



# MVP LISTENING SESSION

Town of Dunstable, Massachusetts

Thursday, April 11, 2024

6:00 – 7:00 PM

# AGENDA

01

**Welcome & Introductions**

02

**About MVP and HMPs**

03

**Climate Change Projections for Top Hazards in Dunstable**

04

**Dunstable's HMP-MVP Plan**

05

**Questions and Discussion**

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# MEET THE CORE TEAM

## Dunstable's MVP/HMP Core Team:

**Jason Silva**  
Town Administrator

**Leah Basbanes**  
Selectboard & Con Com

**Erik Hoar**  
Police Chief

**Bridget Baley**  
Health Agent

**William Farrell**  
Dunstable Fire Chief

**Jon Crandall**  
Emergency  
Management Director

**Maria Amodei**  
Board of Health

**Dave Tully**  
Highway Superintendent

**Mike Martin**  
Road Commission  
Chair

**John O'Brien**  
Water Commission



# MEET THE SUPPORT TEAM



**Janet Moonan, PE**  
Project Technical Lead  
Weston & Sampson



**Nichole Davis**  
Community Outreach  
Coordinator  
Hoyle Tanner



**David Langlais, PE**  
Town Engineer  
Hoyle Tanner



**Michelle Rowden**  
MVP Regional Coordinator  
EOEEA



**Thank you to the Executive Office of Energy and Environmental  
Affairs for the MVP Planning Grant Funding for this work**

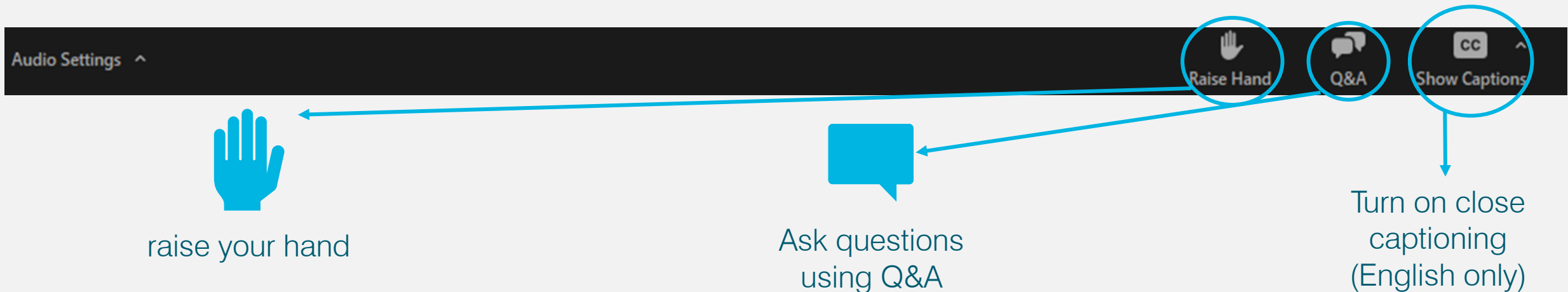


# ZOOM WEBINAR WORKSHOP LOGISTICS

Webinar attendees will only see panelists

Please use Q&A for ongoing questions

Please raise your hand to speak, and we will un-mute you for a brief duration



The image shows a screenshot of the Zoom meeting control bar. Three icons are circled in blue: 'Raise Hand', 'Q&A', and 'Show Captions'. Blue arrows point from these icons to larger, more detailed icons below. The 'Raise Hand' icon is a blue hand, with the text 'raise your hand' below it. The 'Q&A' icon is a blue speech bubble, with the text 'Ask questions using Q&A' below it. The 'Show Captions' icon is a blue 'CC' symbol, with the text 'Turn on close captioning (English only)' below it.

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## Town of Dunstable Undertaking:

- ✓ Community Resilience Building (CRB) process through EEA's **Municipal Vulnerability Preparedness (MVP)** Planning Grant to obtain Community Designation
- ✓ Preparation of a natural **Hazard Mitigation Plan (HMP)** consistent with the Federal Emergency Management Agency (FEMA) requirements



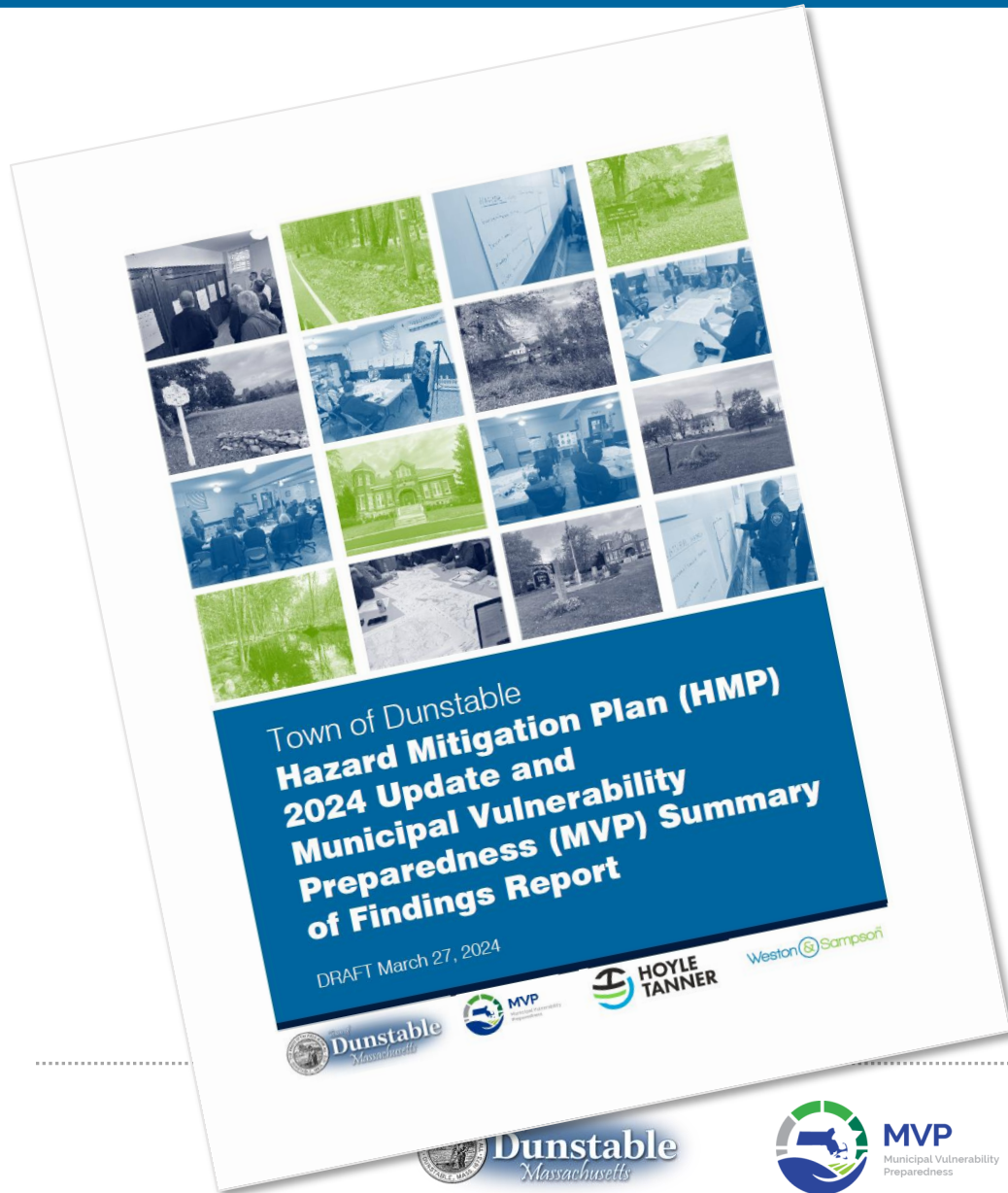
**MVP**  
Municipal Vulnerability  
Preparedness



**FEMA**



# DRAFT PLAN



- Available online at:

<https://www.dunstable-ma.gov/town-administrator/pages/municipal-vulnerability-preparedness-plan>



# KEY TERMS

**NATURAL HAZARDS:** A source of harm or difficulty created by a meteorological, environmental or geological event. Natural hazards, such as flooding and earthquakes, impact the built environment, including dams and levees.

**CLIMATE ADAPTATION:** Actions taken at the individual, local, regional, state, and national levels to reduce risks from changing climate conditions and prepare for impacts from additional changes projected for the future.

**CLIMATE RESILIENCE:** The ability to prepare for, recover from, and adapt to climate change and associated impacts.

**PRIORITY POPULATIONS:** People or communities who are disproportionately impacted by climate change due to life circumstances that systemically increase their exposure to climate hazards or make it harder to respond.

**COMMUNITY ASSETS:** People, structures (buildings and facilities), systems, natural/historic/cultural resources, the economy, and activities that have value to the community.

**HAZARD MITIGATION:** Actions taken to reduce or eliminate the long-term risk to human life and property from natural hazards.

# WHAT IS MVP?

OFFERED BY [Governor Maura Healey and Lt. Governor Kim Driscoll](#) | [Executive Office of Energy and Environmental Affairs](#)

PRESS RELEASE

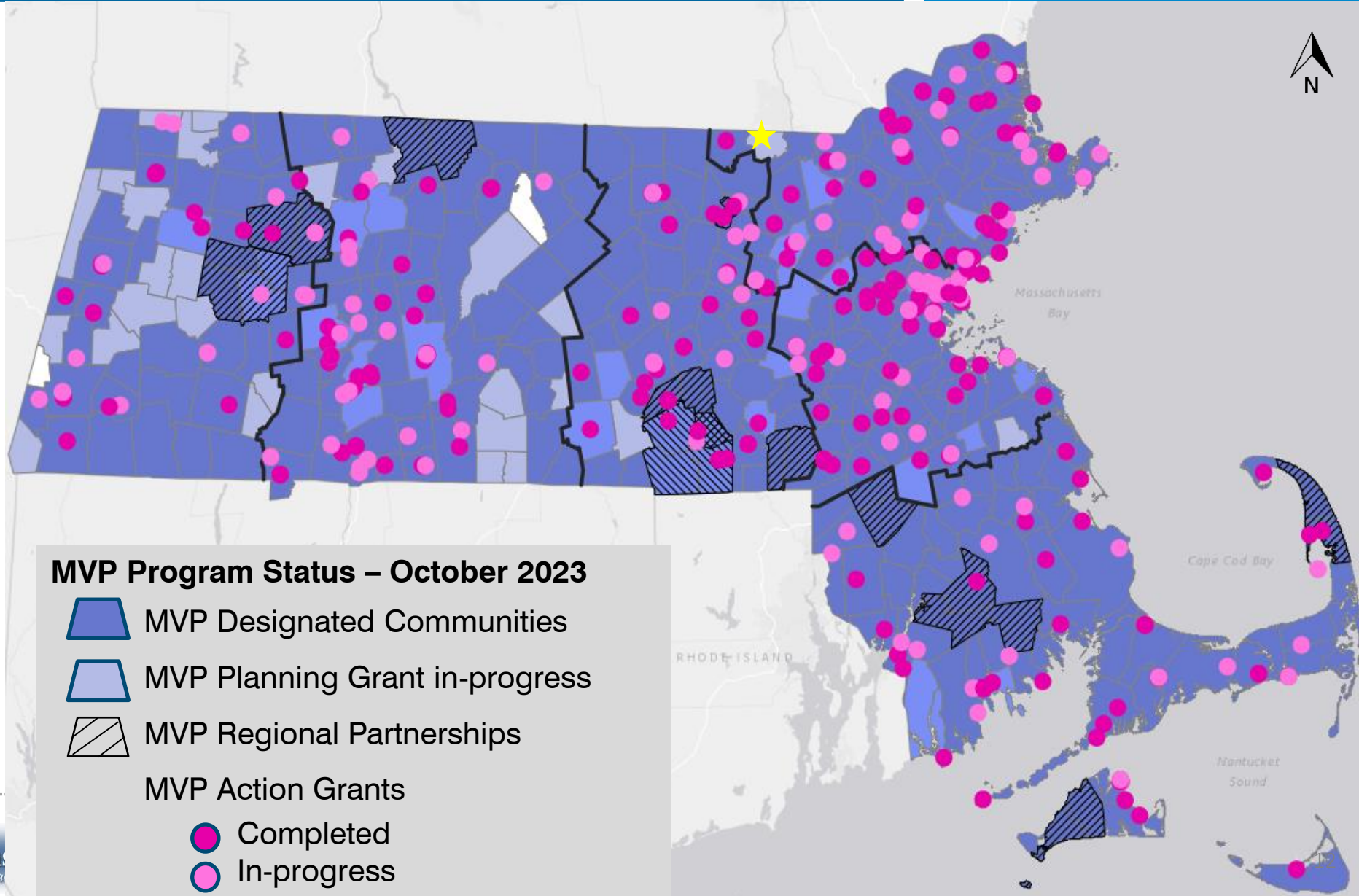
## Healey-Driscoll Administration Awards \$31.5 Million in Climate Resiliency Funding to Communities

- The Executive Office of Energy and Environmental Affairs' MVP grant and designation program, which builds on Governor Baker's Executive Order 569 as well as other administration-led state and local partnerships, provides communities with **technical support, climate change data and planning tools** to identify hazards and develop strategies to **improve resilience**.
- “Our Administration is committed to partnering with cities and towns to develop **practical and cost-effective solutions** to build the **climate-resilient communities** of tomorrow,” said Lieutenant Governor Karyn Polito.



# WHAT IS MVP?

- Improved resilience and preparedness
- Collaboration with stakeholders
- Increased education, planning, and implementation
- Funding for resilience-related actions



# WHAT IS MVP?

## 1. MVP Planning Grant

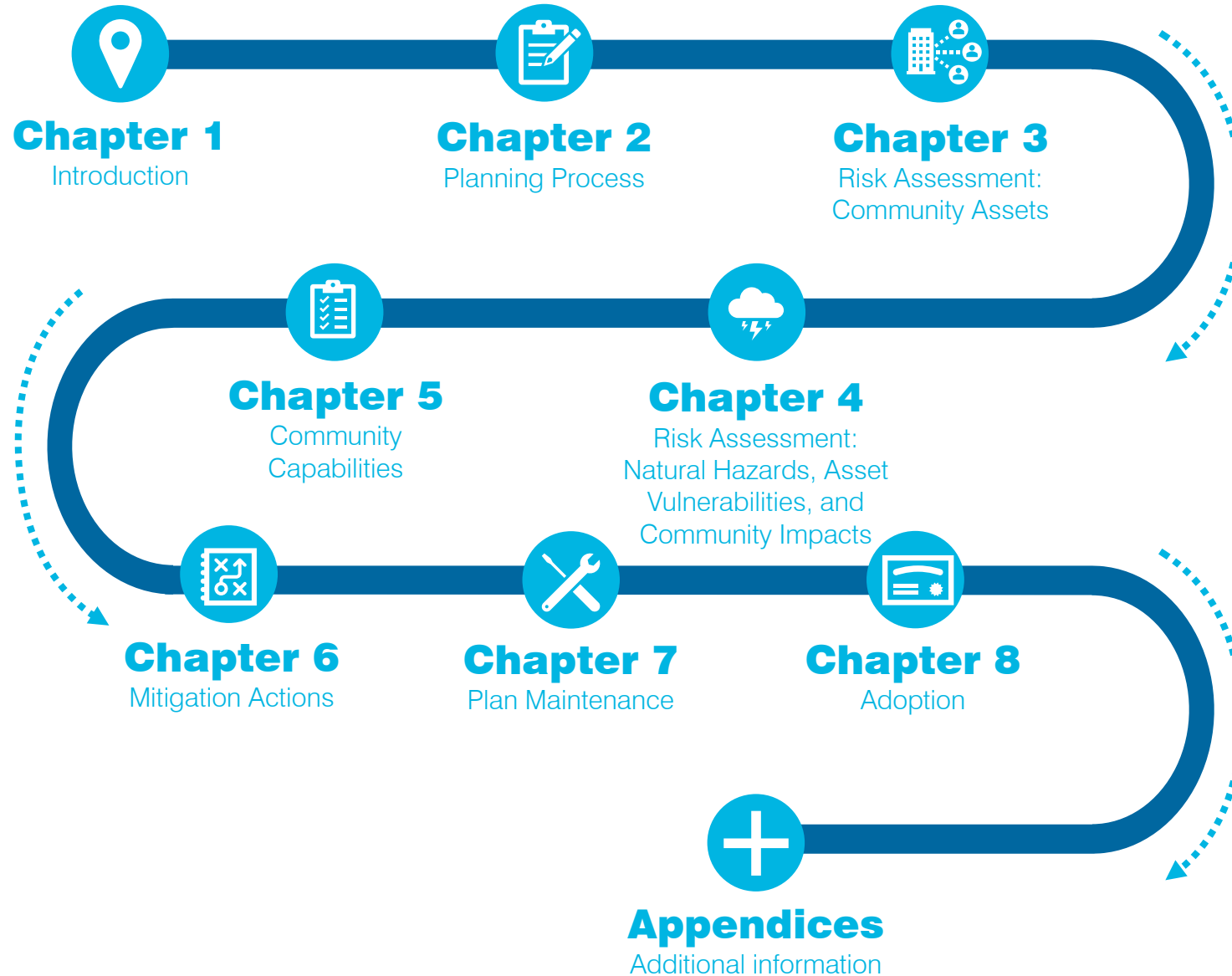
- Define climate hazards
- Identify community vulnerabilities and strengths
- Develop and prioritize mitigation actions
- Receive MVP designation

## 2. MVP Action Grant

- Implement priority adaptation actions identified during the planning process



# WHAT IS A HAZARD MITIGATION PLAN (HMP)?



# WHAT IS THE VALUE OF THIS WORK?



EVERY \$1

SPENT ON MITIGATION



SAVES \$6

ON DISASTER RECOVERY



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# WHY WE'RE HERE

## Weather projections:

### Changes in precipitation

- 12-42% more winter precipitation by 2070.
- Priority Populations have a 57% higher risk of flood damage than the rest of the Commonwealth.
- Annual economic flood damage increase by \$9.3 million by 2030 in MA.

### Severe Weather

- Precipitation amounts from heaviest storms increased by 55% since 1958.
- Lightning was responsible for \$20.4 million in damage between 2002 and 2022.

### Rising temperatures

- 23-29 high heat days expected by 2050.
- Annual average temperature increase of 5.9 to 7.9 F by 2050.
- Extreme temps will increase annual transportation infrastructure maintenance cost by over \$140 million

### Regional changes

- Increase in frequency and magnitude of hurricanes and nor'easters
- More risk to experiencing tornados.
- Increased fire potential.

Source: ResilientMass Plan (2023)



# TOP HAZARDS IN DUNSTABLE



Severe Winter Storms



Precipitation  
Flooding



Extreme  
Temperatures



Invasive  
Species

# SEVERE WINTER STORMS

|  |   |
|--|---|
| <b>Description</b>   | <ul style="list-style-type: none"><li>• Ice storms, nor'easters, heavy snow, blowing snow, and other extreme forms of winter precipitation</li></ul>  |
| <b>Location</b>  | <ul style="list-style-type: none"><li>• Town-wide</li></ul>   |
| <b>Previous Occurrences</b>  | <ul style="list-style-type: none"><li>• There have been 35 days of extreme winter weather since 2015</li><li>• Halloween Storm of 2009- power out for almost a week</li><li>• Large Ice Storm in 2010/2011 – long power outage</li><li>• Early 2013 storm – nearly 3 feet of snow</li></ul> |
| <b>Probability of future occurrences, including climate change impacts</b> | <ul style="list-style-type: none"><li>• More intense storms</li><li>• Unclear if frequency of storms will change</li><li>• May be more ice and freezing rain than snow</li></ul>  |

# SEVERE WINTER STORMS

**Residents noted how quickly the community comes together to assist with snow removal for the elderly and infirmed.**

- CRB Workshop Attendees

**While many residents have generators, attendees recalled there have been recent storms that caused power outages of over a week in length across Dunstable.**

- CRB Workshop Attendees

**No power often means no water.**

- Survey Respondent

**Winter storms can impact anyone in Dunstable: their safety or health. It can be hard to get emergency services during and after a winter storm.**

-Survey Respondent

# PRECIPITATION BASED FLOODING

|  |  |
|--|--|
| <b>Description</b>   | <ul style="list-style-type: none"><li>• Flooding from rivers, stormwater runoff, ice jams, and dam failure</li></ul>   |
| <b>Location</b>  | <ul style="list-style-type: none"><li>• Current FEMA Flood Zones and potentially expanded flood zones</li></ul>  |
| <b>Previous Occurrences</b>  | <ul style="list-style-type: none"><li>• There have been 38 days of extreme flooding since 2015</li><li>• 13 of those days resulted in property damage</li><li>• Summer 2023 torrential rains caused flooding</li></ul> |
| <b>Probability of future occurrences, including climate change impacts</b> | <ul style="list-style-type: none"><li>• More total precipitation annually</li><li>• More intense rain events</li><li>• Greater consecutive dry days, as well</li></ul>   |

# FLOODING FROM PRECIPITATION

## FEMA Flood Zones

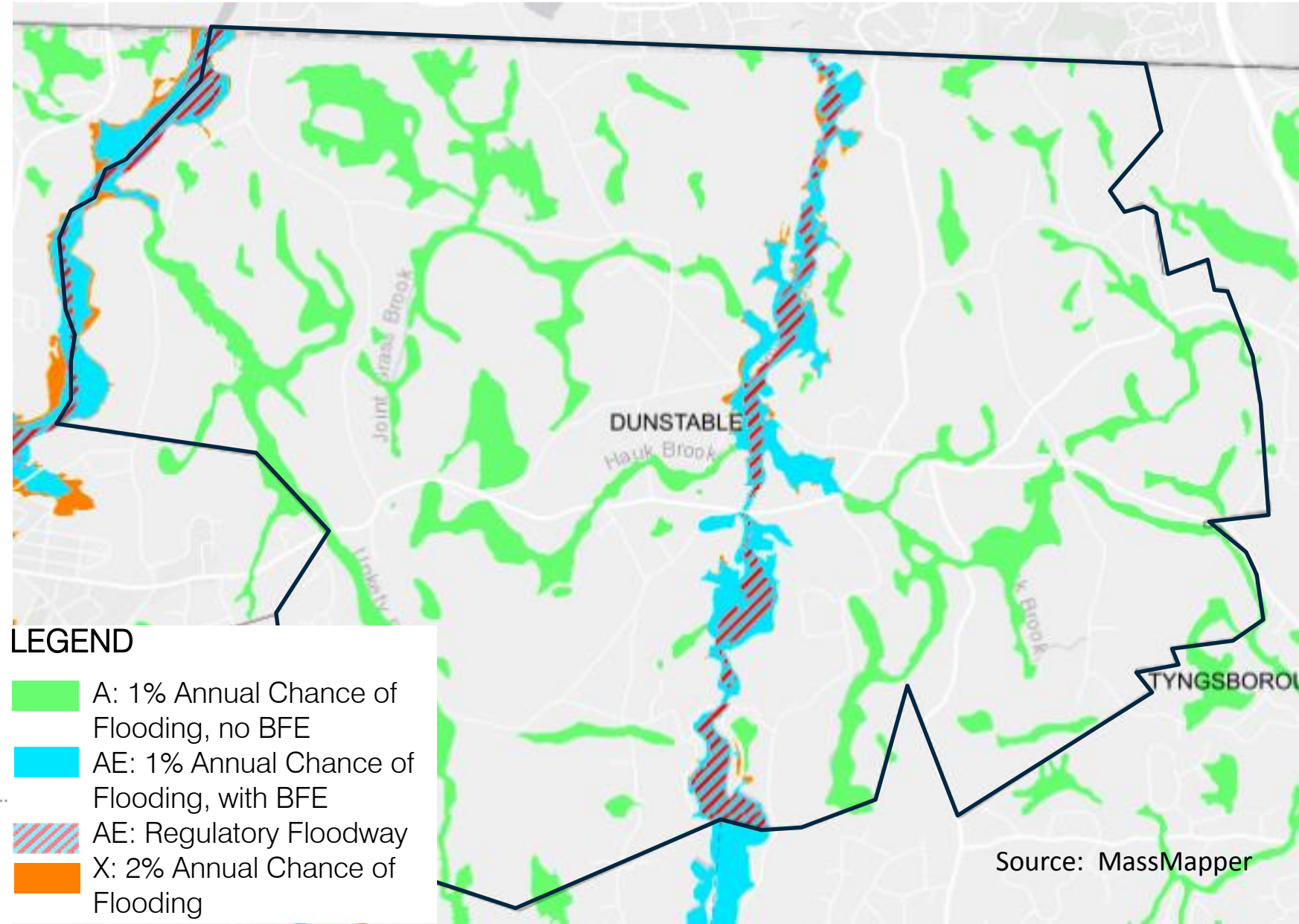
Geographic areas that FEMA has defined according to varying levels of flood risk

500-year Storm: 0.2% annual chance of occurring

100-year Storm: 1% annual chance of occurring

25-year Storm: 4% annual chance of occurring

10-year Storm: 10% annual chance of occurring



# PRECIPITATION BASED FLOODING

**The increase and rapid rainfall quickly causes flash flooding on our town streets and can result in flooded basements.**

- Survey Respondent

**The torrential rains during summer 2023 caused significant erosion across town and locations of periodic flooding on side streets.**

- Survey Respondent

**The Fire Department faces basement flooding due to water levels in nearby Salmon Brook.**

- CRB Workshop Attendees

**Heavy rains have caused “gullies” alongside roadways, due to country drainage. This has created concerning infrastructure conditions and heavy maintenance and repair needs. .**

- CRB Workshop Attendees

# EXTREME TEMPERATURES

|  |  |
|--|--|
| <b>Description</b>   | <ul style="list-style-type: none"><li>• Extreme heat: period of excessively hot weather (daily high temperature above 90 °F and high humidity)</li><li>• Extreme cold: period of excessively low temperatures, especially with additional wind chill (– 15°F.)</li></ul> |
| <b>Location</b>  | <ul style="list-style-type: none"><li>• Town-wide</li></ul>  |
| <b>Previous Occurrences</b>  | <ul style="list-style-type: none"><li>• 10 heat warnings and 17 cold warnings since 2018</li><li>• Over 25 days of record-setting heat since 2005</li></ul>  |
| <b>Probability of future occurrences, including climate change impacts</b> | <ul style="list-style-type: none"><li>• Days above 95 °F are predicted to go from 3 to 27 annually on average by end of century</li><li>• Days below 32 °F are predicted to go from -28 to -79</li></ul>   |



# EXTREME TEMPERATURES

**The farming community notices the “kill frost.” It used to occur by mid-September and now it is late October or early November.**

- CRB Workshop Attendees

**There are concerns regarding a lack of air conditioning in the schools. Residents were highly concerned about power outages during days of extreme heat that could become dangerous to students in the schools.**

- CRB Workshop Attendees

**Extreme heat affects everyone at this point and AC is becoming as much a necessity as heat.**

- Survey Respondent

**Dunstable residents noted the increase in the elderly population that would be particularly vulnerable to both extreme cold and extreme heat.**

-Survey Respondents and CRB Workshop Attendees

# INVASIVE SPECIES

|  |   |
|--|---|
| <b>Description</b>   | <ul style="list-style-type: none"><li>• Flora and fauna</li><li>• non-indigenous to Massachusetts, demonstrates the potential for rapid and widespread dispersion and establishment, has the potential to disperse over spatial gaps, and exists in high numbers in natural habitats.</li></ul> |
| <b>Location</b>  | <ul style="list-style-type: none"><li>• Town-wide</li></ul>   |
| <b>Previous Occurrences</b>  | <ul style="list-style-type: none"><li>• Increasing presence of Garlic Mustard, Bittersweet, Japanese Knotweed, Milfoil and Curly Leaf Pondweed, Wintercreeper, new jumping worm</li></ul>   |
| <b>Probability of future occurrences, including climate change impacts</b> | <ul style="list-style-type: none"><li>• Earlier start to season may make invasives more competitive</li><li>• Warmer winter temperatures may mean less pest are killed</li></ul>  |

# INVASIVE SPECIES

**Recently we are seeing an impact to wooded areas in Dunstable due to non-native species.**

- Survey Respondents

**There is concern about both Japanese knotweed and bittersweet. The new jumping worm is having severe impacts on soil quality.**

- CRB Workshop Attendees

**Invasive species Wintercreeper (*Euonymus fortunei*) evergreen vine and Japanese Knotweed are becoming quite prevalent along roadsides.** – CRB Workshop Attendees

**Garlic Mustard, Bittersweet, Japanese Knotweed, Milfoil and Curly Leaf Pondweed in the Lake Massapoag area are problematic.**

-Survey Respondent

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# CHAPTER 1: INTRODUCTION

## DUNSTABLE'S NATURAL HAZARD MITIGATION AND CLIMATE ADAPTATION GOALS

1. **Protect Health and Safety:** Ensure that people, structures, systems, natural/cultural/historic resources and the overall health and safety of Dunstable are protected from natural hazards.
2. **Increase Outreach and Education:** Increase awareness and support for natural hazard mitigation among private organizations, businesses, and area residents through outreach and education.
3. **Increase Response Capacity:** Increase Dunstable's community's capacity for responding to a natural hazard event.
4. **Protect Priority Populations:** Implement a broad range of mitigation measures that protect the Town's priority populations.
5. **Consider the Economy:** Develop a mitigation strategy that considers area businesses and protects the economic vitality of the Town.
6. **Integrate Climate Change:** Implement mitigation strategies to protect the community from the impacts of climate change.
7. **Encourage Smart Development:** Discourage future development in hazard prone areas, such as flood plains.
8. **Increase Coordination:** Increase coordination between the Federal, State, regional and local levels of government.
9. **Keep the Plan Relevant:** Update and maintain the Plan as resources permit.
10. **Be Sustainable:** Encourage sustainability of the Town.

# CHAPTER 2: PLANNING PROCESS

## Town Staff



### Core Team

10 key Town staff

who guide the planning process  
and endorse draft Goals

**4 Meetings  
& 2 Workshops**

## Stakeholders



### Community Resilience Building Workshops (MVP)

20 stakeholders

including advocates, residents,  
business-owners, state and local  
agency representatives, and  
people from various other  
organizations.

**2 Workshops**

## Public



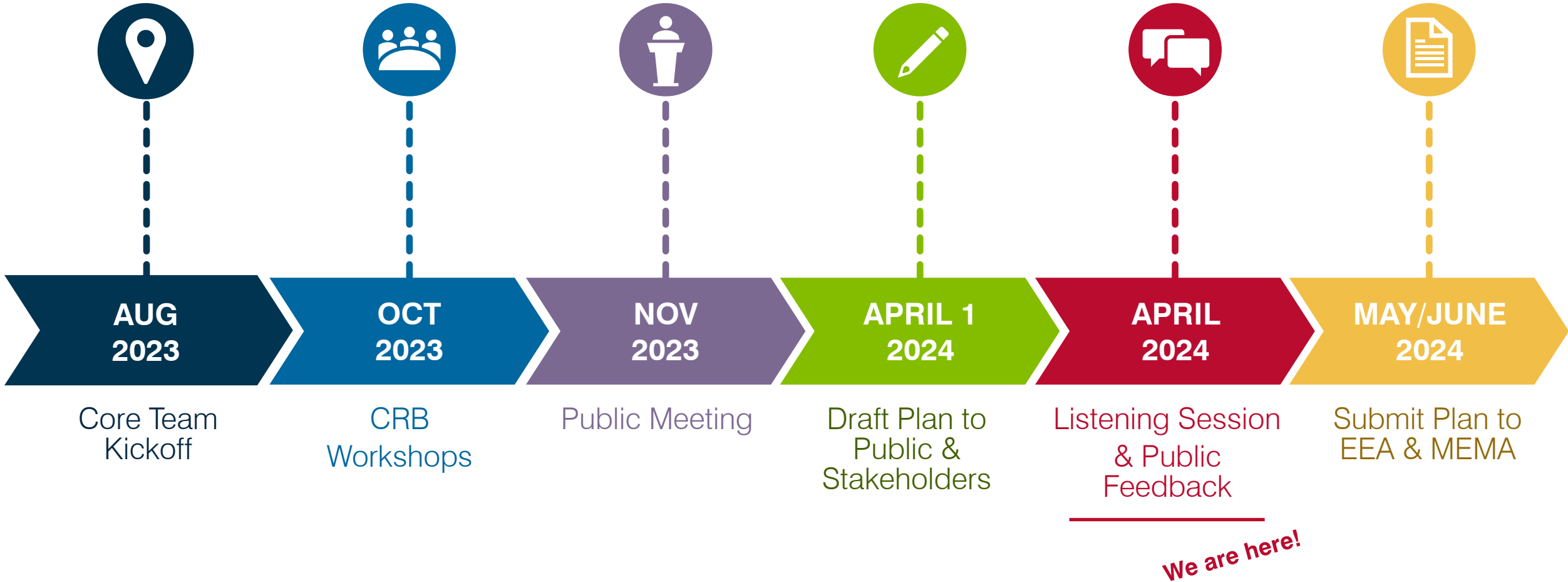
### Public Engagement

Everyone

Results from public meetings and  
other feedback are integrated into  
the final report.

**2 Public Meetings  
80 Survey Responses**

# CHAPTER 2: PLANNING PROCESS



# CHAPTER 2: PLANNING PROCESS

## COMMUNITY RESILIENCE BUILDING WORKSHOP #1

October 20, 2023

- 19 participants
- 4 hours
- Identified top priority hazards in Dunstable
- Identified community assets





# CHAPTER 2: PLANNING PROCESS

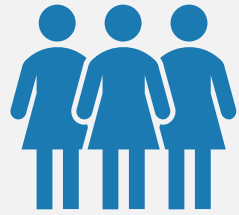
## COMMUNITY RESILIENCE BUILDING WORKSHOP #2

October 26, 2023

- 21 participants
- 4 hours
- 30 Priority Action ideas generated to make Dunstable more resilient to natural hazards and climate change



# CHAPTER 3: RISK ASSESSMENT: COMMUNITY ASSETS



## People

- Youth, elderly, priority populations
- School
- Daycares
- Y Camp
- Senior Center at Library
- Volunteers



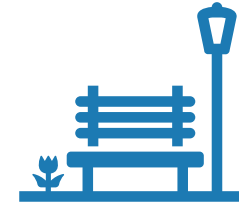
## Structures

- Police, Fire, Town Hall, Library
- School
- Water Tower
- Dams
- Highway Department
- Church



## Systems

- Water system
- Electric grid
- Communications (cable, internet, social media, sign board)
- Roadways & culverts



## Economy & Community Activities

- Local Businesses
- Gas Station
- Summer Concerts
- Festivals
- Scouts
- Agriculture



## Historic / Cultural / Natural Resources

- Extensive open/forested space
- Town Common
- Historic District
- Rail Trail
- Larter Fields
- Little Red Schoolhouse
- Rural Land Trust
- Historic Society

# CHAPTER 4: RISK ASSESSMENT: NATURAL HAZARDS, ASSET VULNERABILITIES, AND COMMUNITY IMPACTS



**Average / Extreme Temperatures**



**Changes in Groundwater**



**Drought**



**Earthquakes**



**Flooding from Precipitation**



**Hurricanes / Tropical Cyclones**



**Invasive Species**



**Landslides/Mudflows**



**Other Severe Weather**



**Severe Winter Storms**

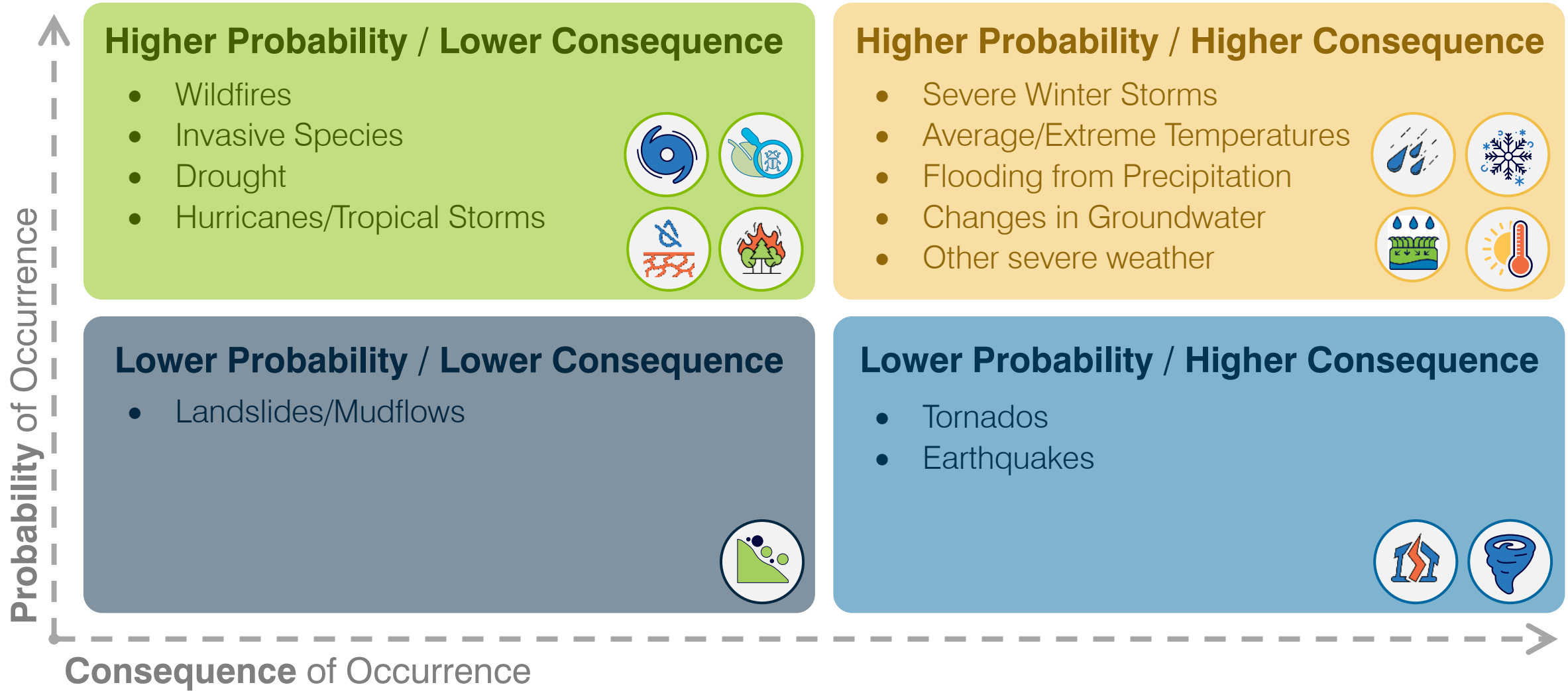


**Tornadoes**



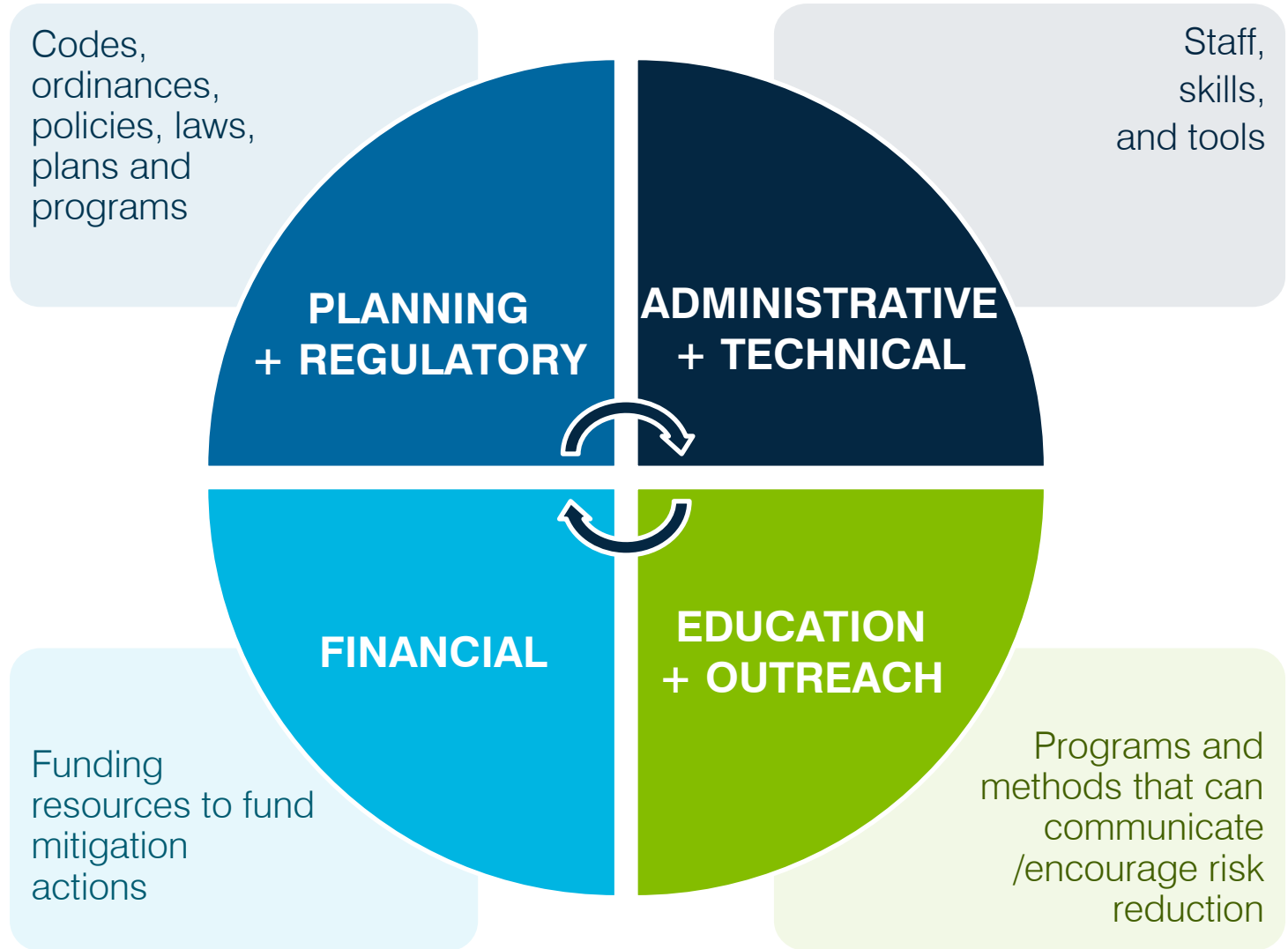
**Wildfire**

# CHAPTER 4: RISK ASSESSMENT: NATURAL HAZARDS, ASSET VULNERABILITIES, AND COMMUNITY IMPACTS



# CHAPTER 5: COMMUNITY CAPABILITIES

*The Town of Dunstable has a unique set of capabilities, in the form of laws, policies, programs, staff, funding and other resources, to carry out the HMP and increase resilience.*



# CHAPTER 5: COMMUNITY CAPABILITIES

## What we've heard from you Summary of Public Survey Results

### What does the Town do well to prepare for natural hazards?

- ✓ Treats winter roads
- ✓ Snow removal/preparedness
- ✓ Public notifications of upcoming extreme events
- ✓ Provides green space

### What could the Town improve on to prepare for natural hazards?

- Implement renewable energy
  - Plan for climate resilience
- Public notifications of upcoming extreme events
- Prioritize vulnerable populations

# CHAPTER 5: MITIGATION ACTIONS

**A mitigation action is a measure, project, plan, or activity proposed to reduce current and future vulnerabilities to natural hazards.** These actions will create resilience for Dunstable (ability to withstand and swiftly recover from an extreme event). These actions will support adaptation to climate change.

## Before an event

- Local code and regulations
- Maintenance
- Proactive Infrastructure Projects

## During an event

- Warnings
- Protection of critical facilities
- Emergency response

## Following an event

- Clean up
- Restoration
- Enhancement

COMMUNICATIONS

# CHAPTER 6: MITIGATION ACTIONS

- 42 Draft Mitigation Actions
- Must have at least one for each natural hazard
- Reflect community assets, risk & vulnerability assessment
- Consider CRB Workshops and Public Input

| Action # | Action Description   | Hazards/ Risks Addressed  | Goals Addressed  | Responsible Party                    | Further Agencies  | Overall Priority | Cost Estimate | Potential Funding Sources                                  | Timeline to Start | Estimated Duration/Lead Time | Integration Status | Integration Opportunity |
|----------|--|---|--|--------------------------------------|---|------------------|---------------|--|-------------------|------------------------------|--------------------|-------------------------|
|          |  |   |  |                                      |   |                  |               |  |                   |                              |                    |                         |
| 1        | Fire Department/Station on Resilience  | Prevention/Resilience winter storms   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Fire Dept                            | Select Board  | Medium           | \$5           | Capital Budget<br>Municipal Bond<br>Municipal Reserve Fund | In Progress       | Long term                    | Yes                | No                      |
| 2        | Road Resilience evaluation and management plan   | Prevention/Resilience   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Road Commission                      | Highway Department  | High             | \$5           | Capital Budget<br>Municipal Bond<br>Municipal Reserve Fund | In Progress       | Short term                   | Yes                | Yes                     |
| 3        | Wastewater Mill Flood Dam Repairs  | Disrupt, precipitation flooding   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Select Board                         | Conservation Commission   | Medium           | \$5           | Capital Budget<br>Municipal Bond<br>Municipal Reserve Fund | In Progress       | Short term                   | Yes                | Yes                     |
| 4        | Communication plan for priority populations  | All hazards   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Police                               | Senior Center   | High             | \$            | Staff Time   | Less than 1 year  | Short term                   | No                 | Yes                     |
| 5        | Climate cooling area (e.g., indoor approaches & structures) at Little Park, Town Common, school parking lot  | Average/Extreme temperatures  | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Select Board                         | Community Preservation Committee  | Low              | \$5           | Grant  | 1-2 years         | Short term                   | No                 | Yes                     |
| 6        | Culverts & Dams: Inventory & evaluate and flood state regarding prevention   | Prevention/Resilience   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Road Commission                      | Highway Department  | High             | \$5           | Capital Budget<br>Municipal Bond<br>Municipal Reserve Fund | In Progress       | Medium term                  | Yes                | Yes                     |
| 7        | Education & Outreach for Invasive, Weeds, Ticks, Flooding  | Invasive Species, drought, wildfire   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Town Forest Committee                | Conservation Commission   | High             | \$            | Staff Time / Grant   | In Progress       | Short term                   | No                 | No                      |
| 8        | Install meter at water tower   | Drought   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Water Commission                     | Select Board  | Medium           | \$5           | Capital Budget<br>Municipal Bond<br>Municipal Reserve Fund | 1-2 years         | Short term                   | Yes                | Yes                     |
| 9        | Complete a review of bylaws & regulations for climate resilience   | All hazards   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Planning Board                       | Zoning Board of Appeals / Conservation Commission / Select Board          | High             | \$            | Staff Time / Grant   | Less than 1 year  | Short term                   | Yes                | Yes                     |
| 10       | Generators for heating/cooling in critical buildings   | Average/Extreme temperatures  | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Emergency Management Director        | Police, Fire, Select Board  | High             | \$5           | Municipal Bond / Grant                                     | 1-2 years         | Short term                   | No                 | Yes                     |
| 11       | Develop List of Emergency Shelters in other communities (including Haverhill)  | All hazards except disruption groundwater and invasive species  | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Emergency Management Director        | Select Board  | High             | \$            | Staff Time   | Less than 1 year  | Short term                   | No                 | Yes                     |
| 12       | Improve and create affordable senior housing options   | All hazards except disruption groundwater and invasive species  | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | WMOCC / Middlesex Housing Commission | WMOCC / Middlesex Housing Commission                                      | Medium           | \$50          | Staff Time / Grant   | In Progress       | Medium term                  | Yes                | Yes                     |
| 13       | Improve access to health services / medical services for the management and emergency response   | Wildfire  | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Town Forest Committee                | Road Commission   | Medium           | \$5           | Capital Budget / Grant                                     | In Progress       | Short term                   | No                 | Yes                     |
| 14       | Add AC to school for outdoor cool mitigation   | Average/Extreme temperatures  | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Schools                              | Emergency Management Director   | High             | \$            | Municipal Bond / Grant                                     | 1-2 years         | Short term                   | No                 | Yes                     |
| 15       | Implement Building Energy Actions at Union School  | Average/Extreme temperatures, precipitation flooding, winter storms, hurricanes, tornadoes, wildfire, drought | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Select Board                         | DPS, Historical Commission  | Medium           | \$50          | Capital Budget / Grant                                     | 1-2 years         | Short term                   | Yes                | Yes                     |
| 16       | Mitigate potential impacts of flooding and other natural hazards at new development projects   | Prevention/Resilience   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Planning Board                       | Zoning Board of Appeals / Conservation Commission                         | High             | \$            | Staff Time / Grant   | Less than 1 year  | Short term                   | Yes                | Yes                     |
| 17       | Road study for DMV   | Prevention/Resilience   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Road Commission                      | Town Engineer   | Medium           | \$            | Municipal Bond / Grant                                     | 1-2 years         | Short term                   | No                 | Yes                     |
| 18       | Develop policies for use for Library/Council on Aging  | All hazards except disruption groundwater and invasive species  | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Library Trustees                     | Council on Aging  | High             | \$            | Staff Time   | Less than 1 year  | Short term                   | No                 | No                      |
| 19       | Provide access to drinking water from town on public property (e.g., water towers, fire stations)  | Drought, average/Extreme temperatures   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Water Commission                     | Planning Board, Select Board  | Low              | \$5           | Municipal Bond / Grant                                     | 2-3 years         | Long term                    | No                 | Yes                     |
| 20       | Adopt community policies to encourage weather (fire) to avoid natural hazards  | All hazards   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Emergency Management Director        | Cultural Council  | Medium           | \$            | Staff Time   | Less than 1 year  | Short term                   | No                 | No                      |
| 21       | Develop procedure and plan response for fire department response to power lines  | Prevention/Resilience   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Fire Dept                            | Emergency Management Director   | Medium           | \$            | Staff Time   | In Progress       | Short term                   | No                 | No                      |
| 22       | Get power / energy resilience study  | All hazards   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Emergency Management Director        | WMOCC   | Low              | \$5           | Grant  | 1-2 years         | Long term                    | No                 | No                      |
| 23       | Regional Coordination for Cow Pond Dam   | Prevention/Resilience   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Conservation Commission              | WMOCC   | Medium           | \$            | Staff Time   | Less than 1 year  | Short term                   | No                 | Yes                     |
| 24       | Water Department resilience study  | All hazards   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Police                               | Select Board  | Low              | \$5           | Grant  | 1-2 years         | Medium term                  | No                 | No                      |
| 25       | Hydrant inventory & pipe identification  | Wildfire  | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Fire Dept                            | Emergency Management Director   | Medium           | \$            | Staff Time   | Less than 1 year  | Short term                   | No                 | No                      |
| 26       | Improve emergency communications plan  | All hazards   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Police                               | Emergency Management Director   | Medium           | \$            | Staff Time   | Less than 1 year  | Short term                   | No                 | Yes                     |
| 27       | Encourage sign up for outdoor systems, priority populations in outdoor   | All hazards   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Select Board                         | Council on Aging  | High             | \$            | Staff Time   | Less than 1 year  | Short term                   | No                 | No                      |
| 28       | Overhead flooding study  | Prevention/Resilience   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Road Commission                      | Select Board, Town Engineer   | Medium           | \$5           | Grant  | 1-2 years         | Medium term                  | No                 | Yes                     |
| 29       | Add and save for repair service in case of emergencies   | All hazards   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Police, Fire                         | Select Board  | Low              | \$5           | Municipal Bond / Grant                                     | 2-3 years         | Long term                    | No                 | Yes                     |
| 30       | Water management planning  | Prevention/Resilience   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Board of Health                      | Road Commission<br>Conservation Commission                                | Medium           | \$            | Staffing Budget / Grant                                    | Less than 1 year  | Long term                    | Yes                | Yes                     |
| 31       | Ongoing inventory of trees surrounding critical buildings and structures   | Water, weather, hurricanes  | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Road Commission                      | Town Forest Committee   | Medium           | \$            | Capital Budget / Municipal Bond / Grant                    | Annual            | Long term                    | No                 | No                      |
| 32       | Revisit standards at Town Common   | Average/Extreme temperatures  | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Select Board                         | Cultural Council  | Low              | \$50          | Capital Budget / Municipal Bond / Grant                    | 2-3 years         | Medium term                  | No                 | No                      |
| 33       | Revisit post at Little Field   | Average/Extreme temperatures  | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Emergency Management Director        | Water Commission/Community Preservation Committee                         | Low              | \$50          | Capital Budget / Municipal Bond / Grant                    | 2-3 years         | Medium term                  | No                 | No                      |
| 34       | Study the Community Warning System to determine opportunities for Dunstable  | Prevention/Resilience   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Select Board                         | WMOCC   | Medium           | \$5           | Staff Time / Grant   | 1-2 years         | Short term                   | No                 | Yes                     |
| 35       | Assess public awareness of the dangers of extreme temperatures and other conditions when water is available, and how to best use it in the event of a heatwave | Average/Extreme temperatures  | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Emergency Management Director        | Police, Fire, Select Board  | Medium           | \$5           | Staff Time / Grant   | Annual            | Short term                   | No                 | Yes                     |
| 36       | Meet with DCR Office of Dam Safety to review the responsibilities of all dams in current   | Prevention/Resilience   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Select Board                         | Road Commission<br>Conservation Commission                                | High             | \$            | Staff Time / Grant   | 1-2 years         | Medium term                  | No                 | Yes                     |
| 37       | Propose hazard mitigation (inoculation, regulations, M&P, and Open Space Plan) updates   | All hazards   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Planning Board                       | Zoning Board of Appeals / Conservation Commission / Master Plan Committee | Medium           | \$            | Staff Time   | Less than 1 year  | Short term                   | No                 | Yes                     |
| 38       | Participate in DCR's Fire Risk Program for the forested watershed of town  | Wildfire  | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Fire Dept                            | Town Forest Committee   | Medium           | \$            | Staff Time   | Annual            | Long term                    | No                 | Yes                     |
| 39       | Ensure that administrators of schools, businesses, and municipal buildings have a water plan in the event of a heatwave  | Firestorm   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Schools                              | Police / Fire   | High             | \$            | Staff Time / Grant   | Annual            | Long term                    | No                 | Yes                     |
| 40       | Study the establishment of a mutual aid agreement with neighboring communities to address M&P (tabing a main agreement)  | All hazards   | 1. Protect Health and Safety<br>2. Increase Resilience Capacity<br>3. Increase Resilience Capacity<br>4. Increase Resilience Capacity<br>5. Increase Resilience Capacity | Select Board                         | WMOCC   | High             | \$            | Staff Time   | Annual            | Long term                    | No                 | Yes                     |





# CHAPTER 6: MITIGATION ACTIONS

★ Green denotes also a MVP CRB Priority

## Top Actions

- ✓ Road infrastructure evaluation and management plan
- ✓ Complete a review of bylaws & regulations for climate resilience
- ✓ Develop List of Emergency Shelters in other communities (including Pepperell)
- ✓ Add AC to school for shelter use/ designation
- ✓ Mitigate potential impacts of flooding and other natural hazards at new development projects



# CHAPTER 6: MITIGATION ACTIONS

★ Green denotes also a MVP CRB Priority

## Top Actions

- ✓ Work with DCR Office of Dam Safety to ensure that the inspections of all dams are current.
- ✓ Ensure that administrators of schools, businesses, and municipal buildings have a shelter plan in the event of a tornado warning
- ✓ Culverts & Dams: inventory & evaluation and flood study regarding prevention
- ✓ Education & Outreach for Invasives, Wells, Trees, Flooding



# CHAPTER 6: MITIGATION ACTIONS

 Green denotes also a MVP CRB Priority

## Top Actions

- ✓ Encourage sign ups for outreach systems, priority populations in particular
- ✓ Communication plan for priority populations
- ✓ Generators for heating/cooling at critical buildings
- ✓ Develop policies for use for Library/Council on Aging
- ✓ In-person emergency communications plan
- ✓ Study the establishment of a mutual aid agreement with neighboring communities to administer NFIP following a major storm event

# CHAPTER 7: PLAN MAINTENANCE



## MONITORING THE PLAN

*The Town Administrator will monitor the mitigation actions to ensure that they are going to plan.*



## EVALUATING THE PLAN

*The Town will meet annually, and after major natural hazard events, to evaluate how well the plan is working.*



## UPDATING THE PLAN

*The Town will continue to update the Plan every 5 years.*



## INTEGRATING THE PLAN

*The Town will integrate data, information, and actions from the HMP into other local plans and initiatives, such as the Master Plan and the Open Space and Recreation Plan.*



## PUBLIC PARTICIPATION THROUGHOUT PLAN MAINTENANCE

*The Town is committed to conducting equitable and impactful public participation. Public engagement activities will align with the evaluation, monitoring, and plan update meetings as well as with large natural hazard events.*

# CHAPTER 8: ADOPTION

## Hazard Mitigation Plan (HMP) Planning Process



Assemble Core Team/Steering Committee



Determine Stakeholders



Hold Public Outreach Meeting



Workshops



Send to FEMA/Address Comments



Adopt



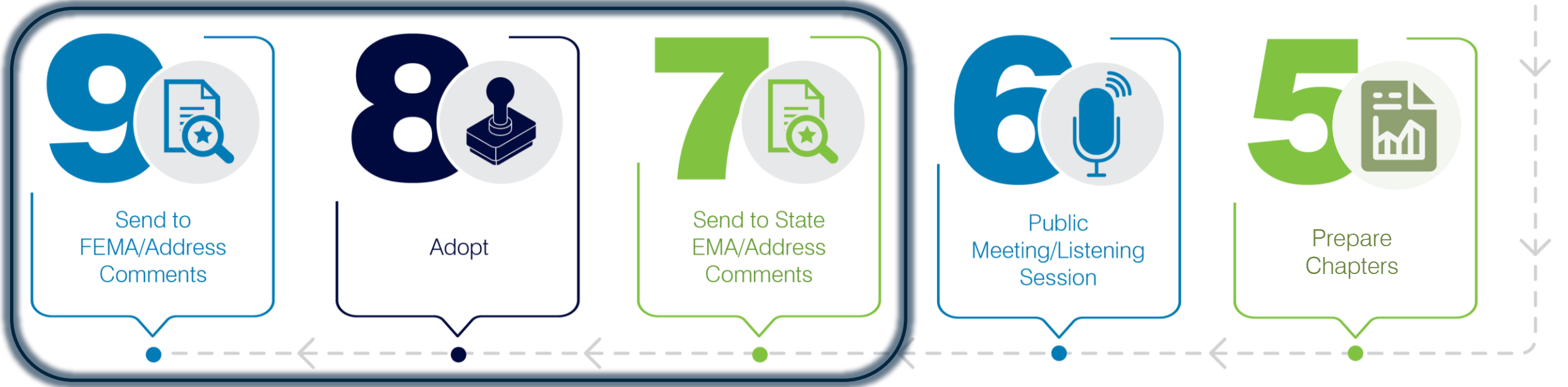
Send to State EMA/Address Comments



Public Meeting/Listening Session



Prepare Chapters



# AGENDA

01

Welcome & Introductions

02

About MVP and HMPs

03

Climate Change Projections for Top Hazards in Dunstable

04

Dunstable's HMP-MVP Plan

05

Questions and Discussion



## Questions?

Share additional feedback and comments  
with us through an online survey:  
<https://forms.office.com/r/qDr82Sk3XQ>



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