Mainstreaming Mitigation: Lessons Learned + Applied in Community Development Planning

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Quick Poll

How important do you feel it is to integrate hazard mitigation into general community planning and decision-making processes?

A. Very important

B. Somewhat important

C. Not important
Quick Poll

Which of the following tactics is most effective for achieving community-wide risk reduction?

A. Developing and maintaining a **stand-alone hazard mitigation plan**, separate from a local comprehensive or master plan

B. Developing and maintaining a stand-alone hazard mitigation plan, and **incorporating that plan** into local comprehensive or master plans by reference

C. More fully incorporating a hazard mitigation plan as a **distinct element** in a local comprehensive or master plan

D. Integrating hazard mitigation goals, objectives and actions **throughout all elements** of a local comprehensive or master plan
Mainstreaming Mitigation
Mainstreaming Mitigation

Effective integration of hazard mitigation occurs when your community’s planning framework leads to development patterns that do not increase risks from known hazards or leads to redevelopment that reduces risk from known hazards.
Mainstreaming Mitigation

Perceived barriers among land use planners (NOAA Study, 2010):

- Lack of public support or political will
- Limited budgets
- Competing priorities
- Limited actionable data
- Disconnect between emergency managers and planners
- Existing development and property rights
- Bias in favor of growth
Mainstreaming Mitigation

Common barriers and obstacles to integration (FEMA Study, 2013)

- Lack of awareness of hazard risks and mitigation solutions
- Mitigation not seen as a community priority
- Lack of political will to implement solutions
- Lack of incentives for integrated planning
- Lack of capacity or resources
- Insufficient framework for intergovernmental coordination
Amending the Comprehensive Plan for the National Capital

• 20-year framework that guides future growth and development

• Directly shapes the city’s physical form as it changes and develops/redevelops in the future

• Sets priorities for public services, infrastructure, and capital investments

• Used by District agencies, residents, employers, developers and other critical stakeholders
District of Columbia

12 Citywide Elements

- Land Use
- Economic Development
- Housing
- Environmental Protection
- Transportation
- Community Services & Facilities
- Urban Design
- Historic Preservation
- Infrastructure
- Parks, Recreation & Open Space
- Educational Facilities
- Arts & Culture
District of Columbia

Creation of a New Resilience Element

Resilience for the District of Columbia is the capacity of individuals, neighborhoods, institutions, businesses, and systems to thrive in an inclusive manner amidst challenging conditions and to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events.

Why now?
- District vulnerable to natural & manmade hazards, including flooding, extreme heat, drought, ice, and storms.
- Resilient city can maintain safety, health, and quality of life.
- Multiple sector government efforts to address climate risks and help DC become more resilient.
- Washington, DC is a part of 100 Resilient Cities global initiative.

What will we produce?
- New Business as Usual and associated metrics to integrate resilience into existing District of Key Elements.
District of Columbia

Resilience Advisory Group

Resilience:

The capacity to thrive amidst challenging conditions by preparing and planning to absorb, recover, and more successfully adapt to adverse events.
Amending the Comprehensive Plan for the National Capital

- Resilience introduced as key theme in *Framework Element*
- 81 resilience policies and actions integrated *throughout* existing Citywide Elements
- No stand-alone Resilience Element
Town of Fairhaven, MA

Hazard Mitigation Plan

- New plan adopted 2018
- Prepared to maximize CRS credit points
- Developed concurrently with Town Master Plan update
Town of Fairhaven, MA
Town of Fairhaven, MA

Legend
- Zone Designations
  - 100 Year Floodplain
  - 500 Year Floodplain

Worst-case Hurricane Surge Inundation Zones
- Category 1
- Category 2
- Category 3
- Category 4
- Town Boundary
Town of Fairhaven, MA

Sea Level Rise Planning Scenarios:

- 0.7 feet by 2030
- 1.2 feet by 2050
- 1.9 feet by 2070
- 3.1 feet by 2100

* Based on median value for high emissions scenarios provided in Massachusetts Climate Change Projections Report, 2017
Town of Fairhaven, MA

Master Plan

- **Resiliency** and **sustainability** identified as key themes
- Priorities issues include **coastal storms** and **flooding**
- Many areas facing increased exposure due to **sea level rise** and **coastal erosion**
Town of Fairhaven, MA

Plan Consistency + Cross Referencing

- Hazard risks are described and illustrated using the same data sources and planning assumptions
- Goals, Recommendations, and Actions are linked across both plans. For example:

<table>
<thead>
<tr>
<th>Update Stormwater Regulations</th>
<th>Update the Town’s stormwater regulations to emphasize low-impact development and green infrastructure, while considering projected precipitation/flooding conditions. This action is linked to the same recommendation included in the Town’s Master Plan under Sustainability Goal #3.</th>
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<tbody>
<tr>
<td>Incorporate Anticipated Future Conditions into Town Bylaws</td>
<td>Incorporate existing and projected future climate conditions into the Town’s zoning bylaw to promote (re)development patterns that minimize exposure to known hazards. This action is linked to the same recommendation included in the Town’s Master Plan under Sustainability Goal #3.</td>
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</tbody>
</table>
South Central Region, CT

**Goal #1:**
Reduce the impact of natural hazards by **integrating** natural hazard mitigation policies and practices into local community planning.
South Central Region, CT

Plan Overlap + Integration

Plan of Conservation and Development

Regional Framework for Coastal Resilience

Hazard Mitigation Plan

- Flood Warning & Evacuation
- Acquision
- Elevated Building
- Levee / Floodwall
- Shoreline Stabilization
- Living Shorelines - Vegetated Features
- Oyster & Coral Reefs
- Maritime Forests

Harbor Management Plan

- Future Sea Level
- Existing Sea Level
- Programmatic Measures
- Maritime Forest
- Tidal Marsh
- Estuary
- Barrier Island
- Beach & Dune Restoration
- Breakwaters Groins
Commonwealth of Massachusetts

resilient MA
Climate Change Clearinghouse for the Commonwealth

Municipal Vulnerability Preparedness
Our cities and towns are on the front lines of climate change. The new MVP program from the Executive Office of Energy and Environmental Affairs works with communities across the state to decrease risk, build resiliency, and identify strengths and opportunities through targeted planning and action.

Massachusetts State Hazard Mitigation and Climate Adaptation Plan
Emerging Strategies and Tools

Plan Integration for Resilience Scorecard

"The Resilience Scorecard was a great tool to allow us to evaluate our existing plans and policies against the backdrop of resilience. Perhaps most revealing were not inconsistencies in our plans, but that we had not fully incorporated all our policies and actions aimed at resilience into our most important policy document, our comprehensive plan."

- George Homewood, Planning Director
  City of Norfolk, VA
Emerging Strategies and Tools

PlanningForHazards.com
Emerging Strategies and Tools

Building Coastal Resilience Through Capital Improvements Planning

• 3-year project focused on reaching practitioners

• Objective is to *mainstream* a variety of techniques to help practitioners incorporate climate, flood, and hazard data into local and regional capital improvement plans.