

Municipal Vulnerability Preparedness (MVP) Program



Community Resilience Building (CRB) Workshop
Hudson, MA – February 6, 2019



Agenda

- Climate Adaptation and Resilience Planning in Hudson (10:00 – 10:40)
- Q&A (10:40-10:50)
- Break (10:50-11:00)
- Adaptation Stations (11:00-11:45)
- Q&A and Feedback (11:45-12:00)

MVP in Your Community

- Hudson awarded \$18,000 from Executive Office of Energy and Environmental Affairs (EEA)
- Funds will be put towards achieving MVP Climate Community Designation
- Establishes eligibility for future grant opportunities to enhance Hudson's resilience to climate change

Outcomes of this Process

- MVP Community Designation
- Eligibility for “Action Grants”
- Increased competitiveness for other grant funding
- Public education and awareness
- Baseline information for future planning and implementation efforts
- Best management practices for resiliency

Core Team Planning and Next Steps

- Core Team Risk Assessment (10/3/18)
- Core Team Risk Assessment(11/15/18)
- Community Resilience Building Workshop #1 (12/11/18)
- Community Resilience Building Workshop #2 and #3 (2/6/2019 and 2/14/19)
- Submission of Findings Report (March 2019)
- Public Listening Session (TBD)

Climate Change in Hudson

Identifying the Hazards



Temperature



Precipitation



Extreme Weather

- ↑ Days over 90°F (10-30 days by 2050)
- ↑ Annual Precipitation (1-23% by 2050)

Climate change challenges the ways that community resources are managed

The Town of Hudson has experienced 17 natural hazards that triggered federal or state disaster relief funding between 1991-2017

Planning for Climate Change in Hudson

Climate change gradually changes the distribution of risk

MVP Community Resilience Building Framework

1. Identify Hazards
2. Categorize Community Vulnerabilities and Strengths
3. Develop Solutions



Extreme Temperature



Flooding



Extreme Snow and Ice Events

Planning for Climate Change in Hudson Stakeholder Introduction

- Which “hazard” concerns you the most?
- Please describe how you see climate change affecting your community.



Planning for Climate Change in Hudson

Climate change gradually changes the distribution of risk

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Extreme Temperature



Flooding



Extreme Snow and Ice Events

Categorizing Vulnerabilities and Strengths

Infrastructural

- Built Infrastructure
 - Roads
 - Bridges
 - Dams
 - Critical Municipal Buildings
- Water Management Infrastructure
 - Storm Drainage
 - Wastewater Treatment
 - Drinking Water



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Categorizing Vulnerabilities and Strengths

Societal

- Emergency Preparedness and Response
 - Assembly Areas
 - Remote Emergency Command Center
 - Emergency Communication Systems



Categorizing Vulnerabilities and Strengths

Environmental

- Open Space and Natural Resources
 - Bank Erosion
 - Water Quality
 - Reservoirs
 - Open Space Connectivity



Photo source: OARS

Developing Solutions Together...

- Reduce vulnerability and protect our assets to the harmful effects of climate change
 - Infrastructure
 - Community
 - Environment
- Making the most of any potential beneficial opportunity associated with climate change
- Co-Benefits
- Consider Planning Timeframes
 - Short Term
 - Long Term

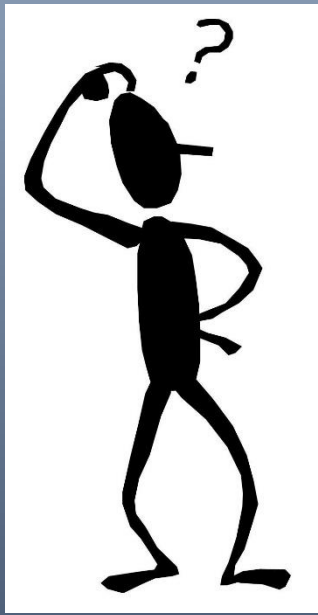
Why we are here! Developing Solutions Together...

- Share and discuss ideas
- Goal: Develop the MVP table & report - a snapshots of Hudson's most important assets and strategies to protect those assets

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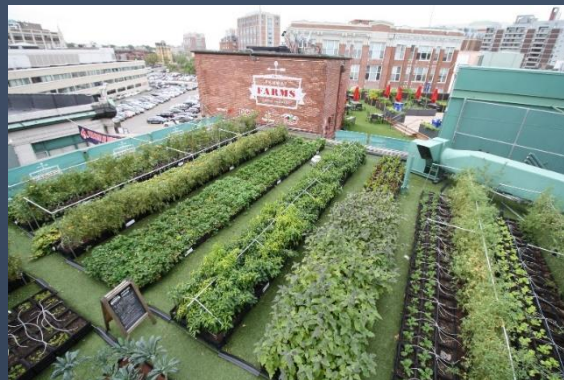
MVP- Action Grant Awards

- \$5 million awarded by the Commonwealth in 2018
- Multiple grants awarded per municipality
- Bonus points: *proposals that incorporate **nature based solutions** as part of strategies to improve community resiliency*



Nature Based Solutions

- Green infrastructure
- Using a community's natural resources
- Ecosystem services
- Ecological engineering
- Ecosystem based mitigation
- Sustainable management
- Using natural systems to challenges
- “Inspired and supported by nature”
- “Actions that work with and enhance nature”



Action Grants- 2018 Awards

■ Regulation and Policy (\$103,000):

- Bylaw development, audits, reviews and updates: Mendon (\$8000) – Brookline (\$56,000)

■ Direct Actions (\$1.3 million):

- Public Education, Communication and Demonstrations
 - Arlington: Flood Management Demonstrations (\$400,000)
 - Natick: Water Conservation Campaign (\$16,600)
- Tree Planting Plan : Natick (\$9,000)
- Design and Permitting of Road Flood Protection: Montague (\$34,000)
- Ecological Restoration: Pond Restoration, Manchester by the Sea (\$88,000)
- Implementation of MVP recommendations : Deerfield (\$47,000)

Action Grants- 2018 Awards

- Drainage Modeling: Medford (\$60,000)
- Feasibility/Design Studies (\$1.1 million):
 - Sanitary Trunkline Relocation Assessment: Salem (\$345,000)
 - Park Feasibility Study and Permitting: Winthrop (\$157,000)
- Vulnerability Assessments (\$659,000)
 - Water/Sewer Infrastructure: Charlton/Spencer (\$300,000)
 - Water/Sewer Infrastructure Green Emergency Power Study: Holden (\$25,000)
- Municipal Planning (\$60,000):
 - Open Space and Recreation Plan Update- Medford (\$60,000)

Next Steps

- Q/A

- Break

- Buffalo Bayou, Houston, TX: Short video
https://www.youtube.com/watch?v=zBc_1ROy-Kk&feature=youtu.be

- Discussion groups

- Interactive Mapping- what are the most important assets and what can we do to protect them
- Building on Past Efforts
- Climate Change Data Clearinghouse

Wrap Up

- Debrief
- Homework for next week!
 - Climate change adaptations around us, see something- share it!
 - #MVPHudsonMA (Instagram)

See you on February 14th 9:00am!