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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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## Welcome & Introductions



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## Thank You to Tolland's MVP/HMP Committee!

- Jeff LaCasse, 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 environmental strengths & vulnerabilities



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



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

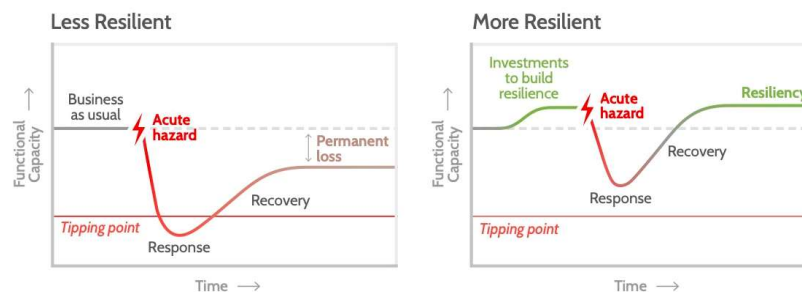


Presentation – next workshop topic, follow-up actions and survey to prioritize mitigation actions

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## Why Are We Here?

- Help the Town of Tolland improve preparedness for and resilience to natural hazard events

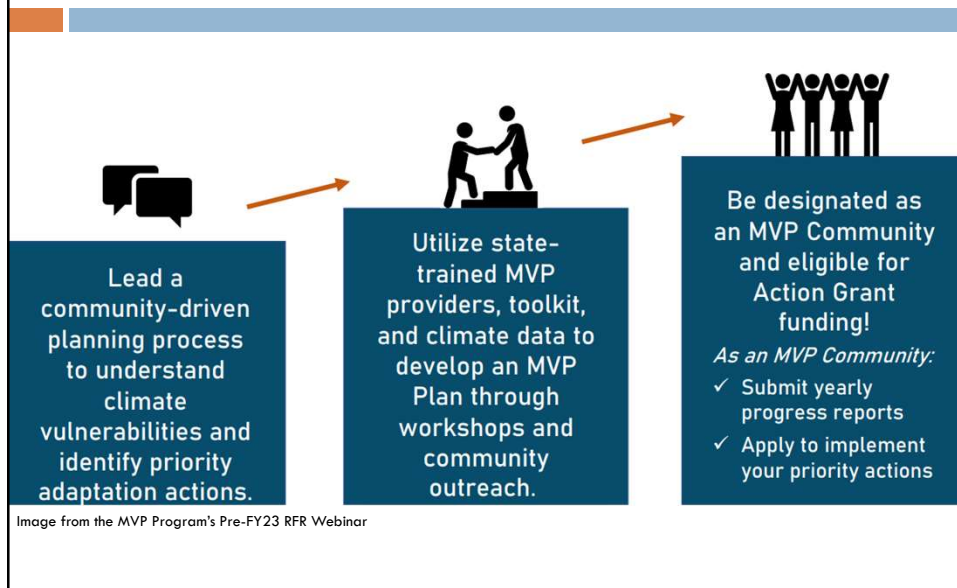


U.S. Climate Resilience Toolkit: <https://toolkit.climate.gov/image/3144>

*Resilient communities don't just recover—they continuously build capacity to reduce the impacts of future climate events*

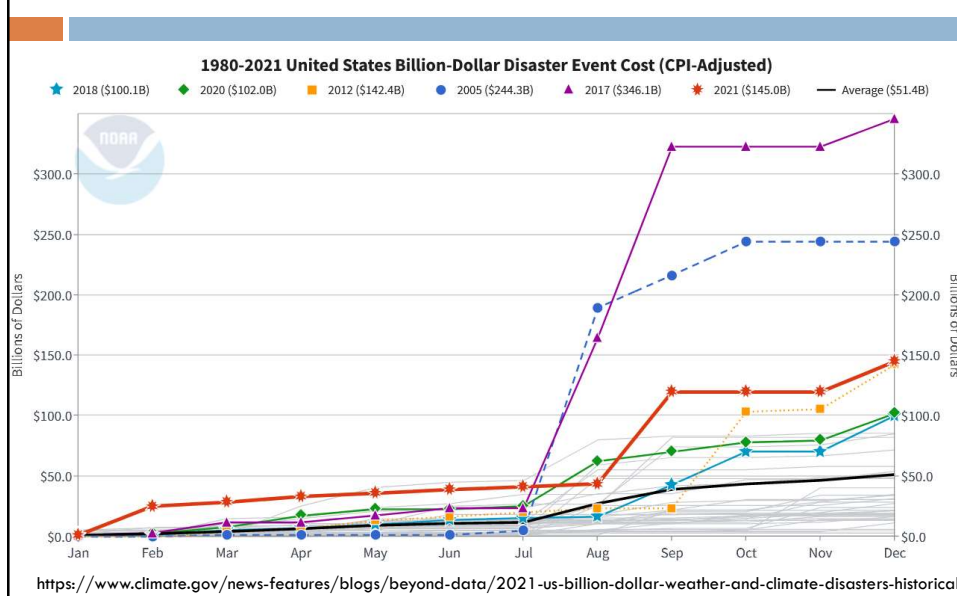
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## MVP Planning Grant



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## The Future of Natural Hazards



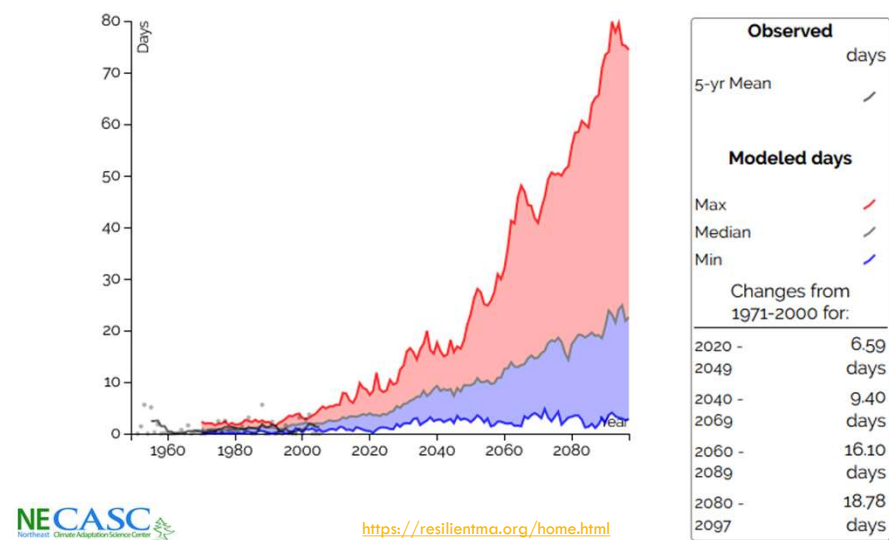
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## Climate Change - Statewide

Massachusetts Climate	Observed Changes	Projected Changes by 2090
Temperature	↑ 2.9° F since 1895	↑ 7.2° F annual average
Growing Season	↑ 15 days since 1950	
90° Days		↑ 34 days annually
Sea Level Rise	↑ 11 in since 1922	↑ 4 to 10.2 ft above MSL
Heavy Precipitation	↑ 55% since 1958	↑ 47% annually

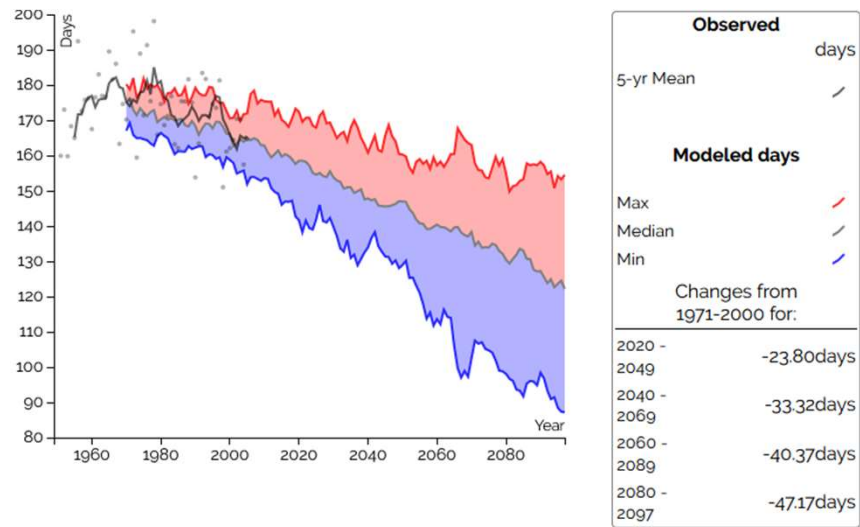
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## Climate Change – Farmington River Basin, Annual Days Over 90° F



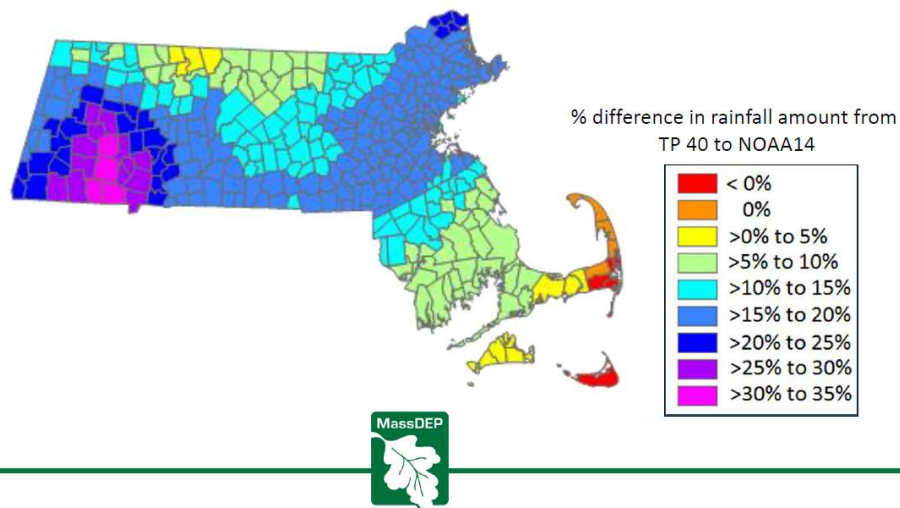
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## Climate Change – Farmington River Basin, Annual Days Below 32° F



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## 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

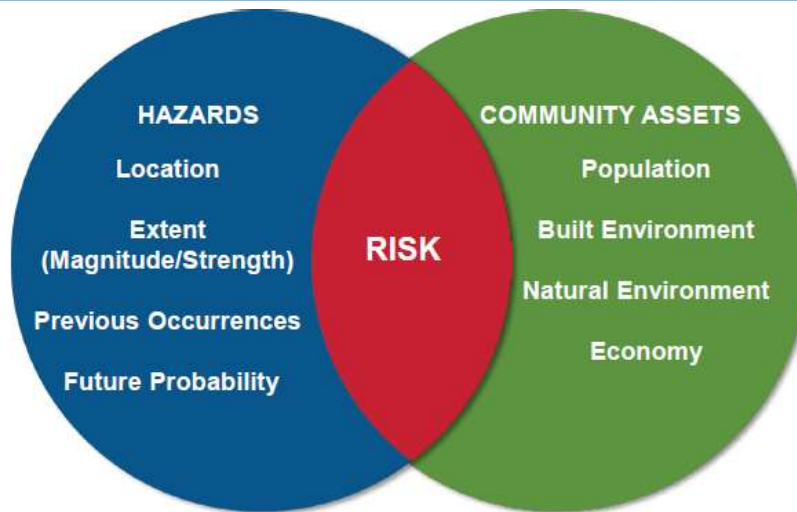
- Potentially undersized stormwater and stream crossings relative to future large storm events

Wildfires / Brushfires

- Longer periods between rainfall events and higher temperatures increase risk

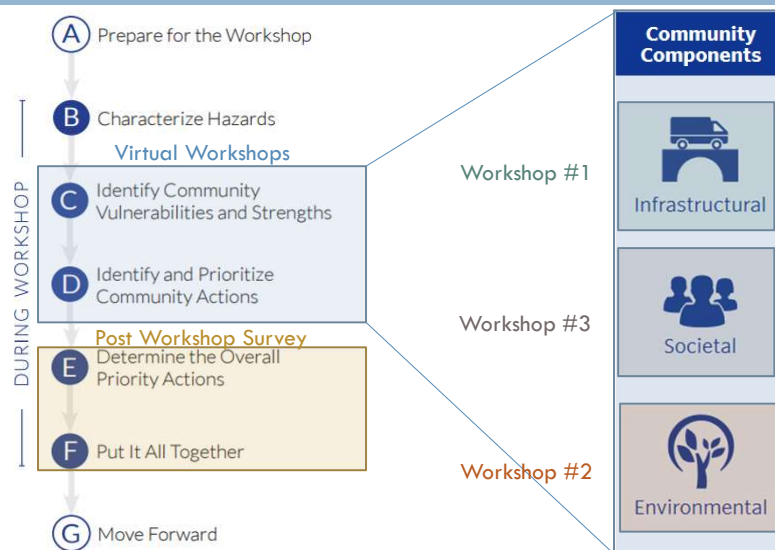
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## Community Risk from Hazards



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## So, What Now?



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## What Are Community Components?



Infrastructure



Society



Environment

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## Environmental Assets

- What natural resources are important to your community?
- What benefits do these natural resources provide?
  - ▣ Storm buffering
  - ▣ Fire breaks
  - ▣ Erosion control
  - ▣ Water quality improvement
  - ▣ Slope stabilization
  - ▣ Recreation
- Which natural resources are exposed to current and future hazards?
- What have been the effects of hazards on these natural resources?
- Where are the high-risk areas and what vulnerabilities exist for the environment?



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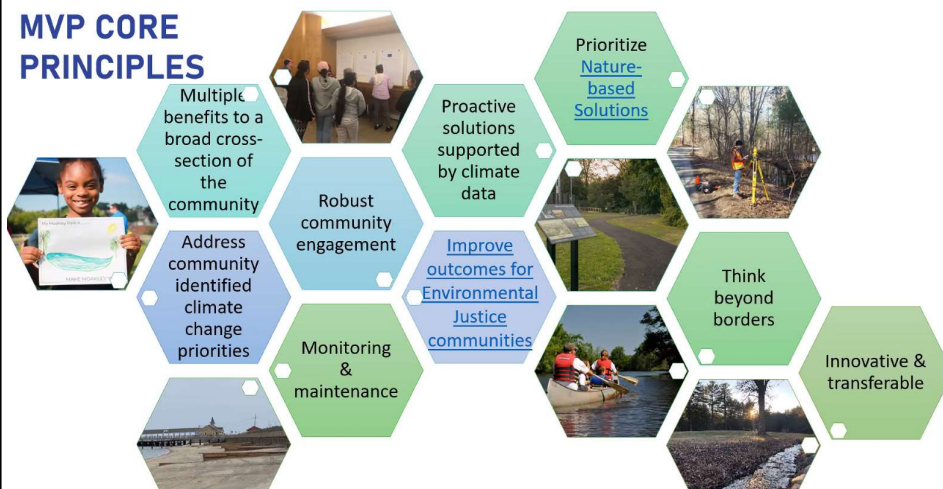
## Group Exercise

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

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## Mitigation Actions - Considerations

### MVP CORE PRINCIPLES



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## MVP Action Grant Project Types



Planning, Assessments, Capacity Building, and Regulatory Updates



Design and Permitting



Construction and On-the-Ground Implementation

Note: Demonstrate necessary permits & permissions have been secured

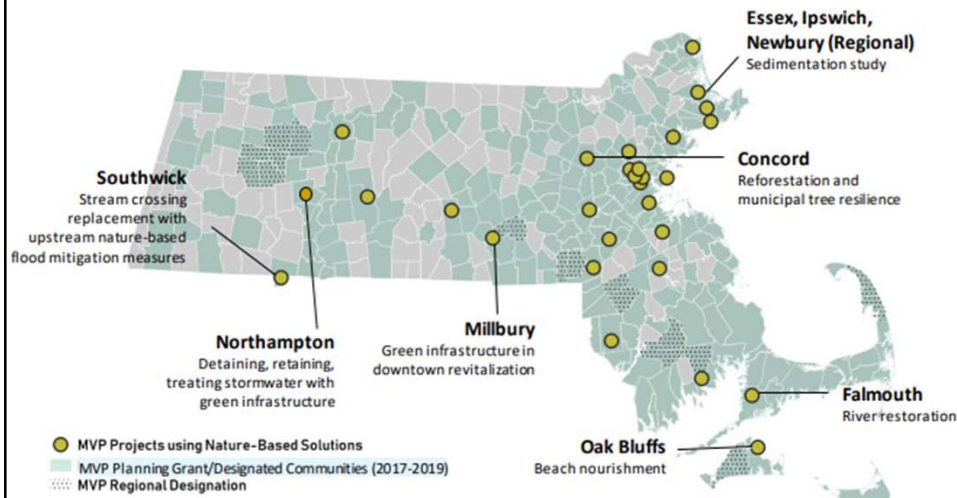
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## Mitigation Actions – Nature-Based Solutions



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## Mitigation Actions – Nature-Based Solutions



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## Projects That Are Not MVP Competitive

- Diesel generators
- Tree removal
- FEMA HMPs
- Academic studies that are not directly linked to implementation
- Feasibility or design of solar or solar + battery systems (installation ok)
- Emergency preparedness projects that don't incorporate climate projections/planning
- Projects that repair to previous conditions without consideration of climate projections

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## Mitigation Actions - Environmental Project Examples

Protect/manage lands located in flood zones

Install green infrastructure to manage stormwater

Stabilize vulnerable slopes with native vegetation

Develop forest management plan that diversifies the age structure of forests in Town

Coordinate with State Park regarding evacuation procedures

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## Group Exercise

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

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## Next Steps

Continue to reach out to stakeholders

Workshop #3, Wednesday  
April 13<sup>th</sup>, 7:00-9:00 PM

Post-workshop mitigation  
action prioritization survey

Public listening session in  
May / June timeframe



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QUESTIONS / DISCUSSION

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