

Appendix A

Local Hazard Mitigation Plan Team

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



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



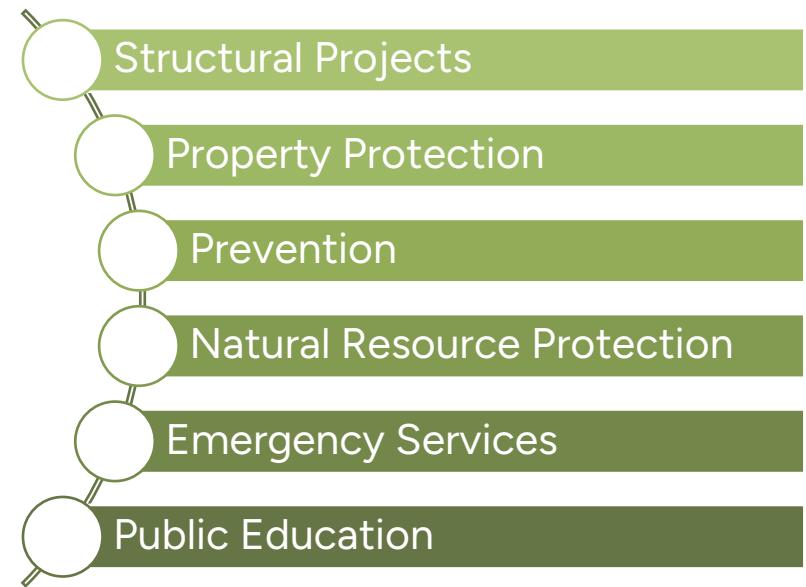
What are talking about when we say “hazard”? What is mitigation?

Hazard

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

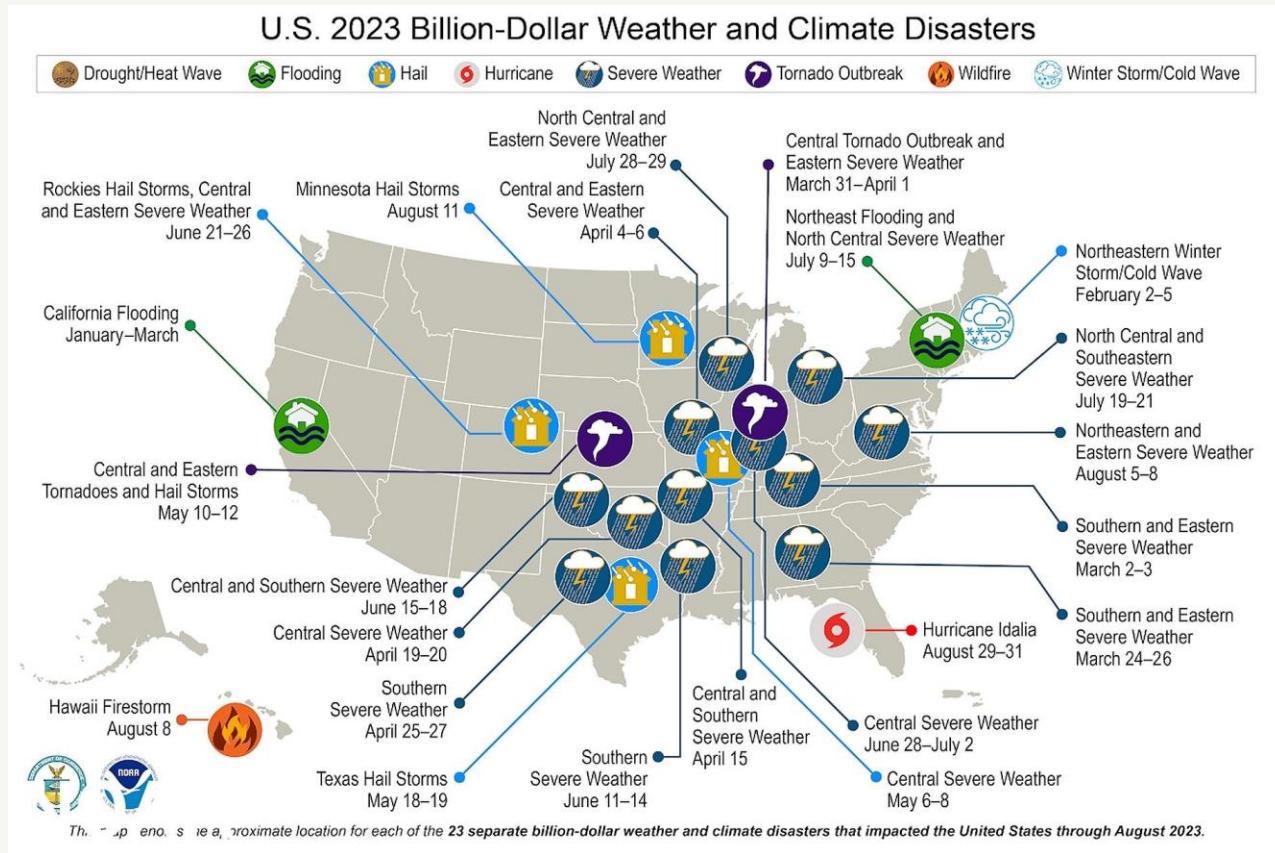
Mitigation

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 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.)

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- Private Properties

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

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

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- Vulnerable Critical Facilities

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| |

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.)

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| |

- 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:

| |
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| |
| |

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.)

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- 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:

| |
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| |
| |

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.)

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| |

- 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:

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| |
| |

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.)

| |
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| |
| |

- 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:

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| |

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.)

| |
|--|
| |
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- 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.)

| |
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| |

- 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

| |
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| |
| |

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

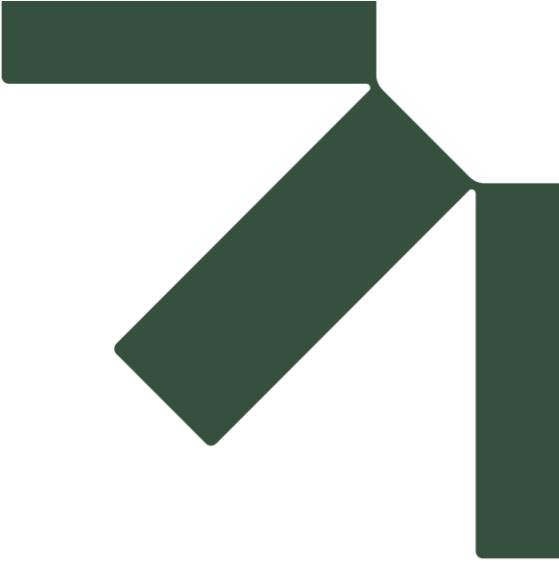
Andrea Becerra (she/her)

Sustainability Director

Town of Acton, MA

(978) 929-6515

actonma.gov/sustainability



Appendix B

Public Input and Engagement

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

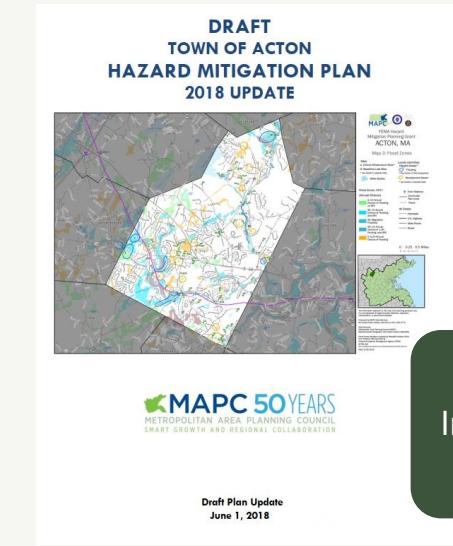


Develop long-term
strategies to protect people
& property





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

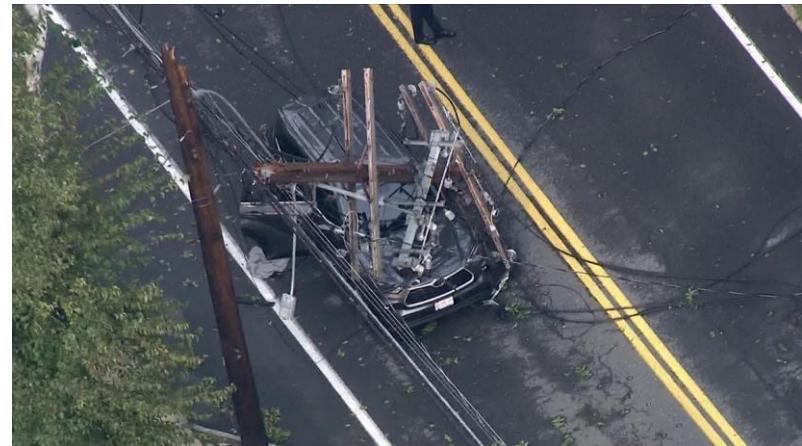
- Capacity & Staff
- Sheltering

Local Hazard Concerns

Microburst Damage



Source: CBS Boston (Sept. 8, 2023)



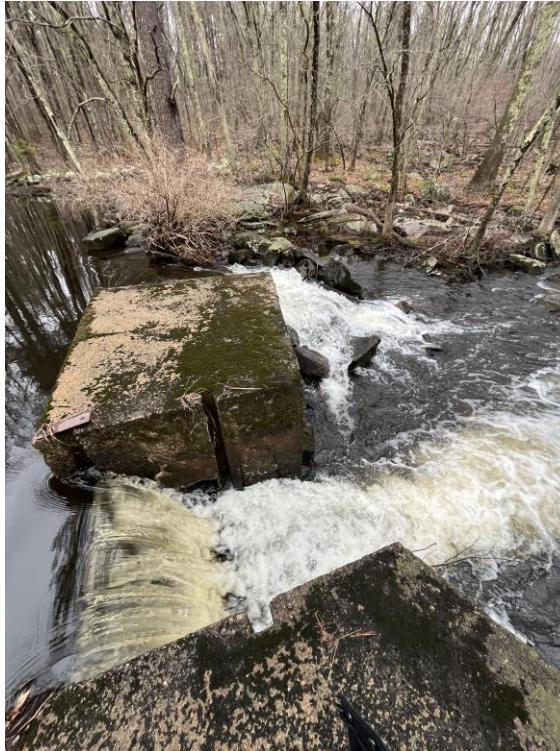
Source: WCVB





Local Hazard Concerns

Bellows Farm Dam





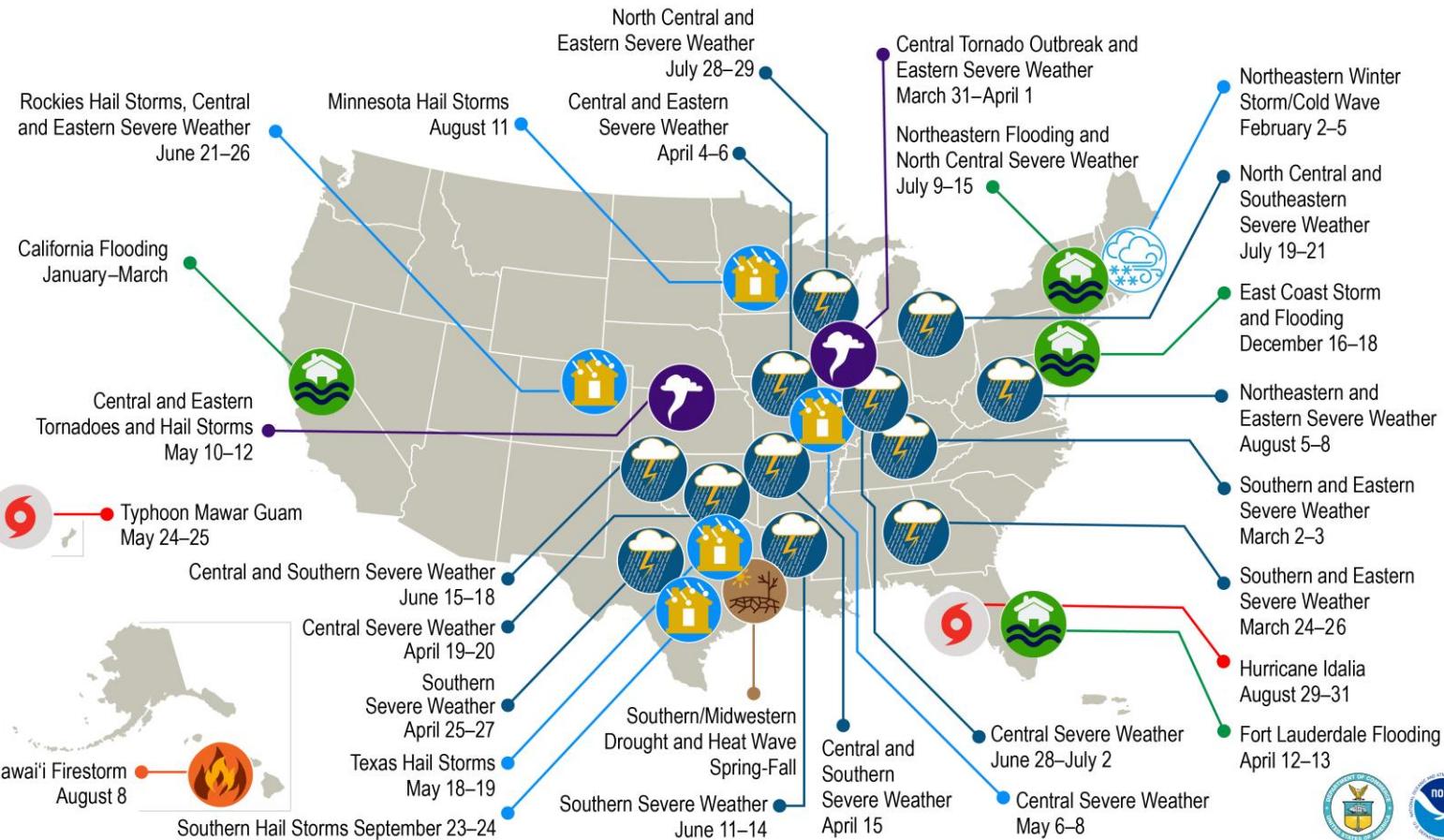
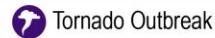
Local Hazard Concerns

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

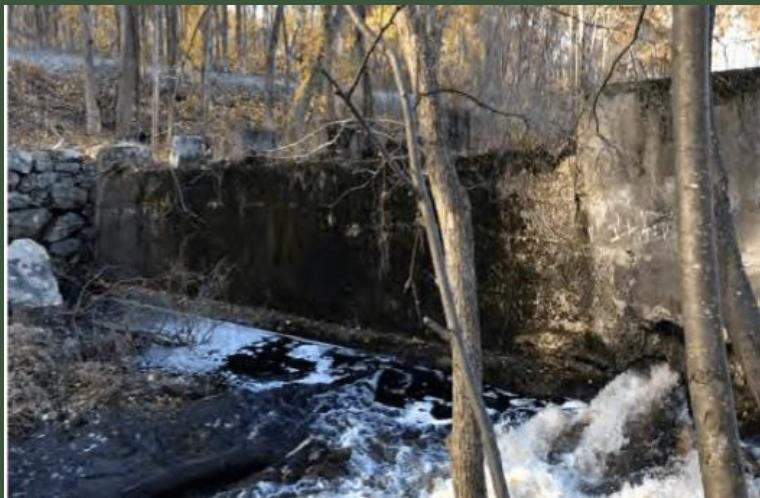


Example Actions

River Street Dam Removal



Source: John Guilfoil Public Relations

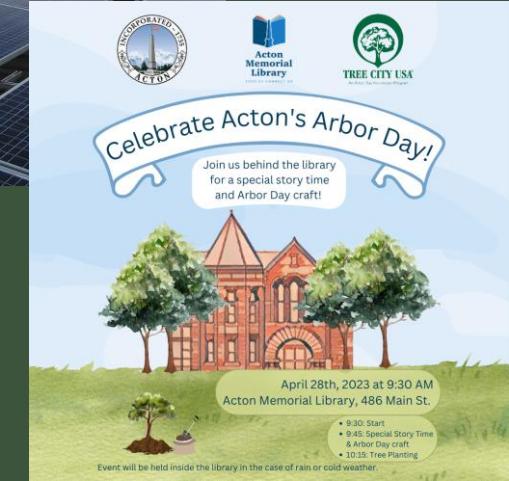


Not for construction. Part of a student project, and not based on



Example Actions

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





TELL US WHAT YOU THINK

VISIT THE OTHER STATIONS TO PROVIDE
FEEDBACK.



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Budget

Elections

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Kelley's Corner Construction Updates

Town Meeting

North Acton Fire Station Project

Licenses & Permits

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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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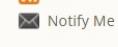
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We want your input!

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

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.



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



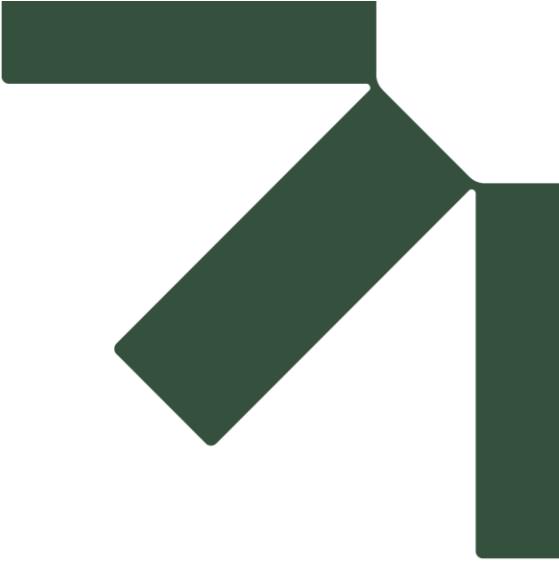
Featured Organizations and Initiatives

- 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!





Appendix C

Plan Adoption