Shaping the Climate Discussion

RCP Network Gathering November 13, 2019 UMass Amherst

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Overview

- Development Trends and Challenges
- Linkage between Climate Change and Land Use
- Municipal Planning for Resilience
- Nature Based Solutions Community Driven
- Resources

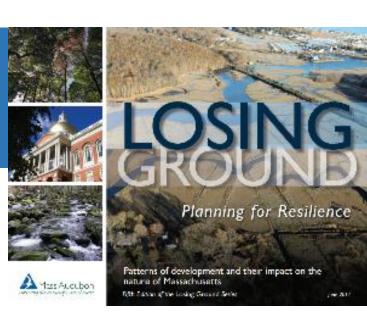
Shaping the Future of Your Community

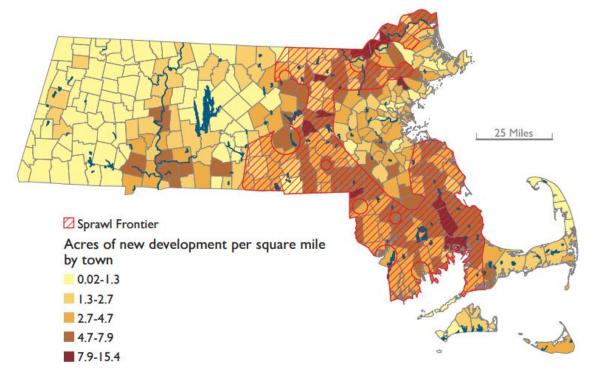




Created in 2009 to implement Losing Ground recommendations

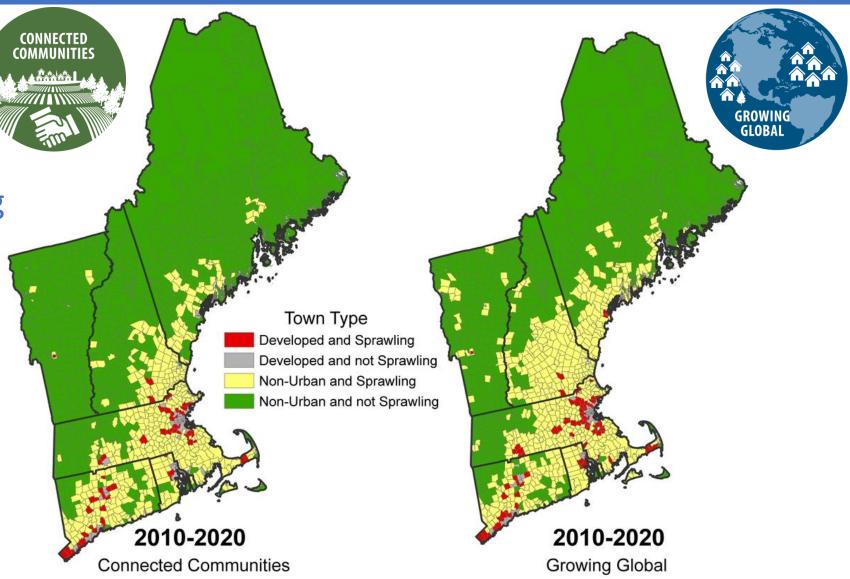
Assists the fastest-developing communities chart a more **sustainable future** through customized community workshops and direct assistance





New England Landscape Futures

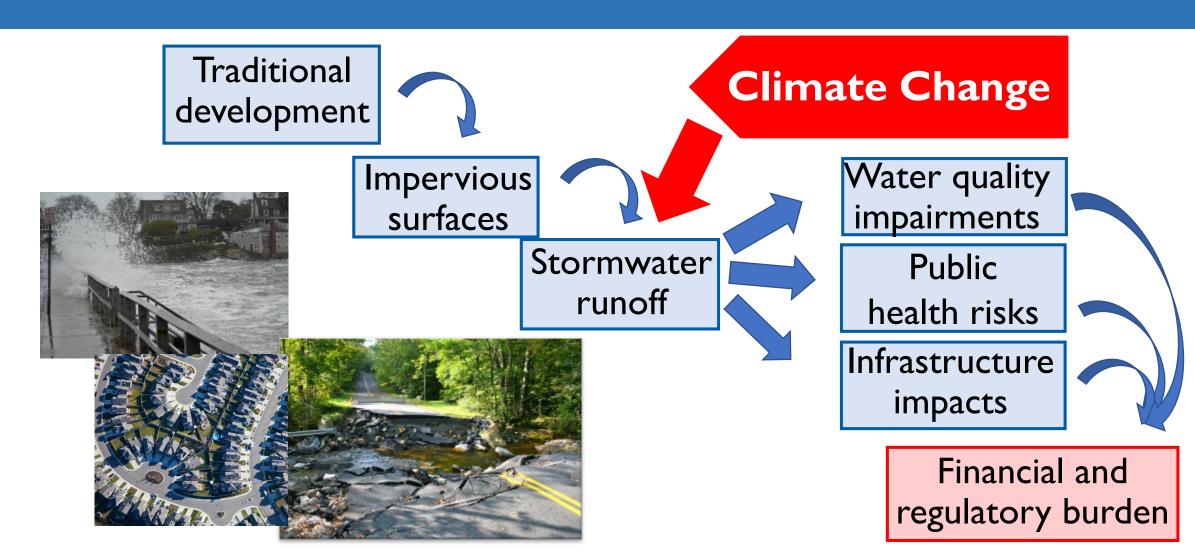
newenglandlandscapes.org







Multiple Stressors



A Different Direction: Greening Your Community

Green Infrastructure



Increased infiltration



Reduced runoff & more groundwater



Improved water quality

Intact infrastructure



Regulations met Money saved

MVP: State and local partnership to build resiliency to climate change

Planning Grants & Certification

- Planning for climate impacts and changes in natural hazards
- Planning workshop and report consider strengths and vulnerabilities:
 - Society
 - Environment
 - Infrastructure

Action Grants - Implementation

- Implementation of MVP Plans
- Nature Based Solutions prioritized











Identify CC impacts and hazards

Complete vulnerability assessment

Develop and prioritize actions

Take Action

Community Resilience Building 📑 🐸 🕸









Overview of the Process (Steps & Tasks)

- Prepare for the Workshop
- Characterize Hazards
- Identify Community Vulnerabilities and Strengths
- Identify and Prioritize Community Actions

WORKSHOP

DURING

- Determine the Overall Priority Actions
- Put It All Together
- Move Forward

- Establish a core team with goals.
- (2) Engage stakeholders.

Community Resilience Building Workshop Guide

- Prepare materials for workshop.
- (4) Decide on participant arrangements.
- Identify past, current, and future impacts.
- Determine the highest-priority hazards.
- Identify infrastructural vulnerabilities and strengths.
- Identify societal vulnerabilities and strengths.
- Identify environmental vulnerabilities and strengths.
- Identify and prioritize infrastructural actions.
- Identify and prioritize societal actions.
- Identify and prioritize environmental actions.
- Identify highest-priority actions.
- Further define urgency and timing.
- Generate final workshop products.
- Continue community outreach and engagement.
- Secure additional data and information.
- (3) Inform existing planning and project activities.

Community Components







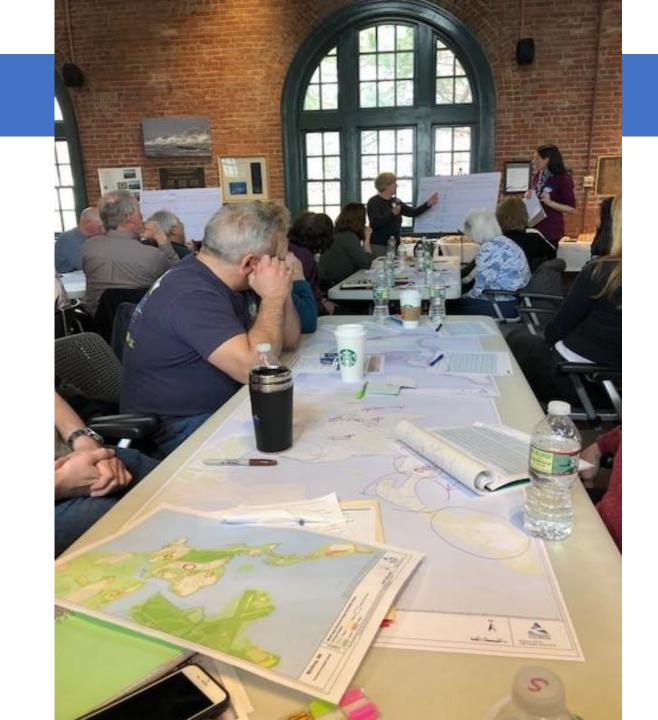
Societal



www.CommunityResilienceBuilding.org

Why MVP?

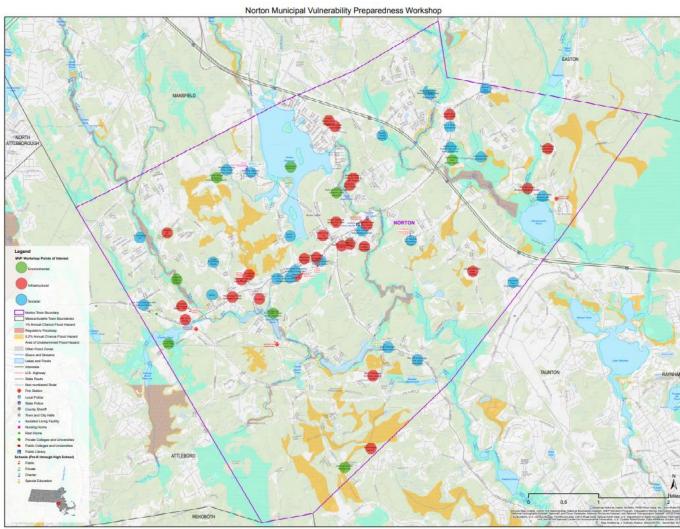
- Collaborative, stakeholderdriven process
- Informs long-term local planning efforts
- Positions community for funding opportunities



www.CommunityResilienceBuilding.com Community Resilience Building Risk Matrix Top Priority Hazards (tornado, floods, wildfire, hurricanes, earthquake, drought, sea level rise, heat wave, etc.) **H-M-L** priority for action over the **S**hort or **L**ong term (and **U**ngoing) Priority Time $\underline{\mathbf{V}}$ = Vulnerability $\underline{\mathbf{S}}$ = Strength Short Long H-M-L Ongoing Location Ownership V or S Features Infrastructural Societal **Environmental**

Community-driven Planning





Hazards











Nature-based solutions

Open space preservation

Ecosystem restoration

Low Impact Development

Municipal benefits





Avoided Costs





Enhanced Safety





Environmental Services

Why Nature Based Solutions

- Every \$1 invested in Disaster Mitigation saves \$6.
- NBS projects can be cheaper especially over the lifespan of a project (Millennium Ecosystem Report)
- NBS projects provide multiple benefits.



Charles River Natural Valley Storage Area, US Army Corps of Engineers: http://www.nae.usace.army.mil/Missions/Civil-Works/Flood-Risk-Management/Massachusetts/Charles-River-NVS/13

MVP Program To Date

MVP Designations:

249 Communities(71% of the Commonwealth)

Action Grant Projects:

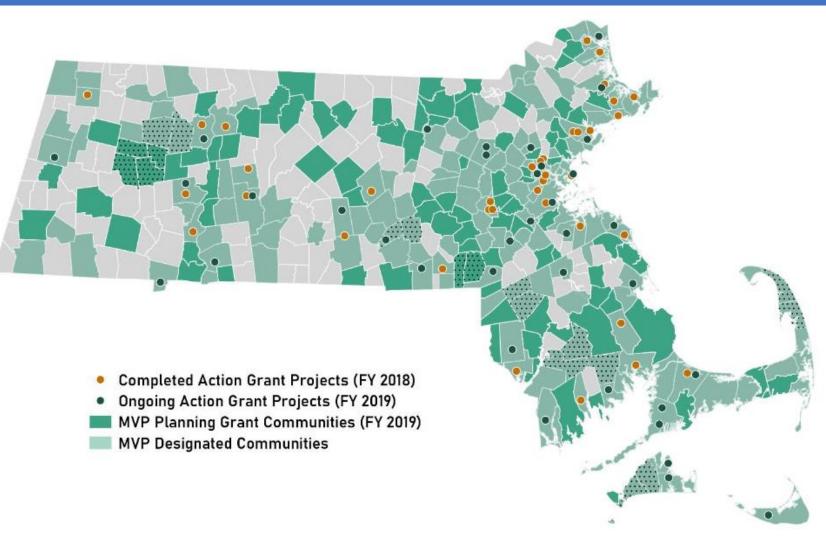
73 projects from FY 18 - FY19

Total Awards:

\$17M+ in Planning and Action Grants







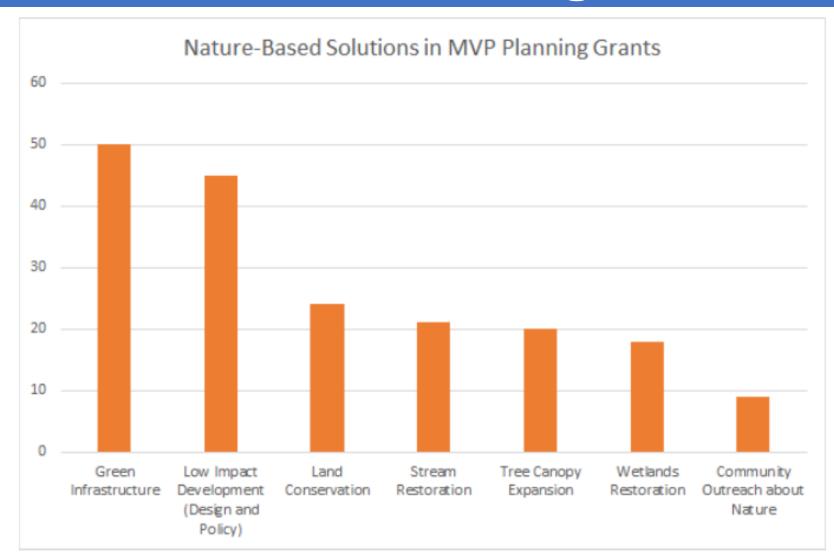
Nature Based Solutions in the Planning Process

65%

of towns
included naturebased solutions
in their priority
actions









Supporting Communities

Taunton Watershed
Undeveloped
&
Unprotected
Green
Infrastructure
Network

Legend

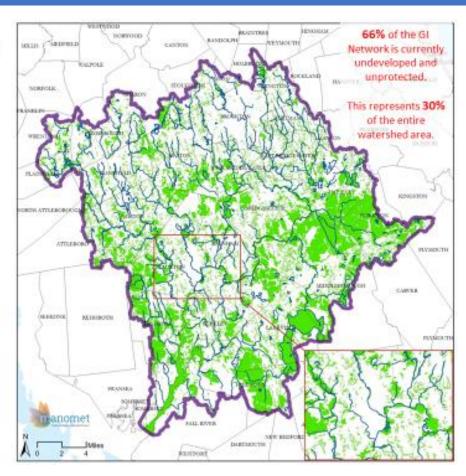
Undeveloped and Unprotected

Town Boundaries

Network

Watershed

Msjor Streams



20 partner groups providing services to communities in the watershed

- Resilience Planning
- Bylaw Review
- Peer to Peer Training
- Support for projects, connections to resources and grants













Common Themes and Approaches

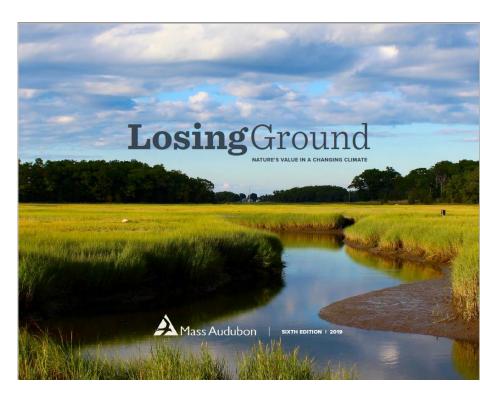
- Community-driven process
- Prioritize actions based on local values and issues
- Role of local planning, land protection and zoning/regulation
- Share success stories
- Partnerships

Resources

- New England Landscape Futures Explorer <u>newenglandlandscapes.org/</u>
- Municipal Vulnerability Preparedness Program and TNC's Community Resilience Building Guidebook

mass.gov/municipal-vulnerability-preparedness-mvp-program communityresiliencebuilding.com/

- Resilient Taunton Watershed Network <u>srpedd.org/rtwn</u>
- New edition of Losing Ground + Value of Nature fact sheets available December 2019 massaudubon.org/losingground
- Mapping and Prioritizing Parcels for Resilience (MAPPR)
 <u>massaudubon.org/mappr</u>
- Bylaw review tool www.massaudubon.org/lidcost





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