

Town of Bedford Municipal Vulnerability Preparedness and Hazard Mitigation Plan

Presented By:



BEALS+THOMAS

Virtual Public Input Opportunity

Municipal Vulnerability Preparedness (MVP) Program

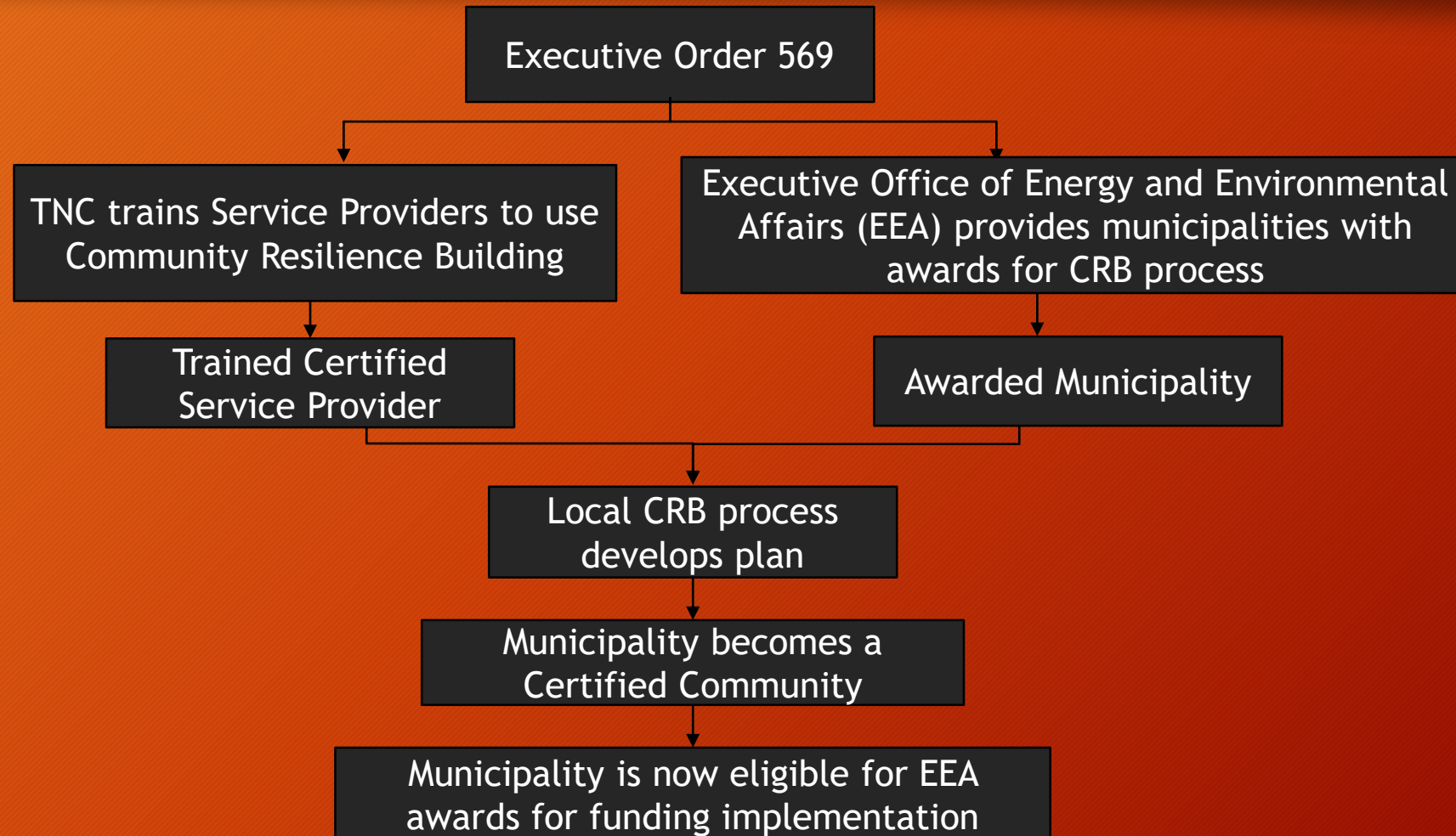


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MVP Overview



Municipal Hazard Mitigation Plan

- Update to 2010 Plan completed using funds from MVP Planning Grant
- Approved by both Massachusetts and Federal Emergency Management Agencies; update required every 5 years
- Required for municipalities to receive FEMA funding for non-emergency disaster assistance
- Must address natural hazards outlined in the Massachusetts Integrated State Hazard Mitigation and Climate Adaptation Plan



FEMA



Mitigation Planning Benefits

- A process for communities to identify policies, activities and tools to implement mitigation actions
 - Increases awareness of vulnerabilities
 - Promotes safety and welfare of communities and citizens
 - Cultivates community commitment to mitigation
- Lack of hazard awareness and mitigation plan could lead to unnecessary losses to infrastructure and critical facilities and potential human casualties

Town of Bedford MVP Designation Schedule

Core Team Establishment of Approach:
July 25, 2019

CRB Workshop: December 11, 2019

Public Listening Session: March 4, 2020

Plan Drafting and Finalization:
April 2020 - May 2021

Virtual Public Input Opportunity: May 2021

Final Report: June 2021

Draft Hazard Mitigation Plan Overview

- Section I: Introduction
 - Definitions and MVP Background
- Section II: Planning Process and Public Participation
 - Intro to Local Planning Process and Public Participation
 - Overview of CRB Workshop
 - Public Input Opportunities
- Section III: Community Profile
 - Existing Land Use and Plans
 - Discussion of Potential Future Land Use
 - Other Local and Regional Planning Initiatives
- Section IV: Overview of Hazards and Vulnerabilities
 - Overview of Hazards and Impacts
 - Critical Facilities and Specific Areas of Community Concern
- Section V: Existing Mitigation Measures
- Section VI: Hazard Mitigation Goals
- Section VII: Potential Mitigation Measures Identified
 - Top Priority Actions
 - The Action Plan
- Section VIII: Plan Adoption and Maintenance

Section I: Introduction

- What is hazard mitigation planning?
- Previous hazard mitigation planning completed by Bedford
 - 2010 Hazard Mitigation Plan
 - 2019 MVP Planning Grant
- Goals for the HMP Update and CRB Workshop Summary of Findings Report



Section II: Planning Process and Public Participation

CRB Workshop Objectives

- Define extreme weather and natural and climate-related hazards
- Identify existing and future vulnerabilities and strengths
- Develop and prioritize actions for the community and broader stakeholder networks
- Identify opportunities for the community to advance actions to reduce risks and build resilience.



Overview of the CRB Workshop Process

DURING WORKSHOP

A Prepare for the Workshop

- 1 Establish a core team with goals.
- 2 Engage stakeholders.
- 3 Prepare materials for workshop.
- 4 Decide on participant arrangements.

B Characterize Hazards

- 1 Identify past, current, and future impacts.
- 2 Determine the highest-priority hazards.

C Identify Community Vulnerabilities and Strengths

- 1 Identify infrastructural vulnerabilities and strengths.
- 2 Identify societal vulnerabilities and strengths.
- 3 Identify environmental vulnerabilities and strengths.

D Identify and Prioritize Community Actions

- 1 Identify and prioritize infrastructural actions.
- 2 Identify and prioritize societal actions.
- 3 Identify and prioritize environmental actions.

E Determine the Overall Priority Actions

- 1 Identify highest-priority actions.
- 2 Further define urgency and timing.

F Put It All Together

- 1 Generate final workshop products.

G Move Forward

- 1 Continue community outreach and engagement.
- 2 Secure additional data and information.
- 3 Inform existing planning and project activities.

Community Components



Infrastructural



Societal



Environmental

Section III: Community Profile

Existing Land Uses

Existing Plans

- Stormwater Management Plan, 2019
- Bedford Comprehensive Emergency Management Plan, 2017
- Climate Change and Resiliency Plan, 2017
- Bedford Pedestrian and Bicycle Plan, 2015
- Bedford Comprehensive Plan, 2013
- Town of Bedford Tree Policy
- Open Space and Recreation Plan 2004-2008
- Sudbury - Assabet - Concord River Watershed Action Plan, 2005
- Bedford Community Development Plan, 2004

Potential Future Land Use

- 170 & 172 Middlesex Turnpike
- LCB Senior Living, “The Residences at Bedford” - 240-244 South Road
- Minuteman Bikeway Extension Project

Section IV: Overview of Hazards and Vulnerabilities

Flood-Related Hazards

Sea Level Rise

Average and Extreme Temperatures

Drought

Wildfire

Landslides

Tsunami

Invasive Species

Hurricanes/Tropical Storms

Severe Winter Storm/Nor'easter

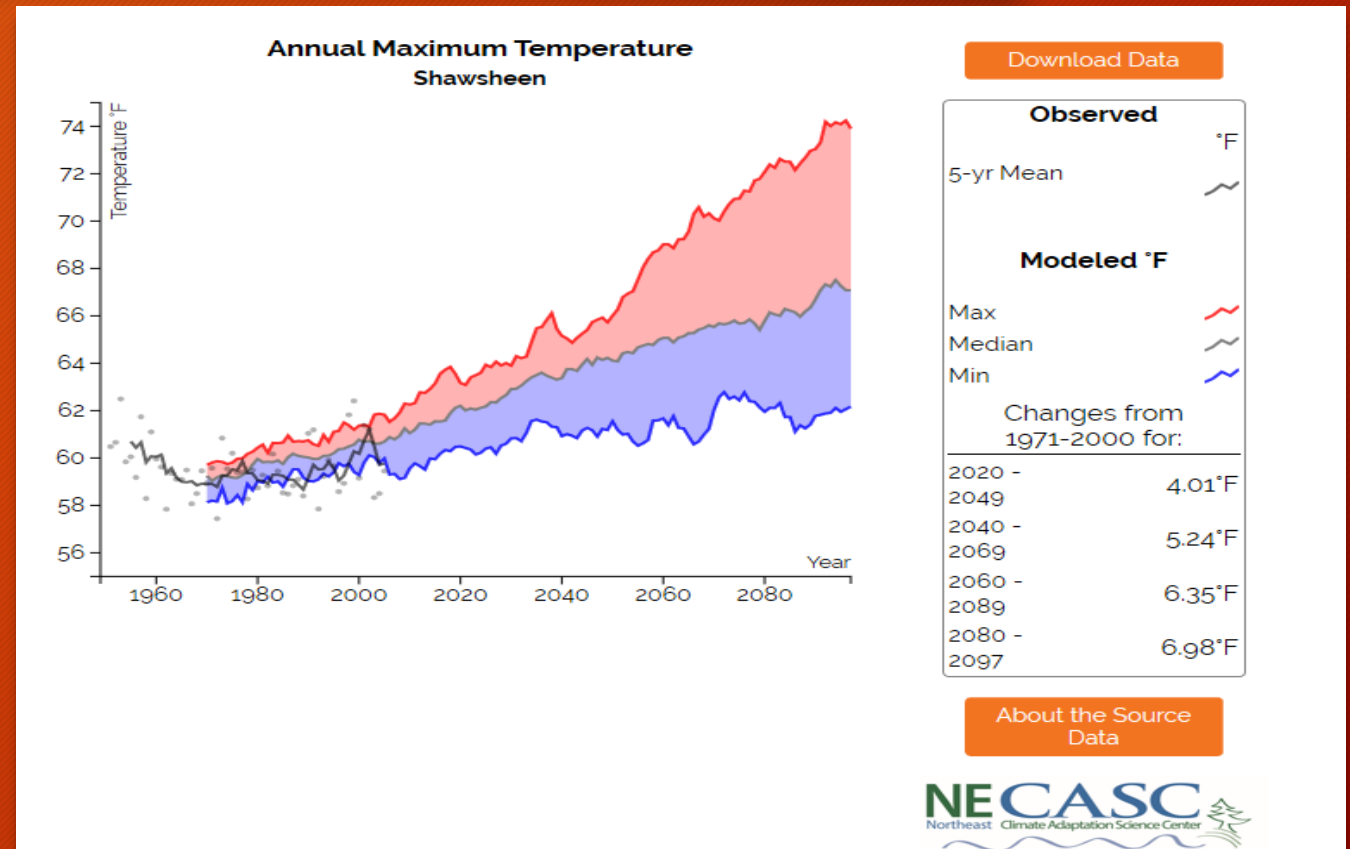
Tornadoes/Microbursts

Severe weather

Earthquakes

Overview of Hazards and Vulnerabilities

- Definition of hazards and their interaction with climate change
 - Changes in precipitation
 - Sea level rise
 - Rising temperatures
 - Extreme weather
 - Non-climate influenced hazards
- Past occurrences of hazards in Bedford
- Potential impacts resulting from hazards
 - Extent of damages, where possible



Hazards Prioritized by the CRB Workshop



- Flooding and Extreme Precipitation
- Heat, Drought, and Fire
- Winter Storms
- High Winds and Severe Storms



Section V: Existing Mitigation Measures

- Summary of existing mitigation Town has in place for:
 - Flood-related hazards
 - Wind-related hazards
 - Winter-related hazards
 - Fire-related hazards
 - Geologic hazards
- Summary of existing multi-hazard mitigation measures



Section VI: Hazard Mitigation Goals and Objectives

Central objectives of the CRB process were added to the plan goals from 2010:

1. Define the top local natural and climate-related hazards of concern.
2. Identify existing and future strengths and vulnerabilities within the Town.
3. Develop prioritized actions for the community.
4. Identify immediate opportunities to collaboratively advance planning actions to increase resilience.

Section VII: Potential Mitigation Measures

Top Priority Actions

- Assess and construct redundant underground electrical system/microgrid at Town Campus under the control of the Town.
- Develop a Town Emergency Communications Plan and identify most effective means to reach vulnerable populations including residents with economic, language, and physical barriers.
- Continue to identify vulnerable trees and perform proactive maintenance. Encourage utility companies to continue tree maintenance programs to identify and monitor vulnerable trees along overhead power lines.
- Hire a consultant to review and update Comprehensive Emergency Management Plan.
- Coordinate with downstream communities and other planning commissions to manage rivers and streams. Conduct maintenance of hazard trees along the banks. Develop and implement proactive Beaver Management Plan.

Sample Action Grants FY20 - FY21

- Uxbridge - Integrated Vector-borne Disease Control Program (\$256,926 Award)
- Lexington & Resilient Mystic Collaborative - Upper Mystic River Watershed Regional Stormwater Wetlands (\$670,000 Award)
- Newburyport - Resilient Critical Infrastructure: Adapting a Wastewater Treatment Facility, Underground Electric Lines, and Public Rail Trail to Future Sea Level Rise and Storm Surge (\$1,000,000 Award)

Public Comment

- Presentation materials and draft HMP will be available at:
<https://www.bedfordma.gov/departments-of-public-works/webforms/municipal-vulnerability-preparedness-hazard-mitigation-plan>
- Submit written public comments to:
 - Jeanette Rebecchi, Transportation Manager
 - 314 The Great Road
 - Bedford, MA 01730
 - jrebecchi@bedfordma.gov
 - (781) 918-4274

Next Steps

1

Incorporate listening session results and public comments into final summary report/HMP

2

Submit final summary report/HMP to EEA and MEMA

3

Incorporate MEMA comments and submit updated draft to FEMA for review and comment

4

Select Board to vote to adopt final plan upon FEMA approval

5

Submit MVP Action Grant applications