="list-style-type: none">Evaluate areas at risk or identify roads that may not be passable in a flash flood (areas at risk include those with significant elevation changes or areas where vegetation is not in place to slow water flow)Increase awareness of areas that are at risk of flash flooding through signage at roadways that may be impassable during extreme precipitation events
Are historic resources that are at risk or potentially impacted described in the report?	<ul style="list-style-type: none">Elizabeth referred to the section of the report discussing Historic Resources in the Town of ActonPotential to integrate historic resources into actions under Goal 7 (prevent and reduce damage to property, infrastructure, and natural, cultural, economic, and social resources)
Does the report cover extreme heat? Information about cooling centers is not readily available (when are they open, where are they, ensuring that individual know they exist in Town). Enhance resources and communication for extreme heat events (reverse 911, identify populations at risk during heat events so town can directly connect with them). There is limited use of the cooling centers (potential staffing capacity issues, typically “close” at the end of the business day when it is often the hottest outside). Public Safety Facility (PSF) is open 24/7, but not necessarily staffed or adequately staffed.	<ul style="list-style-type: none">Consider emphasizing cooling center capacity and Town communications regarding cooling centers (Action 2.3 – emergency shelter capabilities; Action 3.2 – annual public outreach campaign; Action 3.3 – improve emergency communication)



Participant Comments	Responses during Webinar / How to address the comment in the HMP
Suggestion related to Goal 10 (Ensure that future development meets, or exceeds..., standards for preventing and reducing hazard impacts): address <i>undeveloped</i> land, not just developed areas. Encourage conservation and protection of undeveloped land and establish responsible practices for land development.	<ul style="list-style-type: none">Consider including undeveloped land into the language for Goal 10 and actions supporting this Goal
Suggestion related to Goal 12 (Consider the impacts of climate change and incorporate climate and resiliency into hazard mitigation planning): Additional actions related to climate change may include studying how habitats are changing and the associated impacts on tree health, crop production for farmers, etc.	<ul style="list-style-type: none">Potential to create a new action focusing on monitoring systems or research efforts on biodiversity and habitat health in the Town



Memorandum



To: Andrea Becerra

From: Elizabeth McCarthy

Company: Town of Acton

SLR International Corporation

cc: Corey York
Lauren West

Date: September 26, 2024

Project No. 149.14458.00007

RE: Acton Hazard Mitigation Plan Addressing Public Comments and Feedback

This memorandum summarizes the feedback received during the public comment period and recommendations on which are important to consider in the plan update and how to effectively address the comments.

- **Blue** highlight refers to comments that require confirmation of details or additional information from the Town of Acton to address
- **Green** highlight refers to comments that adjust existing actions or suggest additional actions to be included in the Mitigation Strategy, which would only be added with approval from the Town of Acton
- **Purple** highlight refers to comments that require language to be developed by the Town of Acton and shared with SLR to integrate into the document
- No highlight means that the comment is low priority to address, or that it can be addressed with limited lift (no additional information or confirmation from the Town to resolve)

While reading through the public comments, specifically those relating to additional actions within the Mitigation Strategy, it is important to remember that we are aiming to have a focused, feasible Mitigation Strategy. Consider the capacity of departments in Acton and priorities for the next few years related to hazard mitigation. We can combine actions or add language to existing actions to address feedback without creating new actions that may stretch departments too thin with regard to hazard mitigation.

Edits Discussed with Acton/SLR

Edit	Notes	Lead
Renumber actions to match the action numbers used in the Public Comment Webinar		SLR Completed
Executive Summary should list <i>all</i> hazards and <i>all</i> actions (include priority level, corresponding goal)		SLR Completed
Table 8-1 include a column describing the corresponding HMP Goal	Acton has identified the relationship between actions and goals (refer to the presentation created for the webinar) SLR will integrate into the table	SLR Completed
Make sure that the Actions and Goals are clearly defined in the document and executive summary (background color to call out)		SLR Completed

Memorandum



Edit	Notes	Lead
Table 4-13 (Hazard Risk Summary) needs clarification and description that data is statewide and pulled from SHMCAP methodology		SLR Completed

Comments Received During Public Comment Periods

Comment Received	Notes (Address/Not Address?)	Lead
I have seen invasive species added to HMPs (both plant and animal). I didn't see it in Acton's. MAPC recently included in Littleton and if I remember from my research, Lexington, Concord, Westford had similar invasive species hazards. (Amy Green)	<p>Address</p> <ul style="list-style-type: none"> Section will be added under the Climate Change section in Chapter 4 SLR to create a table describing at a high-level how invasive species will interact with each hazard Acton will provide language on invasive species impact and risk summary for Town <p>Invasive species management has consistently been major task for Acton's open space and recreational areas. Part of this effort is handled by dedicated volunteers of the Land Stewardship Committee, Friends of Acton Arboretum, OARS, community members, and staff from the Acton Conservation Division. In the past, these stakeholders have worked together to collaborate on educational opportunities, volunteer workdays, and long-term monitoring. Invasive species management has evolved into a more dynamic system in order to keep up with an expanding trail system, increased trail maintenance and acquisitions of open spaces. Some of those actions being taken are the following:</p> <ul style="list-style-type: none"> Development of education and outreach programs on invasive species and their impacts to local ecosystems has begun with a 2024 planned release; in order to prepare community members with best practices for removing and identifying invasive species on their properties Land Stewardship Committee, Town Staff, and volunteers 	SLR / Acton Completed

Memorandum



Comment Received	Notes (Address/Not Address?)	Lead
	<p>continue to work together on Conservation Lands identifying, tracking, and removing various invasive species such as garlic mustard (<i>Alliaria petiolata</i>), glossy buckthorn (<i>Frangula alnus</i>), Japanese knotweed (<i>Polygonum cuspidatum</i>), Norway maple (<i>Acer platanoides</i>), multiflora rose (<i>Rosa multiflora</i>), autumn olive (<i>Elaeagnus umbellata</i>), oriental bittersweet (<i>Celastrus orbiculatus</i>), Japanese barberry (<i>Berberis thunbergii</i>), the invasive bush honeysuckle species (such as <i>Lonicera tartarica</i>, <i>L. morrowii</i>, <i>L. bella</i>) and others. • Beginning in 2011 and as recently as 2023, dozens of volunteers, during multiple sessions per year, hand-pull water chestnut (<i>Trapa natans</i>) from Ice House Pond using canoes and kayaks.</p> <ul style="list-style-type: none">- The Acton Conservation Commission endorsed a series of Meadow Management plans developed by Oxbow Associates produced in 2013. This involved targeting invasive plant species by mowing, pulling, cutting, digging and employing the “cut and dab” method of herbicide application (when feasible). This meadow management approach has been extended to multiple other meadows and continues to lead ongoing conservation efforts. <p>In 2023, the Conservation Commission and Acton Conservation Division rejoined the regional invasive management group called the SuAsCo CISMA (Sudbury, Assabet, Concord Rivers Cooperative Invasive Species Management Area) as a supporting member and member of its steering committee</p>	

Memorandum



Comment Received	Notes (Address/Not Address?)	Lead
<p>Past events – noticed that the Town does not collect data on weather-related risks. Weather underground has a number of “volunteer” weather stations in Acton, including temperature, wind, and rain measurements. I think it would be worthwhile to see if the data from the citizen stations could be collected to start to form understanding of past events, or create an action to install weather monitoring stations.</p> <p>(David Shoemaker)</p>	<p>Consider</p> <ul style="list-style-type: none"> • Add the following action: “Acton will explore the possibility of installing a weather monitoring systems or a system to collect information from volunteer weather stations to inform future plans.” • If the action should be created, SLR can add to the Mitigation Strategy 	SLR / Acton Completed
<p>For Goal 7.3, can you add something to the effect of “get necessary permits with the Board of Health and Conservation Commission”</p> <p>(Olivia Barksdale)</p>	<p>Address</p> <ul style="list-style-type: none"> • Goal 7.3 addresses beaver dam best management practices 	SLR Completed
<p>Can you add a new action under Goal 7 to assess trees that may pose a hazard to infrastructure and personal safety and get necessary permits if needed.</p> <p>(Olivia Barksdale)</p>	<p>Address in coordination with comment received during public webinar</p> <ul style="list-style-type: none"> • Already did a Town-wide assessment of trees along the road. • Add the following action: Seek additional funding to complete actions in the “Public Tree Inventory Analysis and Maintenance Schedule” completed by the DPW in 2023. 	Acton to approve SLR to add Completed
Kristin Alexander – fix spelling of name	Address	Completed
<p>Mary Murphy from GIS helped collect the data, can Mary’s name be included in the Plan as part of the Team for the GIS office?</p> <p>(Kristin Alexander)</p>	<p>Address</p> <ul style="list-style-type: none"> • Add Mary’s name to the list of participants in LHMPT 	SLR Completed

Memorandum



Comment Received	Notes (Address/Not Address?)	Lead
<p>Concord Watershed (consistent referencing)</p> <p>Table 4.1-4.12 –</p> <p>Can we change it to Concord River Watershed to help readers understand it refers to a river?</p> <p>I think that you should explain that the state uses the term Concord Watershed to refer to the combined watershed of the Concord, Assabet, and Sudbury Rivers (SuAsCo Watershed) and Acton falls entirely within this watershed.</p> <p>(Alissa Nichol and Kim Kastens)</p> <p>Flooding 4.3.1.1 the term SuAsCo watershed is used. It is confusing to have both labels for the same watershed in the same document.</p> <p>(Kim Kastens)</p>	<p>Address</p> <ul style="list-style-type: none"> Consistently refer to the watershed as the <i>Concord Watershed</i>. Add description of the watershed prior to the tables included in the Climate Change section (4.1-4.12) to clarify that it is related to the Concord River Watershed not the neighboring community. 	<p>SLR Completed</p>
<p>Table 4-7 and 4-8, the numbers in the 4 seasons do not sum up to the annual number</p> <p>(Kim Kastens)</p>	<p>No action</p> <ul style="list-style-type: none"> The data is pulled from the state climate projections and were confirmed. Since they are projections/estimates they don't sum up, the projections provide likely ranges. 	<p>No action needed</p>
<p>Map on page 35 shows “Regulatory Floodway” but this is not defined in the set of definitions on the previous page</p> <p>(Kim Kastens)</p>	<p>Address</p> <ul style="list-style-type: none"> Include a definition of Regulatory Floodway in the table 	<p>SLR Completed</p>
<p>Figure 4-9 does not include purple in the map key</p> <p>(Kim Kastens)</p>	<p>Address</p> <ul style="list-style-type: none"> Portion of the map key was cut off in the layout Resolved 	<p>No action needed</p>
<p>Critical Facilities – the AWD facilities should be included in Table 4-38, they are on the map</p> <p>(Kim Kastens)</p>	<p>Address</p> <ul style="list-style-type: none"> Include Acton Water District Facilities in the critical infrastructure table 	<p>SLR to update the Critical Facilities table (Acton to confirm the AWD facilities included are accurate)</p>

Memorandum



Comment Received	Notes (Address/Not Address?)	Lead
Does the Acton Stream Team still exist? (pg. 91) (Kim Kastens)	<p>Address</p> <ul style="list-style-type: none"> Confirm whether this organization exists If not, remove references to the Stream Team in the document Replace with: "In addition, OARS, Green Acton, Water Resources Advisory Committee (WRAC), and other community groups and boards raise community awareness regarding issues facing water resources in the town." 	Acton to confirm SLR Completed
Pg. 91 – "They no longer use sand, which has made a tremendous impact by allowing less frequent cleaning of the basins". Does this mean no longer use sand to provide winter traction on slippery roads? Pg. 92 – what does the town use instead of sand during standard snow plow operations? (Kim Kastens)	<p>Address</p> <ul style="list-style-type: none"> What is being used instead of sand for winter storm preparations? Add the following for more context: The DPW used to mix salt with sand and spread it out. Approximately 15-20 years ago the DPW removed sand component, but didn't add additional salt. Continued to use the same amount of salt. The salt is mixed with chemical de-icer, which allows the salt to continue melting at lower temperatures. 	Acton to confirm sand replacement Completed
Pg. 91 – The town has GIS and has mapped the drainage system in GIS, which should be reflected in the capabilities of Drainage System Maintenance (Kim Kastens)	<p>Address</p> <ul style="list-style-type: none"> Is the drainage system mapped in the Town GIS program? Replace sentence on paper maps with the following: The Town has mapped its drainage system on GIS. 	Acton confirm GIS capabilities for drainage system Completed

Memorandum



Comment Received	Notes (Address/Not Address?)	Lead
<p>Effectiveness of Capabilities</p> <ul style="list-style-type: none"> Ongoing DPW Drainage Improvement Plan – SW asset management plan say that town needs to increase investment in drainage improvement, so effective may not be true Groundwater Protection Overlay District – the location was update to accommodate new wells, but the listing of activities that are prohibited in GWP zone have not been updated, and should be, specifically to include activities that may leak PFAS into the environment <p>(Kim Kastens)</p>	<p>Address</p> <ul style="list-style-type: none"> Determine whether the referenced capabilities should be deemed “effective” or “not effective” for hazard mitigation since the last plan update Page 60; page 55; Ask health if what includes hazardous materials – Zonin bylaw 	<p>Acton confirm effectiveness of listed capabilities</p> <p>SLR: Can you please review the general table; we are confused by the three different categories: effectiveness, recent improvements, changes needed</p> <p>I think this will help us address Kim's comment more effectively</p> <p>Andrea to check in with Kristen Guichard if there is a listing of activities that are prohibited in GWP zone that have not been updated.</p> <p>Effectiveness of Capabilities reviewed with Acton Team</p>
<p>Brushfire section – consider including an action to assess the adequacy of water supply for fighting brush fires of the severity that might occur under conditions of climate change, with its anticipated higher temperatures and drought</p> <p>(Kim Kastens)</p>	<p>Consider</p> <ul style="list-style-type: none"> Acton to determine whether the document should include an action to assess adequacy of water supply for fighting fires <p>In collaboration with the Acton Water District, assess the adequacy of water supply for firefighting, taking into consideration anticipated higher temperatures and drought events. As part of the assessment, quantify water needs and alternative sources of fire fighting water in and adjacent to Acton.</p>	<p>Acton</p> <p>Andrea to ask Acton Water District. They suggested adding the action listed.</p> <p>Completed</p>

Memorandum



Comment Received	Notes (Address/Not Address?)	Lead
<p>Clarify the relationship between the Town Government and the Acton Water District (Kim Kastens)</p>	<p>Address</p> <ul style="list-style-type: none"> Acton to provide language defining the relationship between AWD and the Town Government <p>The Acton Water District operates and maintains Acton's public water supply and distribution system, including managing new service connection requests. Concord Water District is the Town of Concord's water utility provider, which also provides water to some properties in Acton and oversees requests for new service connections to their respective water line. Fees and water use restrictions are determined by either AWD or CWD for customers connected to their respective water lines.</p> <p>On the Town Government side, the Land Use Department, Fire Department, and Select Board have roles in permitting and approval process for all construction activities within the Town. This includes approving permits for construction in groundwater protection zones. The Water Resources Advisory Committee advises the Select Board on issues relating to water resources. These stakeholders and those discussed above manage activity from existing properties and any new construction that may impact Acton's water resources.</p>	<p>Acton Completed</p>

Memorandum



Comment Received	Notes (Address/Not Address?)	Lead
Absence of AB School District representation on the team and in action items is surprising as they are a critical partner (Alissa Nicol)	<p>Confirm</p> <ul style="list-style-type: none">Acton to confirm whether representative was asked to join the LHMPT?Representatives for AHA, Community Services, and DEI were engagedSchool representative was discussed during the LHMPT meetingABRSD was invited to participate as an LHMPT and was followed up with directly in the lead up to the event.ABRSD participated in the HMP webinar the Town hosted in August.	Acton Completed

Memorandum



Comment Received	Notes (Address/Not Address?)	Lead
<p>Is there a note in the public engagement forums about efforts to reach historically excluded voices in the update process?</p> <p>Was there a specific effort made by Community Services Department, AHA, or ABUW to reach out to vulnerable populations? (Alissa Nicol)</p>	<p>Address</p> <ul style="list-style-type: none"> SLR - Include reference to efforts to make the public events accessible (food, free, open house style for flexible timing, and multiple ways to participate) Acton to confirm whether ABUW or other local organizations (Core Team etc.) were contacted about opportunities to engage with Hazard Mitigation engagement events Members of the Local Hazard Mitigation Planning Team included Community Services Director, Laura Ducharme, Peter Berry who represented the Acton Housing Authority Committee, and Wanjiku Gachugi Director of Diversity, Equity, and Inclusion. Efforts to promote the HMP through a variety of means to reach as many people included social media, hosting an in-person meeting at the library after working hours with free food, posting physical flyers across Town, and tabling at the Climate Resilience Festival, we regrettfully did not conduct direct outreach to Acton Boxborough United Way. Funding was limited for the Hazard Mitigation Planning process to conduct greater outreach. Funding and resources to include more voices in climate resilience planning is a cornerstone of other resilience planning efforts, including the Municipal Vulnerability Preparedness Planning efforts, which has much more funding allocated towards outreach. 	Acton / SLR Completed
GETS cards – define in the table/action (pg. 4) (Alissa Nicol)	Address <ul style="list-style-type: none"> Government Emergency Telecommunications Service (GETS) 	SLR Completed

Memorandum



Comment Received	Notes (Address/Not Address?)	Lead
Consistency with referring to Acton Villages (pg. 8 refers to 3 villages, pg. 78 references 5 centers) (Alissa Nicol)	<p>Address</p> <ul style="list-style-type: none"> Acton to confirm the number and names of Acton Villages to be referenced in the document for consistency and accuracy Page 8 references the historical village centers West Acton Village, South Acton Village and Acton Center. Modify this to include four village centers and include East Acton Village given this sentence is referencing historical development patterns and there was a train station in EAV, ice house pond and other businesses etc. (WAV, SAV and Acton Center are the historic districts, but it appears this paragraph is about development patterns) Page 78 "key centers in Acton include...." Reads accurately compared to how the Acton 2020 plan references areas. Powder Mill Corridor should be added to the list of commercial areas. 	Acton Completed
<p>Acton Community Profile</p> <ul style="list-style-type: none"> (pg. 78) – can we replace “rural character” with “rural features” or “rural elements”? Can we specify that the goal is to preserve the “remaining rural features”? Maybe a change to “historic, cultural, and rural resources” would be best. Pg. 9 – Can we replace “small-town character” with “small-town feel” <p>(Alissa Nicol)</p>	<p>Confirm</p> <ul style="list-style-type: none"> Language can remain the same OR language can be updated to reflect the suggestion Acton to confirm preferred approach (rural character vs. elements) Change language to match the suggestions made for page 78. On page 9, change to “small-town spirit.” 	Acton Completed
<p>Climate Change Section</p> <p>4.1.1 – Can we include the average number of days the temperature drops below 2 degrees and rises above 91 degrees rather than just “rarely”?</p> <p>4.1.2 – Can we replace likely to be exacerbated with “will be exacerbated”?</p> <p>(Alissa Nicol)</p>	<p>Address</p> <ul style="list-style-type: none"> SLR has information to update this Climate Change section 	SLR Completed

Memorandum



Comment Received	Notes (Address/Not Address?)	Lead
<p>Dam Failures Select Board voted recently to breach the Robbins Mill Dam, not repair or remove. Nagog Pond Dam description seems to contradict – “The dam appears to be in good condition and has not caused any concerns. DCR classifies this as a significant hazard dam”. Should we put the DCR classification before the descriptions? (Alissa Nicol)</p>	<p>Confirm</p> <ul style="list-style-type: none"> Acton to confirm decision of Select Board (confirmed); Add the following comment on page 32: The Select Board voted to breach the Robbins Mill Dam. Acton to confirm that the Nagog Pond Dam has been in good condition and not of concern to the Town; put DCR classification before the descriptions. SLR to clarify the description of Nagog Pond Dam 	Acton SLR Completed
<p>Table 36 Wellfield – is it accurate to say “town owned and operated” or should AWD be called out as the owner/operator? (Alissa Nicol)</p>	<p>Confirm</p> <ul style="list-style-type: none"> Acton to confirm appropriate reference to owner and operator of wellfields Change to “This AWD-owned and operated well.” 	Acton Completed
<p>Page 72 Can “severe, long-term drought” be defined? (Alissa Nicol)</p>	<p>Address</p> <ul style="list-style-type: none"> Long-term drought typically refers to precipitation deficits that last for more than 6 months 	SLR Completed
<p>Pg. 79 Only the Discovery Museum is listed as a cultural asset. There are many others to include (Faulkner Homestead, Jones Tavern, YP Museum, Hosmer House, Isaac Davis Monument and trail, cemeteries, Exchange Hall, art galleries, NARA Park, Acton Arboretum, libraries, churches). If they are not listed, maybe remove the sentence? (Alissa Nicol)</p>	<p>Address</p> <ul style="list-style-type: none"> Acton to confirm list of cultural assets in Town (or if the cultural asset should not be referenced) Please add those listed in the OSRP draft found on page 77 	Acton Completed
<p>Pg. 90 Can we list “Land Protection” in addition to “Land Acquisition” efforts and list Acton Conservation Trust efforts to encourage property owners to place CR on their properties and gift parcels to the town? (Alissa Nicol)</p>	<p>Confirm</p> <ul style="list-style-type: none"> Is it accurate to say land protection and land acquisition efforts? If yes, SLR can include in the description. Yes, this is accurate. 	Acton Completed

Memorandum



Comment Received	Notes (Address/Not Address?)	Lead
<p>Pg. 91 Natural Resources Commission should be Conservation Commission Pg. 99 Natural Resources should be Conservation in the list of departments. (Alissa Nicol)</p>	<p>Confirm</p> <ul style="list-style-type: none"> Should we refer to the Natural Resources Commission or the Conservation Commission? Please update these as requested. Suggestions are correct. 	Acton Completed
<p>Pg. 97 Number of acres of Open Space protected using CPA funding should be listed rather than or in addition to the dollar value (\$5M) (Alissa Nicol)</p>	<p>Address, if data is available</p> <ul style="list-style-type: none"> If the number of acres of Open Space protected under the CPA is available, the value can be included in the document Since 1960, Acton has acquired more than 2,000 acres of permanently protected land. This has been made possible by the CPA, local fundraising, donations of land, and through cluster development zoning. The Conservation Commission is responsible for approximately 1,645 acres, and the Acton Water District oversees another 400 acres. 	Acton Completed
<p>Pg. 105 Consider another inter-community effort to reduce road de-icer to address increasing salinity in surface/groundwater. Another might be addressing overuse of fertilizers, pesticides, herbicides, and algaecides that degrade water supplies (water park, golf courses, large multi-family developments)</p>	<p>Consider</p> <ul style="list-style-type: none"> Would the Town like to add another action targeting reduced de-icer use to address increasing salinity in surface/groundwater (Goal 1)? Edit Action 1.1 to read: Prioritize water resource protection from contamination, pollutants, and other natural hazards, and support protection of green spaces near water table recharging areas as recommended in the 2022 Climate Action Plan. Add Action 9.3: Identify opportunities to work with surrounding communities on surface/groundwater resource protection. 	Acton Completed

Memorandum



Notes from Public Webinar

Participant Comments	Responses during Webinar / How to address the comment in the HMP	Lead
Likelihood of Drought in Table 4-13 didn't seem reflective of Acton's climate and frequency of hazard	<ul style="list-style-type: none"> Elizabeth explained that the likelihood is based on methodology from the SHMCAP and reflects statewide risk summary Consider whether update to HMP needs to include a clear description that the information for the hazard summary table is pulled from the state plan and displays statewide risk 	SLR to clarify in document Completed
List the number of utility outages per year related to recent storm events to be able to measure success and progress towards improving utility resilience	<ul style="list-style-type: none"> Potential to incorporate into Goal 1 and 2 to measure progress in reducing utility outages 	Acton to confirm whether this information is available / feasible to include in actions
Action 1.1 (Prioritize water resource protection from contamination and other natural hazards and support protection of green spaces near water table recharging areas) is included and recommended in the OSRP	<ul style="list-style-type: none"> Consider mentioning OSRP to demonstrate that plans are coordinating and supporting one another 	SLR Completed
Question related to Action 2.1 (Complete GIS stormwater mapping and prepare for GIS work needed to comply with EPA stormwater regulations MS4): Stormwater Asset Management Plan has been developed, is this action already completed?	<ul style="list-style-type: none"> Review status of this action and relationship to Stormwater Asset Management Plan Edit to "Continue to update GIS stormwater mapping & prepare for GIS work needed to comply with EPA stormwater regulations (MS4):" 	Acton to confirm whether this action has been completed (stormwater assets included in GIS) Completed
Are we focusing on shelter in place strategies or enhancing shelter capabilities and capacities? This would determine what the appropriate action moving forward will be.	<ul style="list-style-type: none"> Andrea stated that Acton will be prioritizing both and implementing actions that address both elements Andrea emphasized that the goal is to: have robust shelters, make sure people are aware of the resources to keep themselves safe; provide more tools to enable individuals to manage climate hazards on their own and enhance preparedness (training on evacuation approach, emergency preparedness) 	SLR (no action needed, but worthwhile mentioning this in summary of public webinar)

Memorandum



Participant Comments	Responses during Webinar / How to address the comment in the HMP	Lead
<p>Question related to Action 3.1 (Establish an annual water conservation campaign to education residents about conservation measures, encourage best practices to minimize water demand, and facilitate discussions around drought risk): Are we envisioning a program paralleling what the Acton Water District is already doing?</p>	<ul style="list-style-type: none"> Andrea replied that the role of the Town is to elevate the work being done by AWD Potential for clarification here by replacing the word "Establish" or stating if the action will be in coordination with Acton Water District and elevating the work AWD is doing Edit to read "Support and elevate Acton Water District water conservation campaigns..." 	<p>Acton to confirm phrasing of this action to align with responsibilities of AWD and the Town</p> <p>Completed</p>
<p>Where does the Acton Water District fit into this report? Acton Water District already has a Conservation Plan.</p>	<ul style="list-style-type: none"> Consider integrating clarifications in the document to define the relationship between the Town and AWD, with respect to hazards 	<p>Addressed in earlier public comment received.</p>
<p>Permit the use of yellow caution tape for roadway closures due to water or fallen tree hazards.</p>		<p>No action needed</p>
<p>Suggested addition and consideration for Goal 2 (prevent disruptions to public services, including utility services, municipal operations, and social services): consider studying the health of trees located near utility services as new diseases for trees might cause additional risk to utility disruption and increased flooding may cause a decline in tree health</p>	<ul style="list-style-type: none"> Potential to include a new action to evaluate tree health 	<p>Addressing in coordination with another comment received regarding assessing tree health and risk to population/infrastructure (under Goal 7)</p>

Memorandum



Participant Comments	Responses during Webinar / How to address the comment in the HMP	Lead
Is the risk of flash flooding considered? Is this included in the report?	<p>Include new actions</p> <ul style="list-style-type: none"> • Consider integrating a definition of flash flooding • Opportunity to include new actions related to flash flooding risk and increased risk awareness among community members <ul style="list-style-type: none"> ◦ Evaluate areas at risk or identify roads that may not be passable in a flash flood (areas at risk include those with significant elevation changes or areas where vegetation is not in place to slow water flow) ◦ Increase awareness of areas that are at risk of flash flooding through signage at roadways that may be impassable during extreme precipitation events 	<p>Acton to consider the proposed actions and confirm whether to include or exclude from the document update</p> <p>Current definition of flash flooding that is included in the document can be clarified / called out</p> <p>Completed</p>
Are historic resources that are at risk or potentially impacted described in the report?	<ul style="list-style-type: none"> • Elizabeth referred to the section of the report discussing Historic Resources in the Town of Acton • Potential to integrate historic resources into actions under Goal 7 (prevent and reduce damage to property, infrastructure, and natural, cultural, economic, and social resources) 	<p>SLR to include "historic" resources under Goal 7 language</p> <p>Completed</p>

Memorandum



Participant Comments	Responses during Webinar / How to address the comment in the HMP	Lead
<p>Does the report cover extreme heat? Information about cooling centers is not readily available (when are they open, where are they, ensuring that individual know they exist in Town). Enhance resources and communication for extreme heat events (reverse 911, identify populations at risk during heat events so town can directly connect with them). There is limited use of the cooling centers (potential staffing capacity issues, typically “close” at the end of the business day when it is often the hottest outside). Public Safety Facility (PSF) is open 24/7, but not necessarily staffed or adequately staffed.</p>	<ul style="list-style-type: none"> Consider emphasizing cooling center capacity and Town communications regarding cooling centers (Action 2.3 – emergency shelter capabilities; Action 3.2 – annual public outreach campaign; Action 3.3 – improve emergency communication) Edit Action 2.3 by adding another line at the end of this action that reads “This includes identifying and establishing shelter/s that are open during adequate times (i.e. during the hottest hours of the day), can be reached by public transportation, and that the space is adequately staffed.” Edit Action 3.3 to read: “Improve emergency communication, including reverse 911 calls, during extreme heat, winter storms or other severe weather events, with a focus on difficult-to-reach populations (isolated individuals, vulnerable populations, non-English speakers). Conduct engagement and workshops with populations vulnerable to weather events to address communication challenges.” 	<p>Acton read language in Action 3.2 and confirm that it adequately addresses concerns related to cooling center capabilities and awareness</p> <p>Completed</p>
<p>Suggestion related to Goal 10 (Ensure that future development meets, or exceeds..., standards for preventing and reducing hazard impacts): address <i>undeveloped</i> land, not just developed areas. Encourage conservation and protection of undeveloped land and establish responsible practices for land development.</p>	<ul style="list-style-type: none"> Consider including undeveloped land into the language for Goal 10 and actions supporting this Goal Undeveloped lands are addressed in Action 10.1. 	<p>Acton confirm whether Goal 10 should refer to developed and undeveloped land</p> <p>No action necessary</p>

Memorandum



Participant Comments	Responses during Webinar / How to address the comment in the HMP	Lead
<p>Suggestion related to Goal 12 (Consider the impacts of climate change and incorporate climate and resiliency into hazard mitigation planning): Additional actions related to climate change may include studying how habitats are changing and the associated impacts on tree health, crop production for farmers, etc.</p>	<ul style="list-style-type: none">• Potential to create a new action focusing on monitoring systems or research efforts on biodiversity and habitat health in the Town• Action 12.2: Explore the development of a monitoring system to track biodiversity and habitat health.	<p>Acton confirm whether an action should be added under Goal 12 related to habitat / ecosystem health and climate change, specifically in Acton</p> <p>Completed</p>

Memorandum



Goal 1 suggestions	<ul style="list-style-type: none">Thinking about locations that are community centers/hubs (playgrounds, trails, schools)Resource centers that offer power, food, etc. are a major benefit during stormsFocus on local businesses and transportationProactive maintenance of trees to prevent damage and injury, especially along rail trailsDebris collection following large weather events, offering collection at Transfer Station and maybe offer trucks to collect debris throughout town	<p>Acton confirm approach and best way to integrate into Goal 1 actions / language</p> <p>Completed (new actions created to include these suggestions, recommended Action 1.6 was not created as it is an existing capability so the language was pulled into the Capabilities section)</p>
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Memorandum



Participant Comments	Responses during Webinar / How to address the comment in the HMP	Lead
	assessment and we utilize this info to prioritize some of our work	
Consider increased electrification and impact to heating, cooling, and EV infrastructure under Goal 2	<ul style="list-style-type: none"> Consider if the town wants to include electrification impacts in Goal 2 This is already addressed in an action 	Acton to confirm Completed (addressed in another action)
Goal 5 suggestions <ul style="list-style-type: none"> Follow up on the recently completed Comprehensive Emergency management Plan and conduct trainings/exercises for interagency responses Expand focus beyond water to align with the broader goal on hazard mitigation Consider including HMP in the new Acton Economic Development Plan Ensure signage is secure and located in safe areas in case of weather events 	<ul style="list-style-type: none"> Consider integration of suggestions into existing actions under Goal 5 Add Action 5.3: "Integrate the efforts of the Town of Acton Comprehensive Emergency Management Plan and support efforts to conduct trainings/exercises for interagency responses." Edit Action 5.1 to read "Conduct workshops and tabletop exercises with Town departments, the Acton Water District, and Acton-Boxborough Regional School District to develop a clear plan during natural hazard emergencies, such as droughts, storms, and floods." Add: Action 5.4: Integrate HMP and other climate resilience goals in the Acton Economic Development Plan. Add the following action to goal 2: Action 2.5: Ensure signage is secure and located in safe areas in case of weather events. 	Acton confirm approach and best way to integrate into Goal 5 actions / language Completed

Memorandum

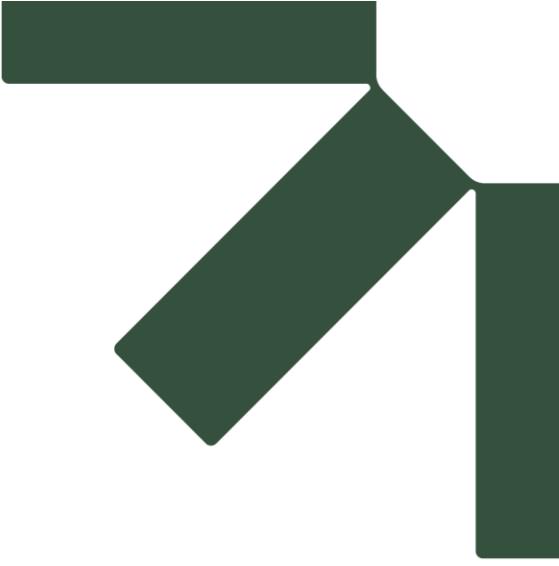


Participant Comments	Responses during Webinar / How to address the comment in the HMP	Lead
<p>Goal 8 suggestions</p> <ul style="list-style-type: none"> • Modify to include public and private outreach related to general HMP goals • Ensure properties along railroad tracks, railroad street, and Route 2 are protected from hazards 	<ul style="list-style-type: none"> • Consider integration of suggestions into existing actions under Goal 8 • Edit Action 8.1 to read: "Conduct public outreach and education to public and private entities to increase responsible land management practices and minimize risk of brushfires" • The HMP prioritizes all properties throughout Acton, with a geographic focus when it comes to specific hazards, like flooding that may impact certain parts of Town more than others. 	<p>Acton confirm approach and best way to integrate into Goal 8 actions / language</p> <p>Completed</p>
<p>Suggest reviewing existing bylaws and regulations as an action under Goal 10 (ensure future development meets standards and explore advanced standards)</p>	<ul style="list-style-type: none"> • Consider integration of action to review existing Zoning and Regulations that align with Hazard Mitigation and Resiliency goals • Add: Action 10.2: Assess and ensure Zoning and Regulations align with Hazard Mitigation and Resiliency goals. 	<p>Acton to confirm</p> <p>Completed</p>
<p>Suggestion to name local groups and organizations that are instrumental to support education and outreach efforts under Goal 11</p>	<ul style="list-style-type: none"> • Acton consider if specific organizations should be referenced • For many of these goals and actions Acton will lean on multiple entities and stakeholders—the list varies by goal and is quite comprehensive. For the purpose of keeping goals shorter and concise, this is captured by Goal 8: "Work with multiple stakeholders, including Acton residents, businesses, institutions, developers, community-based organizations, lands trusts, representatives of vulnerable populations and non-profits to develop and implement the hazard mitigation plan." 	<p>Acton to confirm</p> <p>Completed</p>

Memorandum



Participant Comments	Responses during Webinar / How to address the comment in the HMP	Lead
<p>Goal 12 suggestions to consider climate change impacts</p> <ul style="list-style-type: none"> • Use messages that can reach all residents and people, ensuring technology and language accessibility • Ensure stormwater infrastructure can handle changing climate and impacts of major storm events 	<ul style="list-style-type: none"> • Consider integration of suggestions into existing actions under Goal 12 • Outreach and communication actions are addressed by Actions 3.2 and 3.3 within Goal 3: “Promote equity and environmental justice priorities...”; as well as Goal 11: “Conduct meaningful engagement and education...” • Edit Action 12.1 to read: “Conduct a town-wide flood study to identify flood vulnerabilities and identify resilience measures. As part of this assessment ensure stormwater infrastructure can handle changing climate and impacts from major storm events.” 	<p>Acton confirm approach and best way to integrate into Goal 12 actions / language</p> <p>Completed</p>
<p>Consider Friends of Bruce Freeman trail to supply funding for mitigation efforts (Goal 4)</p>	<ul style="list-style-type: none"> • Consider including Friends of Bruce Freeman trail or other partners to increase access to funding • This is addressed under Goal 8 to work with multiple stakeholders, including Acton residents, businesses, institutions, developers, community-based organizations, lands trusts, representatives of vulnerable populations and non-profits to develop and implement the hazard mitigation plan. 	<p>Acton to confirm</p> <p>Completed</p>
<p>Recreation Commission requested a written protocol for recreational areas when there's a natural disaster.</p> <p>For example, if we get a hurricane, then someone from the Rec Dept needs to visit each Rec site and document any damage and then report it to whoever for maintenance, etc.</p>	<ul style="list-style-type: none"> • Add Action 2.5 under Goal 2: • Explore the development of a written protocol to address recreation areas before and after a natural disaster. This includes inspecting recreation sites after a storm and reporting any damages to Operations. 	<p>Acton</p>



Appendix C

Plan Adoption

**CERTIFICATE OF ADOPTION
SELECT BOARD
TOWN OF ACTON, MASSACHUSETTS**

*A RESOLUTION ADOPTING THE TOWN OF ACTON
ADOPTING THE HAZARD MITIGATION PLAN 2024 UPDATE*

WHEREAS the Town of Acton recognizes the threat that natural hazards pose to people and property within the Town of Acton; and

WHEREAS the Town of Acton has prepared a multi-hazard mitigation plan, hereby known as the *Town of Acton Hazard Mitigation Plan 2024 Update* in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

WHEREAS the *Town of Acton Hazard Mitigation Plan 2024 Update* identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the Town of Acton from the impacts of future hazards and disasters; and

WHEREAS adoption by the Select Board demonstrates its commitment to hazard mitigation and achieving the goals outlined in the *Town of Acton Hazard Mitigation Plan 2024 Update*.

NOW THEREFORE, BE IT RESOLVED BY THE TOWN OF ACTON, MASSACHUSETTS THAT:

Section 1. In accordance with M.G.L 40 §4 or the charter and bylaws of the Town of Acton, the Town of Acton Select Board adopts the *Town of Acton Hazard Mitigation Plan 2024 Update*. While content related to the Town of Acton may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the Town of Acton Select Board to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

ADOPTED by a vote of _____ in favor and _____ against, and _____ abstaining, this _____ day of _____, _____.

By: _____ (print name)

ATTEST: By: _____ (print name)

APPROVED AS TO FORM: By: _____ (print name)