

TOWN OF TOLLAND
MUNICIPAL VULNERABILITY
PREPAREDNESS PLANNING AND
HAZARD MITIGATION PLAN UPDATE

Community Resilience Building Workshop #1
March 30, 2022



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Welcome & Introductions



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Notes on Virtual Participation

- This meeting is being hosted on Zoom
- Use chat box for technical questions
- Keep an eye on the chat box for links and other helpful information from meeting moderators

This meeting is being recorded

From Bin Wang to All panelists and other attendees:
Thanks Linda for noticing the background. Boston Harbor in the Fall.

From Shannon Hulst to All panelists and other attendees:
Shannon Hulst, Barnstable County's Cape Cod Cooperative Extension & Woods Hole Sea Grant, Floodplain Specialist

From David Azinheira to All panelists and other attendees:
Hello all -- David Azinheira with Tighe & Bond in Westfield, calling from my home office. Favorite body of water is probably the Burrage ponds in Halifax

From MassFM to All panelists and other attendees:
Please feel encouraged to post questions through the Zoom Q&A function, or to post a message here in the chat, throughout the presentations.

To: All panelists -

Your text can only be seen by panelists

Audio Settings ^

Chat

Raise Hand

Q&A

Leave Meeting

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Thank You to Tolland's MVP/HMP Committee!

- Jeff LaCase, Tolland Emergency Management Director
- Pat Storey, Council on Aging
- Alan Binder, Conservation Commission
- Charlie Higham, Pond Committee
- Ed Deming (ret.) / Kate Donovan, Highway Superintendent



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Workshop Agenda



Presentation - introduction/overview of MVP/HMP planning grant, climate change and natural hazards



Working together – develop inventory of infrastructure strengths & vulnerabilities



Presentation – overview of what mitigation actions are, what types are competitive for Action Grants



Working together – brainstorm mitigation actions to address infrastructure strengths & vulnerabilities



Presentation – next workshop topic, follow-up actions and survey to prioritize mitigation actions

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Why Are We Here?

- Help the Town of Tolland improve preparedness for and resilience to natural hazard events
 - Understand community strengths and vulnerabilities
 - Plan for more frequent and intense weather events
 - Engage multiple stakeholders in the planning process
 - Identify short and long-term mitigation actions
 - Improve access to funding for mitigation and adaptation

SMART INVESTING MITIGATION SAVES

EVERY \$1
SPENT ON
MITIGATION,
SAVES \$6
ON FUTURE
DISASTER
LOSSES



Natural Hazard Mitigation Saves: 2017 Interim Report
nhbs.org/mitigationsaves



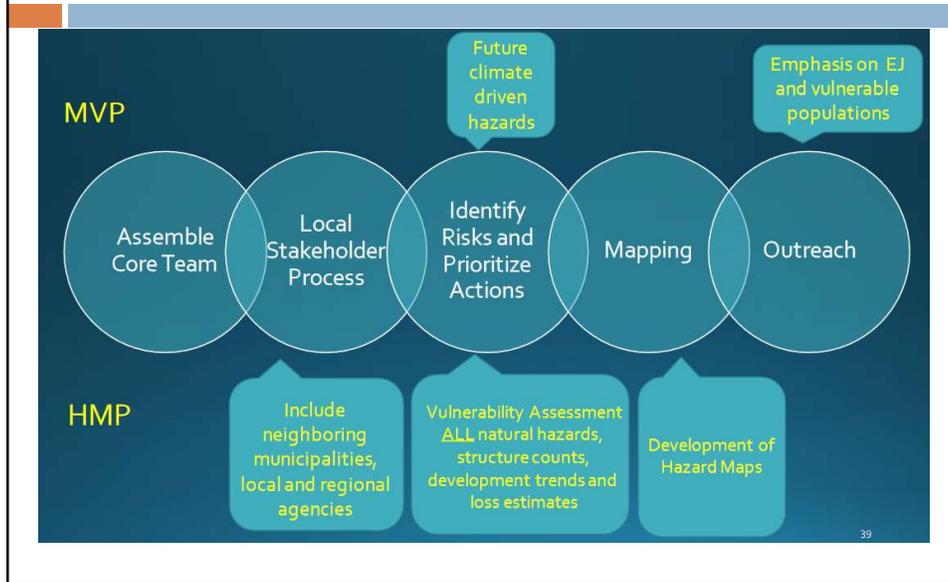
National Institute of
BUILDING SCIENCES



FEMA

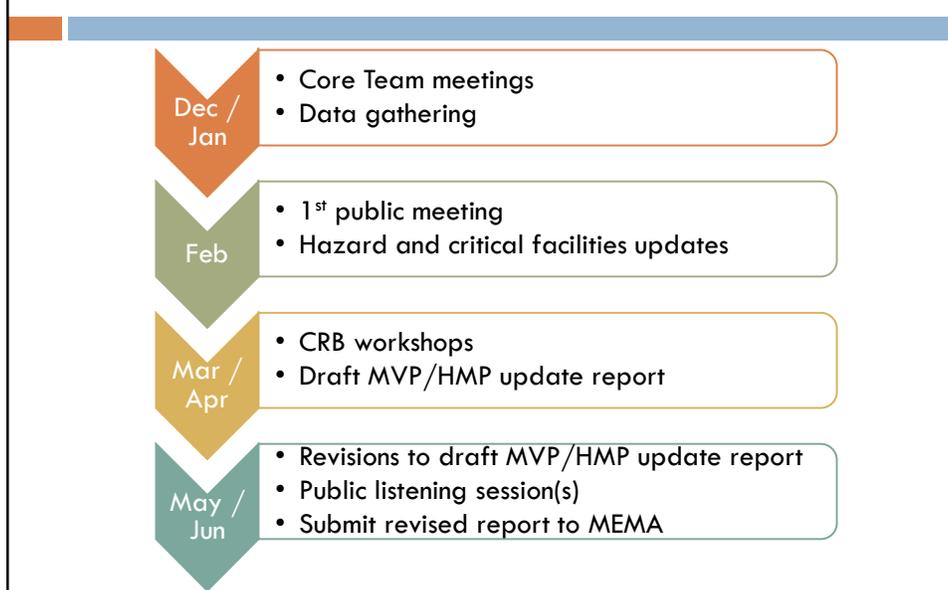
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MVP + HMP Grant



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Tolland MVP/HMP Planning Grant



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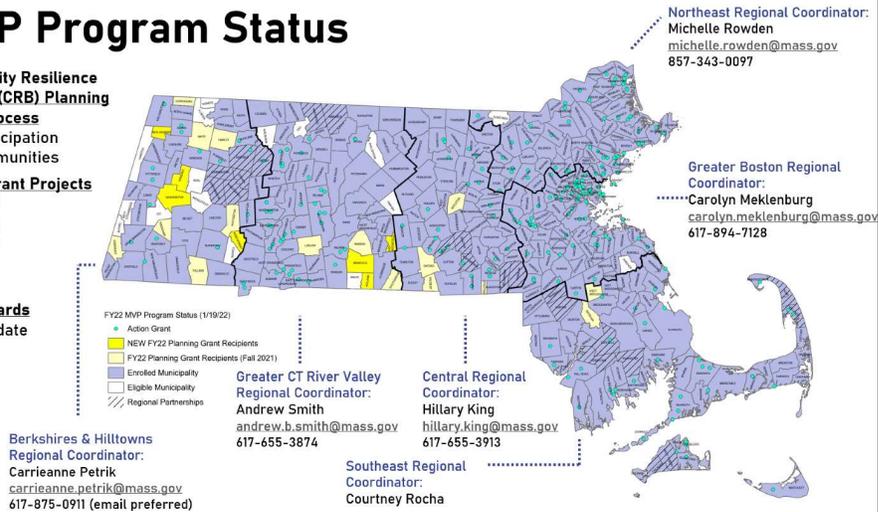
MVP Program

MVP Program Status

Community Resilience Building (CRB) Planning Grant Process
 95% participation
 335 communities

Action Grant Projects
 FY 18: 37
 FY 19: 36
 FY 20: 53
 FY 21: 41
 FY 22: 66

Total Awards
 \$65M to date



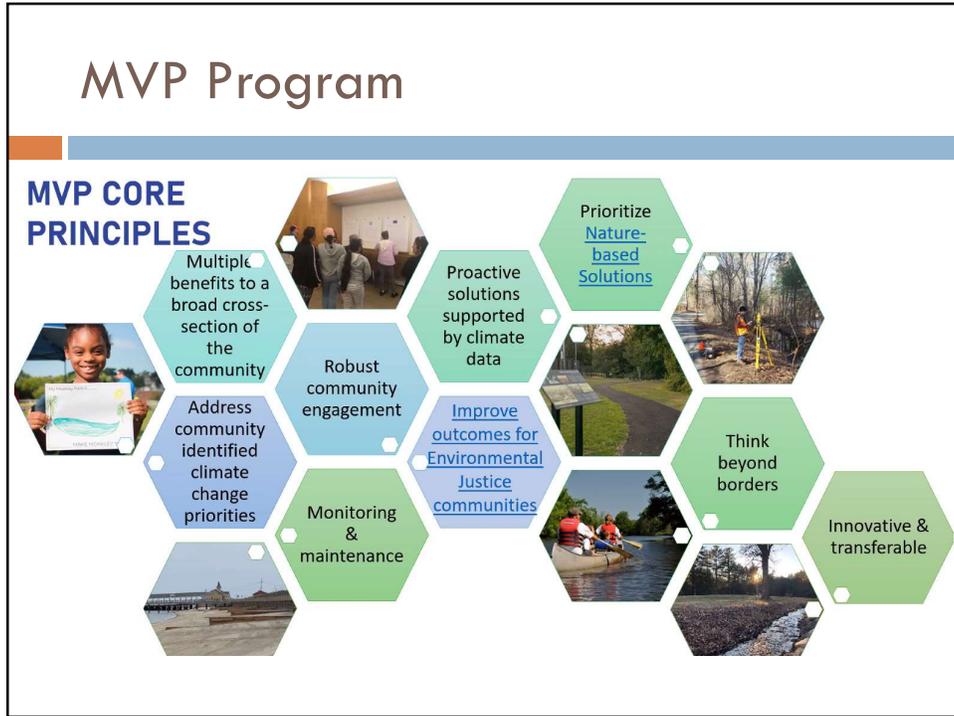
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MVP Process

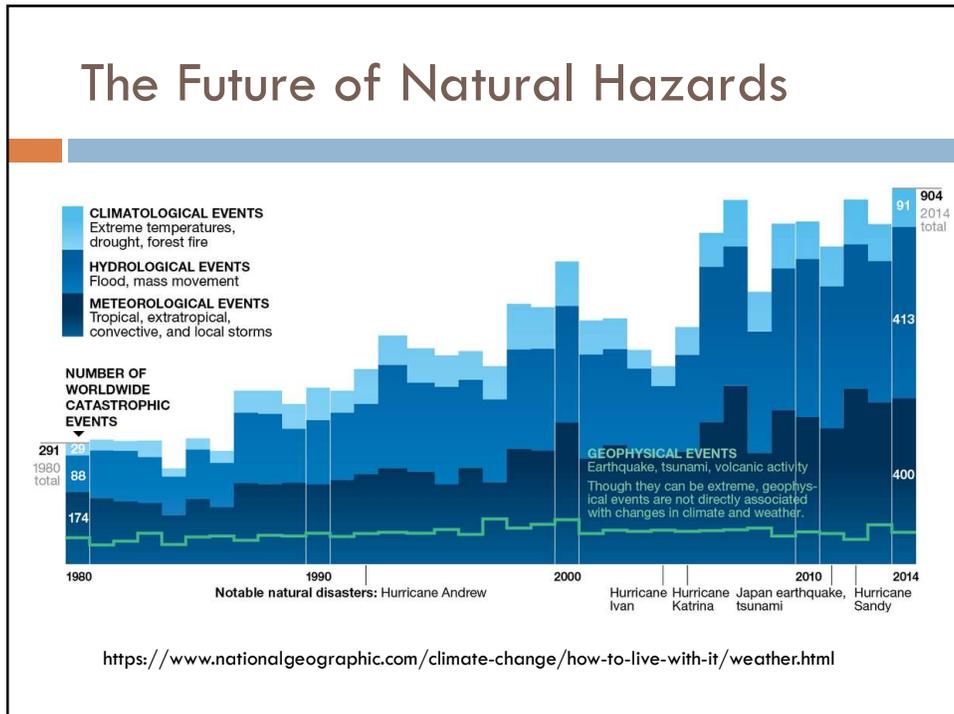
MVP Planning Grant



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The Future of Natural Hazards

- Weather = short-term local atmospheric conditions like rain, wind, or clouds

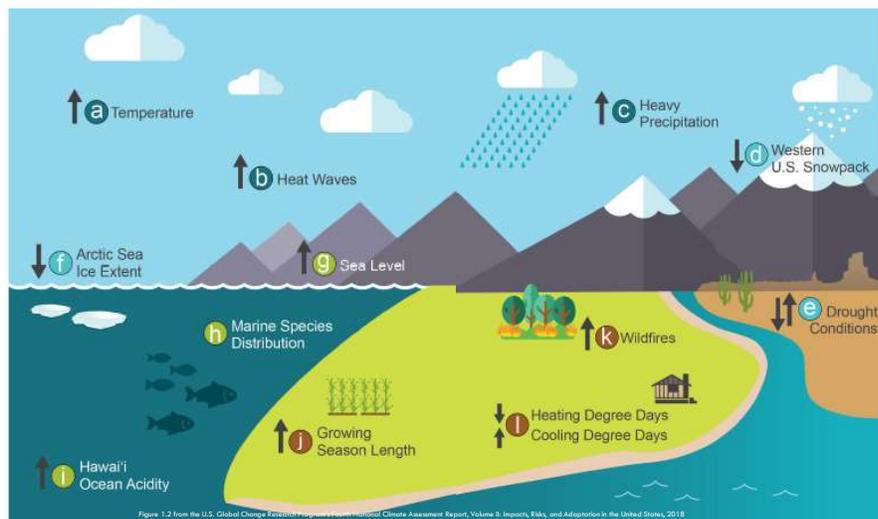
If you don't like the weather in New England, just wait a few minutes.

- Mark Twain

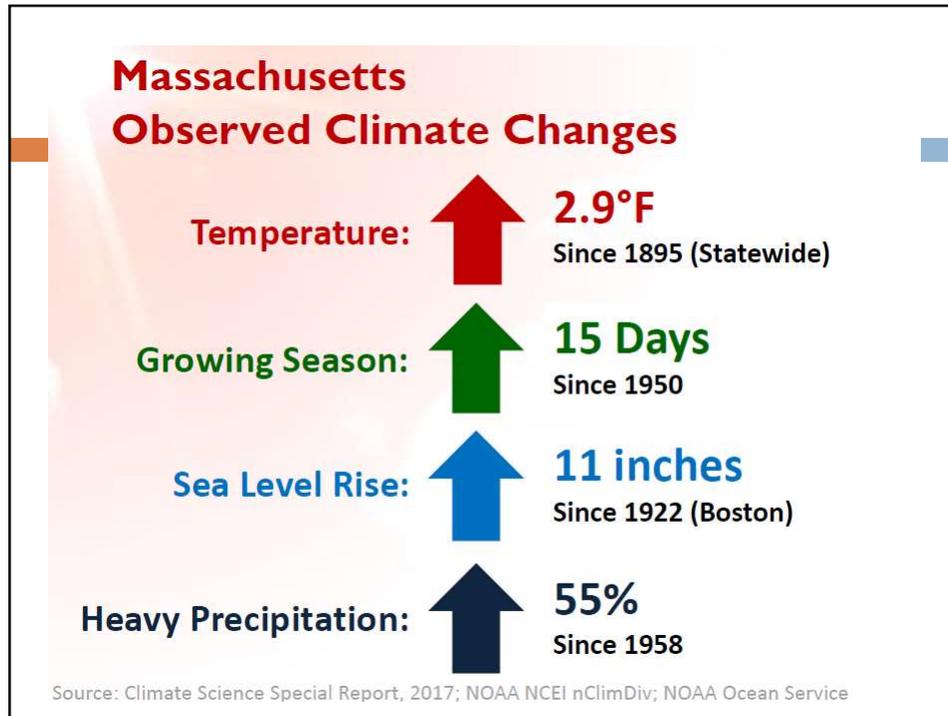
- Climate = long-term regional or global averages of temperature, humidity and rainfall patterns

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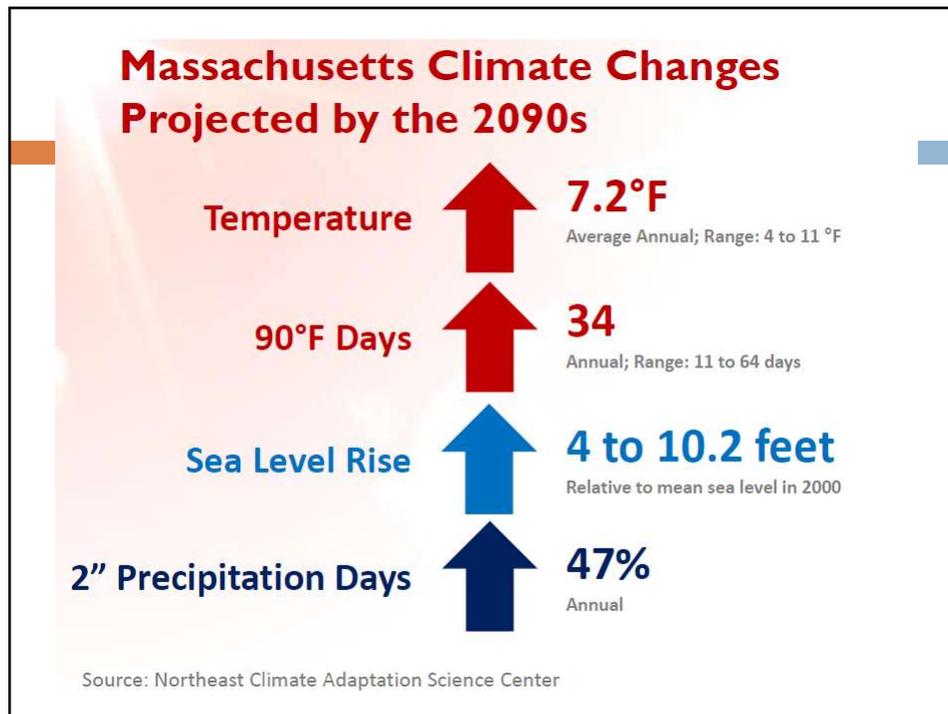
Climate Change – National Trends



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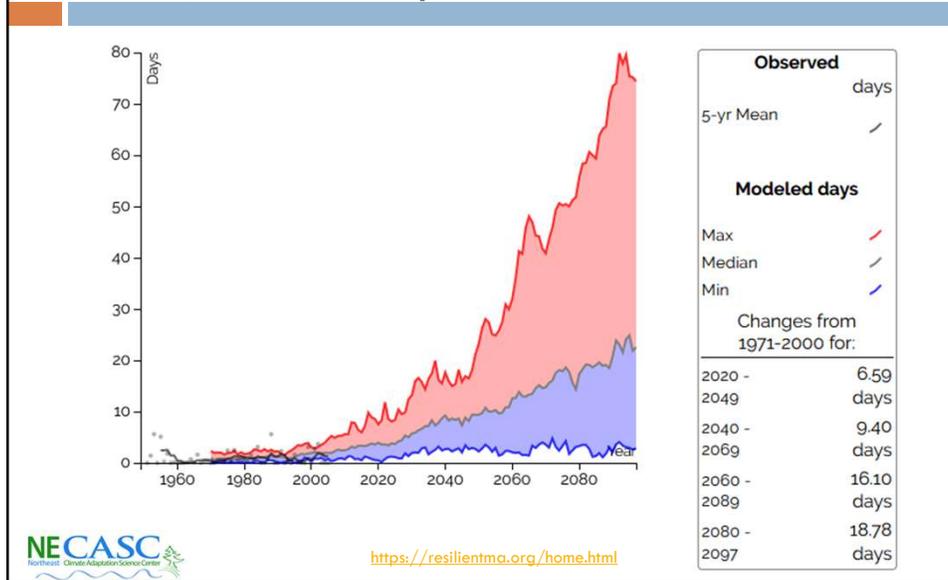


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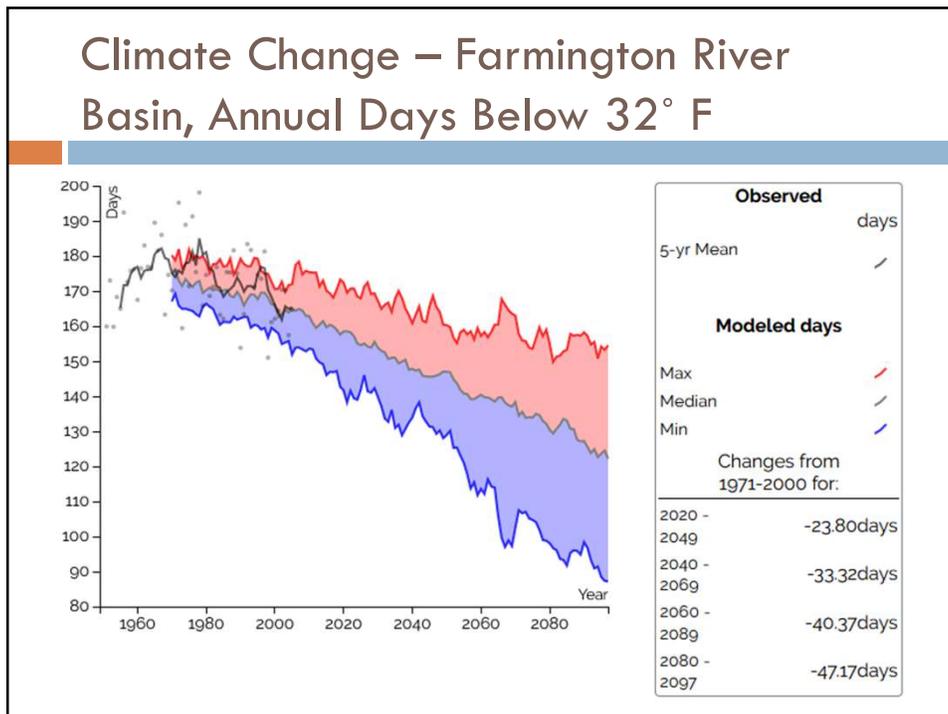
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Climate Change – Farmington River Basin, Annual Days Over 90° F



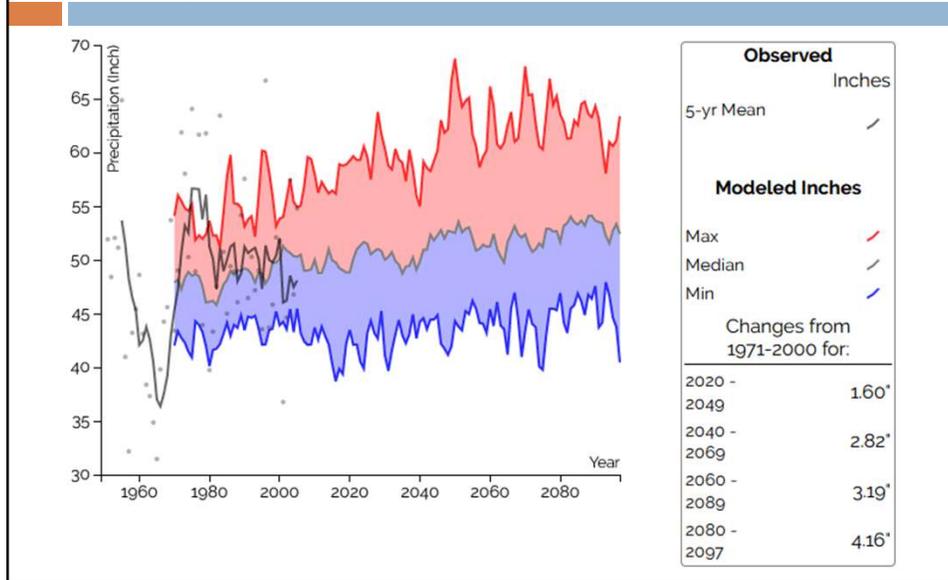
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Climate Change – Farmington River Basin, Annual Days Below 32° F



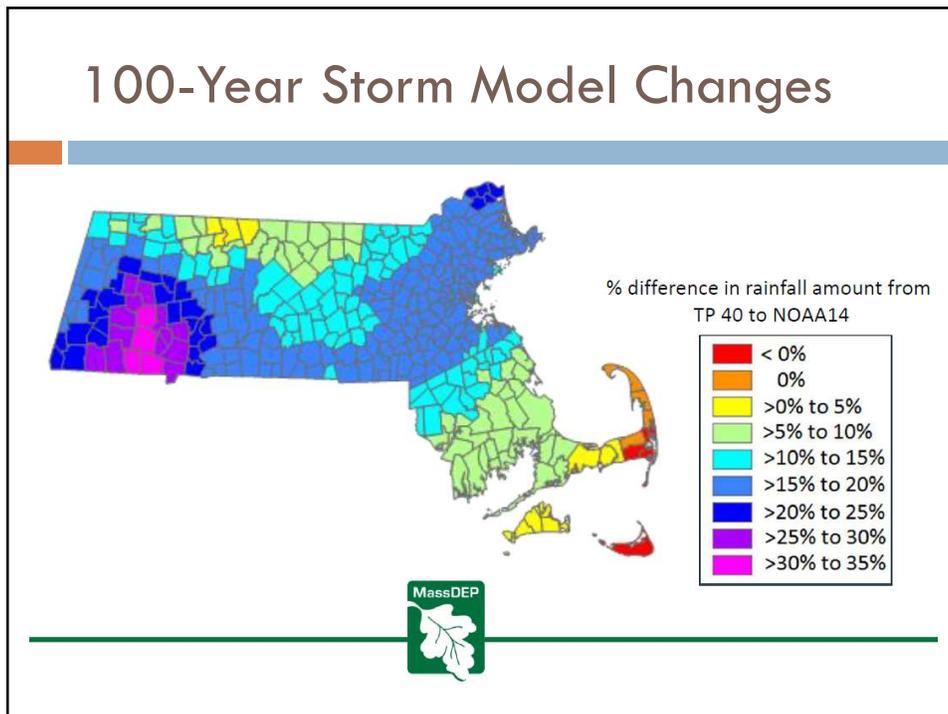
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Climate Change – Farmington River Basin, Annual Rainfall Amounts



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100-Year Storm Model Changes



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Top Natural Hazards in Tolland

Severe Winter
Storms /
Nor'easters

Severe
Thunderstorms /
Wind /
Tornadoes

Flooding

Wildfires /
Brushfires

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Changing Risk of Top Natural Hazards

Severe Winter Storms
/ Nor'easters

- More winter precipitation is occurring as rainfall and freezing

Severe Thunderstorms
/ Wind / Tornadoes

- Rainfall patterns are changing to less frequent but more intense rainfall events

Flooding

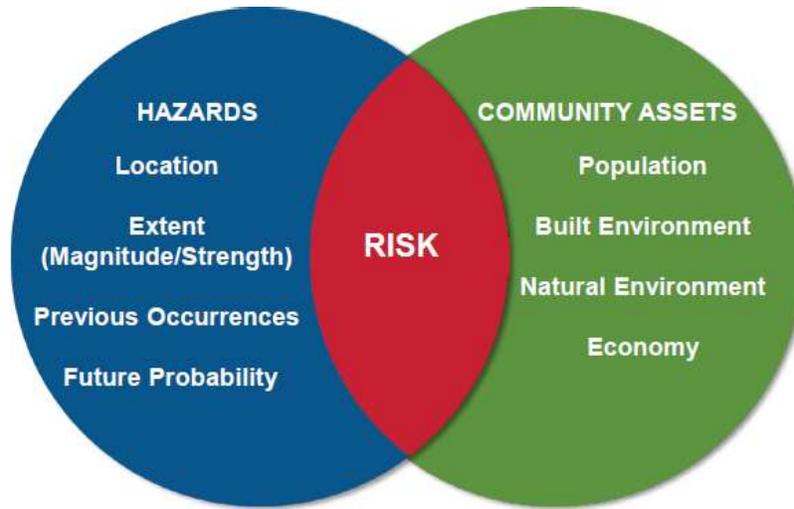
- Potentially undersized stormwater and stream crossings relative to future large storm events

Wildfires / Brushfires

- Longer periods between rainfall events and higher temperatures increase risk

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Community Risk from Hazards



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So, What Now?



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What Are Community Components?



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Infrastructure Assets

- What infrastructure and facilities in Town are exposed to current and future natural hazards?
- What infrastructure and facilities are especially at risk or improves the Town's ability to recover from a natural hazard event?
- Examples:
 - ▣ Pole-based electrical and communication lines
 - ▣ Town and state-owned roads, evacuation routes
 - ▣ Cul-de-sacs and dead-end streets
 - ▣ Culverts
 - ▣ Dams



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Group Exercise

Use risk matrix to identify Infrastructure asset strengths and weaknesses in the Town of Tolland

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Mitigation Actions - Definitions

RESILIENCE

The ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner.

=

MITIGATION

aims to reduce the causes of climate change

+

ADAPTATION

involves modifying our decisions, activities and ways of thinking to adjust to a changing climate



Definitions taken from the Massachusetts 2018 State Hazard Mitigation and Climate Adaptation Plan and Credits in a Changing Climate report (Adaptation.NRCa.gov/csl)

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Mitigation Actions - Considerations



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MVP Action Grant Project Types

- Vulnerability and Risk Assessment
 - Community Outreach and Education
 - Local Bylaws, Ordinances, Plans, and Other Management Measures
 - Redesigns and Retrofits
 - Nature-Based Flood Protection, Drought Mitigation, Water Quality, and Water Infiltration Techniques
 - Nature-Based Infrastructure and Technology Solutions to Reduce Vulnerability to Extreme Heat and Poor Air Quality
 - Nature-Based Solutions to Reduce Vulnerability to Other Climate Change Impacts
 - Ecological Restoration and Habitat Management to Increase Resiliency
- Energy Resilience
 - Chemical Safety
 - Land Acquisition for Resilience
 - Subsidized Low-Income Housing Resilience Strategies
 - Mosquito Control Districts

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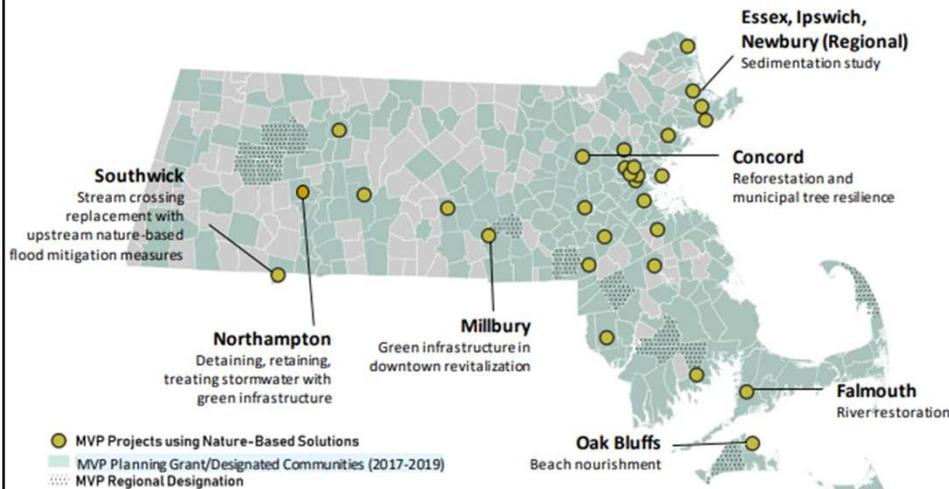
Mitigation Actions – Nature-Based Solutions

- Nature-Based Solutions are projects that:
 - Address hazards like flooding, erosion, drought, and heat islands
 - Restore, protect, or manage natural systems
 - Mimic natural processes
 - Are cost-effective, low maintenance, and have co-benefits for public health, safety, and quality of life



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Mitigation Actions – Nature-Based Solutions



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Mitigation Actions

Projects that are NOT MVP-competitive:

- Maintenance
- Diesel generators
- Tree removal
- Emergency preparedness
- Hard infrastructure without core MVP components/priorities

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Group Exercise

Use risk matrix to identify mitigation strategies to address Infrastructure asset strengths and weaknesses in the Town of Tolland

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Next Steps

Continue to reach out to stakeholders

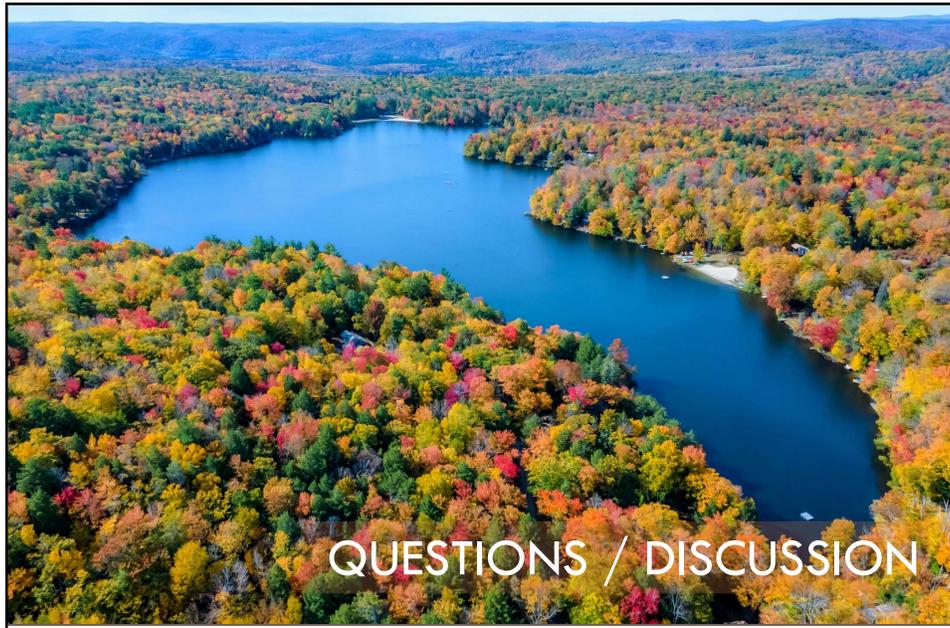
Workshop #2, Wednesday
April 6th, 7:00-9:00 PM

Workshop #3, Wednesday
April 13th, 7:00-9:00 PM

Post-workshop mitigation
action prioritization survey



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QUESTIONS / DISCUSSION

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