



Connecticut State Historic Preservation Office Historic/Cultural Resources Coastal Resiliency Planning

Western Connecticut Council of Governments

June 23, 2016

Department of Economic and
Community Development

State Historic Preservation Office

Connecticut
still revolutionary



Agenda

- Introduction
- Background
- Historic and Cultural Resources Defined
- Resources and Resilience - Findings to-date
 - Overview of resources at risk
 - Overview of current plans and approaches (gap analysis)
- Best Practices and Procedures / Resilience Options
- Breakout Sessions
 - Review maps of resources and hazards
 - Review gap analysis – brainstorm solutions for historic resources
- Questions and Discussion

Program Sponsors

Department of Economic and
Community Development

State Historic Preservation Office



- Funded by the Disaster Relief Appropriations Act of 2013 (PL 113-2)
- Department of Interior – National Park Service
- Grant to SHPO
 - Funding limited to Sandy impacted Counties

Historic Preservation in CT

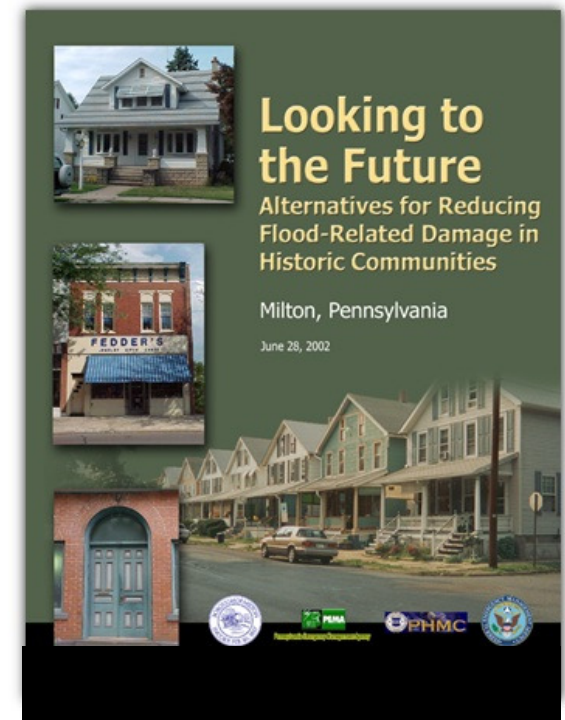
- CT State Historic Preservation Office (SHPO)
Programs that Intersect with Local Planning:
 - Historical Designations of Districts, Buildings, Structures, Sites and Objects to the National Register of Historic Places & State Register of Historic Places
 - Certified Local Government Program (CLG)
 - Historic Preservation Grant Programs
 - Federal & State Historic Preservation Tax Credit Programs
 - Archaeological Preserves
 - Cemetery Preservation
 - Local Historic Districts and Individual Historic Properties
 - Village Districts

Background - Project Overview

- Following meetings with the COGs, project teams will hold working sessions with the 28 coastal municipalities and providing recommendations
- Best Practices Guide will be provided to all municipalities in CT
- GIS data for the four southern counties with resource and hazard layers and point locations are available today in draft form and will be updated
- Project findings and recommendation will be incorporated into the next revision of the SHPP

An Emerging Area of Practice

- With few exceptions, natural hazard resiliency planning has not considered Historic Resources
- Addressing hazard related issues for Historic Resources has been reactive and institution specific
- Recognition of the need to incorporate historic resources into planning has increased since Sandy
- CT will be the *first* state to address these planning issues at the statewide level



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Historic Resources

What are Historic Properties?

Districts, Buildings, Structures, Sites, and Objects that are important on a local, state, or national level



Orange Street Historic District, New Haven



Elm Grove Cemetery, Mystic



Holmes House, Stonington



Areas of Importance

- Historic Properties are cultural resources that are important in:
 - American History
 - Architecture
 - Archaeology
 - Engineering, and
 - Culture.

Legislative Background

- Appreciation of the importance of preservation
 - Antiquities Act of 1906 under Teddy Roosevelt's Administration
 - Historic Sites Act of 1935 stated "It is a national policy to preserve for public use historic sites, buildings and objects of national significance."
 - National Historic Preservation Act of 1966 created the NRHP, NHLs and SHPOs, and delegated funding and authority to SHPOs through NPS
 - CT was a leader at the state level in heritage conservation, and established the CT Historical Commission in 1955



Benefits of Historic Preservation

- Historic Properties are Irreplaceable Resources that contribute to
 - Our cultural identity
 - Sense of Place
 - Community Cohesion
 - Quality of Life
 - Sustainability
 - Leveraging existing buildings as assets to create places where people want to live and work now and in the future
 - Economy
 - Rehabilitation for Commercial Use and Housing
 - Tourism
 - Jobs



Why Consider Historic Properties in Resiliency?

- A Proactive Approach at the local level will help:
 - Foster Appreciation for Heritage Resources
 - Assess Cultural Resource Data within the Context of Hazards Planning
 - Establish Community-Level Preservation Priorities
 - Identify Tools & Strategies for Community-Based Preservation
 - Develop Action Plans that consider Historic Resources in Community Planning
 - Position for pre and post-disaster action and funding



What is at stake?

Of more than **5,100** historic buildings within WestCOG, more than **790** are at risk for flooding!

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Resilience

Resilience Defined

- **Resilience** is “the ability of any system (infrastructure, government, business, and resources) to resist, absorb and recover from or successfully adapt to an adversity”
- **Community Resilience** is “the ability of a community to prepare for anticipated hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions.” - NIST
- **Coastal Resilience** is the ability to resist, absorb, recover from, or adapt to coastal hazards such as sea level rise, increased flooding, and more frequent storm surges.



Branford Coast During Irene
Image: Branford Eagle

Categories of Adaptation (NOAA, 2010)

1. **Impact Identification and Assessment**

Know the facts

2. **Awareness and Assistance**

Share the facts

3. **Growth and Development Management**

Prevent creation of new vulnerabilities

4. **Loss Reduction**

Decrease existing vulnerabilities

5. **Shoreline Management**

Protect natural, aesthetic, & economic benefits of beach & shore

6. **Coastal Ecosystem Management**

Protect natural, aesthetic, & economic benefits of coastal ecosystems

7. **Water Resource Management**

Decrease unique risks to drainage & water supply infrastructure



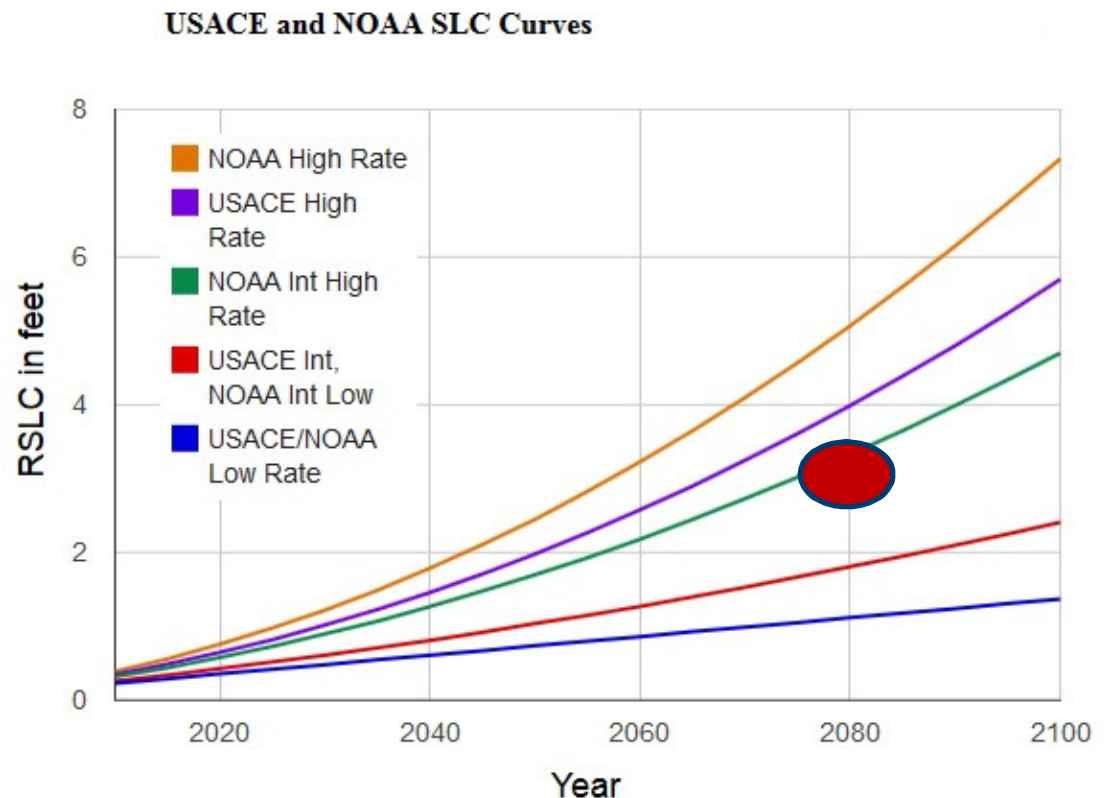
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What is at Risk?

Historic Resources and Resilience

Hazards Considered

- FEMA 1% Annual Chance Flood
- 2080 Scenario Sea Level Rise
- Wind
- Winter Storms



The risk assessment relies on sea level rise projections generated The National Oceanic and Atmospheric Administration Office of Coastal Management.

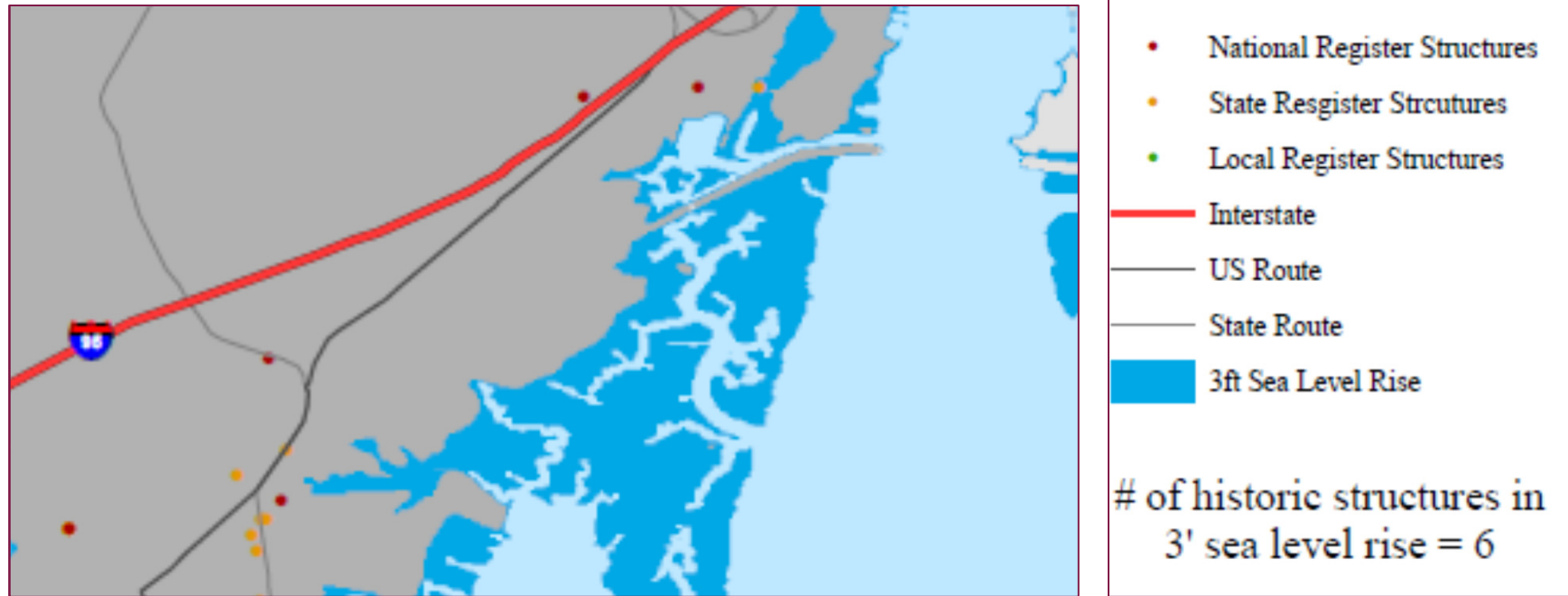
FEMA 1% Annual Chance Flood



Fairfield County – Total Number of Historic Structures in FEMA SFHA today = 900

* Maps and lists by community will be available later in the day

3-Ft. Sea Level Rise



Fairfield County – Total Number of Historic Structures in 3-Ft. SLR Inundation Area= 261

* Maps and lists by community will be available later in the day

SFHA and SLR Exposure

- Fairfield County = 8,258 total historic buildings
 - Special Flood Hazard Area (SFHA) = 900 (11%)
- WestCOG = 5,149 total historic buildings*
 - Special Flood Hazard Area (SFHA) = 550 (11%)*
- Fairfield County = 8,258 total historic buildings
 - Sea Level Rise (SLR) = 261 (3%)
- WestCOG = 5,149 total historic buildings*
 - Sea Level Rise (SLR)= 244 (5%)*

* Excludes New Milford and Bridgewater

Wind

- Vulnerability to wind damage is approximately equal geographically across the planning area
- Certain types of construction are more vulnerable
- Properties directly on the water are typically more vulnerable
- In general, all 8,200+ historic properties face some risk



Winter Storm

- Vulnerability to damage from winter storms also is approximately equal geographically across the planning area
- Certain types of construction are more vulnerable
- Snow load on roofs of older buildings is the greatest risk
- In general, all 8,200+ properties face some risk
- Some local plans already discuss snow load

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Current Planning Around Historic Resources

What we reviewed

- Hazard Mitigation Plans
- Plans of Cons. and Dev.
- Coastal Resilience Plans
- NFIP Ordinances / Regulations
- Zoning Regulations
- Historic Preservation Ordinances
- Emergency Operations Plans



Findings – Hazard Mitigation Plans

- Seventeen of 23 plans are covered by regional mitigation plans. Eight are stand alone.
- Do plans include historical resources in the Hazard ID and Risk Assessment
 - 13 – No
 - 10 – Yes, anecdotally
- Do plans include historical resources in the Capability Assessment of Background/Setting
 - 12 – No
 - 11 – yes

Findings – Hazard Mitigation Plans

- Specific mitigation strategies and actions including historical resources
 - 22 – No
 - 1 – Yes (Westport)
- Six of the 23 plans had strategies that inadvertently may involve historic properties

Findings – Hazard Mitigation Plans

- Other common statements, themes and strategies:
 - Stand by power generators
 - Many buildings more than 50 years old are not built to current code - concern for roofs and window damage from wind is noted
 - Seismic concerns for older buildings

Findings – Plans of Conservation and Development

- POCDs are Required to Address Historic Resources
 - Sec. 8-20. Preparation, amendment, or adoption of plan of conservation and development: [growth principles include] (e)(1)(F)(iv) “conservation and restoration of the natural environment, ***cultural and historical resources*** and existing farmlands;”
- Does not require that the municipal POCD address historic resources in hazard areas

Findings – Plans of Conservation and Development

- Only 3 communities do not have a stand alone historic resources chapter/element
- Most municipal POCDs address preservation of historic resources in general or in response to development pressures
- None of the plans specifically include preservation from natural hazards

Recommendations

- Amend zoning and subdivision regulations to allow the Commissions to require archaeological and historic surveys prior to approval.
- Include historic assets and historic districts as critical features that merit protection and/or planning when considering Disaster Mitigation Plans, especially with regards to flooding, storm surge, sea level rise, and coastal erosion.
- Amend regulations to support redevelopment and creative reuse of historic properties while maintaining historic characteristics.

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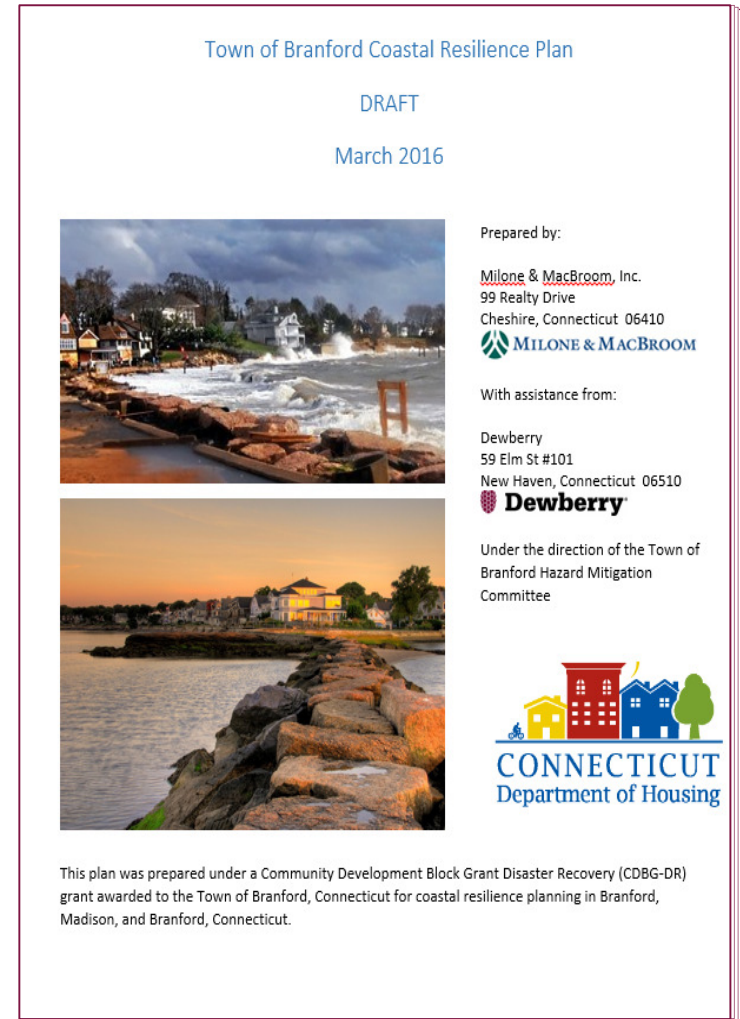


Findings – Plans of Conservation and Development

- Twenty two plans have specific hazard or flood chapters / elements
 - One of those include mention of historic resources (Fairfield)
- Seven plans reference historic preservation ordinances

Findings – Coastal Resiliency Plans

- Stratford has a recently completed plan (2016)
 - Some neighborhood scale plans may impact historic resources
- Fairfield has a post-Sandy Flood Mitigation Plan
 - One pump station project notes protection of historic resources



Findings – Zoning Regulations and NFIP

- All communities participate in the NFIP and have either ordinances or zoning regulations
 - The majority use the FEMA Substantial Damage definition and variance criteria that allow for exceptions for historic structures
 - Five have variations on FEMA language
- Majority of zoning regulations address historic preservation
 - Some very lightly, some substantively
- One of the zoning regulations address historic buildings within the context of hazards (allows for relocation – Westport)
- 30% of communities have historic building design standards
- 1 community has zoning that is silent on historic resources

Findings – Zoning Regulations and NFIP

- Common themes
 - Town Center Historic Districts
 - Exceptions for setbacks
 - Excavation rules
 - Wireless Communications towers
 - Signage
 - Conservation
- Historic resources are typically addressed in generalities
- Different resource classes are not usually called out
- Nexus between resources and hazard risks not included



Findings – Historic Preservation Ordinances

- Sixteen municipalities have one
- None specifically address natural hazards

Findings – Emergency Operations Plans

- Designed to set incident command, communications protocols, and specific procedures for the different departments collaborating to address disasters
- In EOPs, recovery is focused on life, health, safety, and financial accounting
- EOPs are maintained by the Emergency Management Director
- CT generally does not have Recovery Plans at the local level
- EOPs currently are not designed to address historical resources or to avoid inadvertent adverse impacts

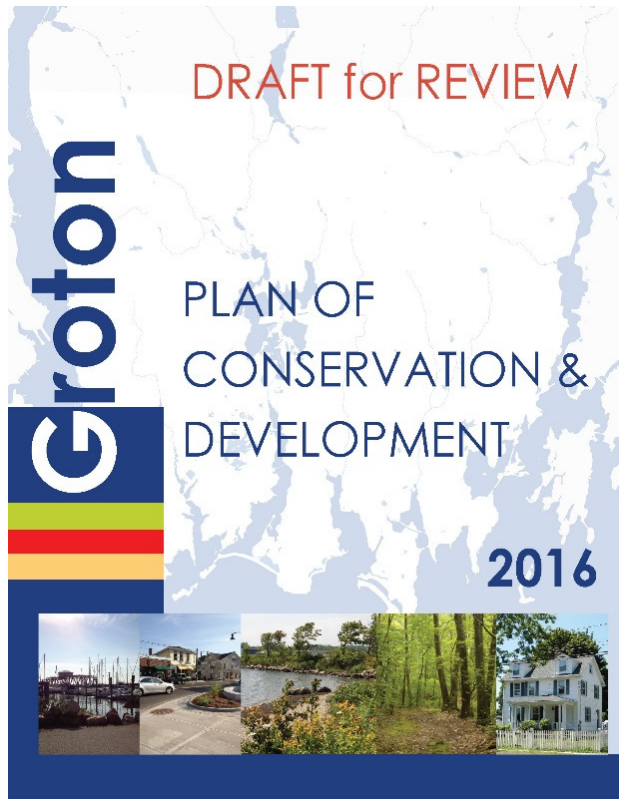


Incorporating Historic Resource Resiliency into Planning

Best Practices – POCDs

- Historic resources chapter or element should address hazards; and,
- Hazards chapter or element should address historic resources.
- Use hazard data and historic resources point data to describe and quantify what is at risk
- Implementation matrix should include strategies that include historic resources in the context of hazards

Best Practices - POCDs



Recommendations

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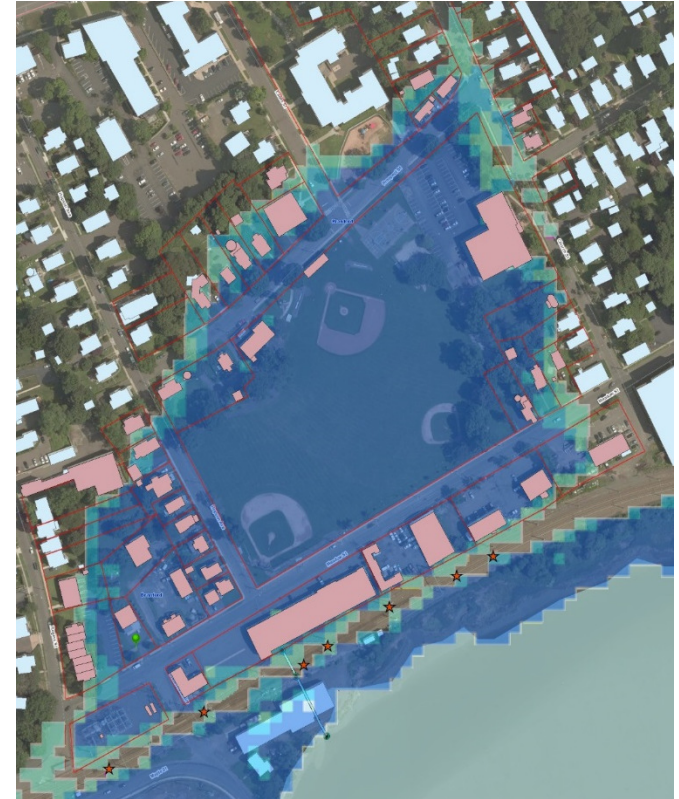
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Best Practices – HMPs

- Capability Assessment
 - Describe the community's understanding of its historical resources
 - Does the municipality designate staff or a commission to plan for these resources?
 - Does that staff or commission interact with those that address natural hazards?
- Critical Facilities
 - Are any critical facilities also historic structures?
 - Are any critical facilities located in historic districts?

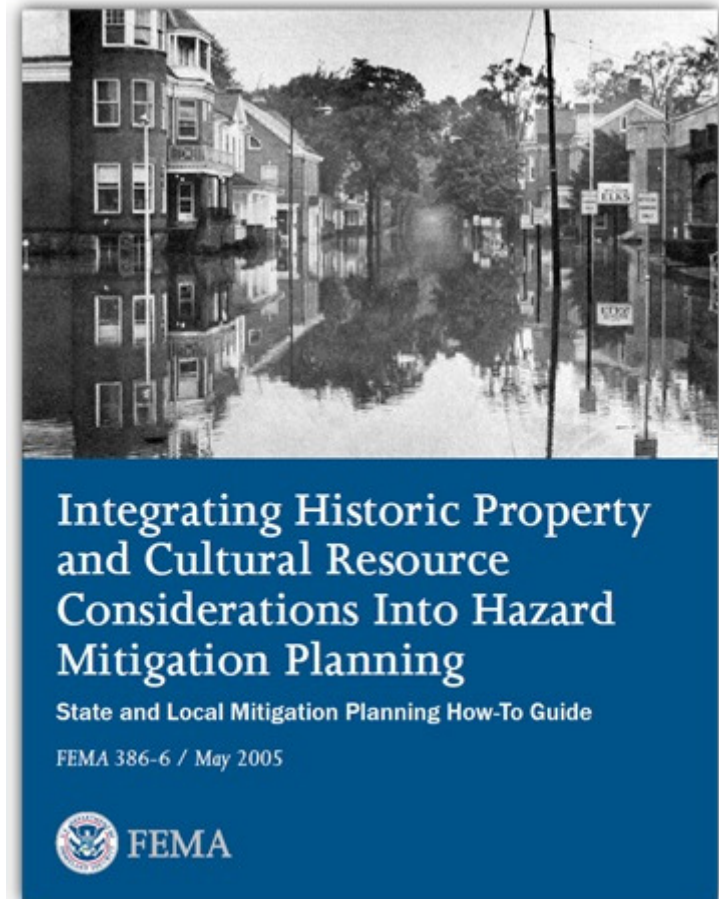
Best Practices – HMPs

- Hazard Assessment
 - Show or describe locations of historic resources in flood zones, sea level rise risk areas, erosion risk areas, wildfire risk areas, etc.
 - Are any specific resources known to be at risk?
 - What Attributes are available to quantify risk?
 - Are historic resources more at risk than other resources? For example, would heavy snow be more or less of a concern?



Best Practices – HMPs

- Loss Estimates
 - Have any historic resources been damaged or suffered losses from hazards?
 - Do the loss estimates for a specific hazard include any known historic resources?



Best Practices – HMPs

- Hazard Mitigation Strategies
 - Add one or more strategies addressing historic resources (include buildings, districts, archaeological sites, the town green, or whatever is appropriate for the community)
- Hazard Mitigation Actions
 - Add one or more *specific* actions linked directly to risk
 - FEMA Region 1 has buckled down on how actions can be worded (no more “Consider...” and no more ongoing actions)

Best Practices – HMPs

- Possible examples:
 - Improve drainage to reduce the frequency of flooding in the lower levels of the old town hall
 - Relocate the historic structure located on Main Street
 - Stabilize the streambank adjacent to the remains of an old settlement on River Street
 - Devise a snow removal procedure for the historic library building to reduce the risk of collapse
 - Develop guidelines for building elevations within historic districts
 - Develop EM protocols to ensure response does not harm historic resources

Best Practices – Coastal Resiliency Plans

- Incorporate improved historic resources data into risk and vulnerability assessment
- Use neighborhood level concept planning for historic districts
- Ensure emergency access to historic properties





Best Practices – Historic Preservation Ordinances

- Use new GIS based data to perform analysis of at risk resources
- Utilize and update database of historic resources and rank preservation priorities
- Develop resiliency standards for local historic districts to complement existing standards
- Incorporate other classes of resources (i.e., archaeological, historic landscapes) in revisions to historic district ordinances

Best Practices – Emergency Operations Plans

- Historic resources could be addressed in an “annex,” similar to how all sectors are addressed
- Consider adding a recovery/damage assessment annex if one doesn’t exist
- Point data can be used by responders to understand resources
- The annex may describe how a specific department or individual is responsible for checking on the status of historic resources during and after a disaster

Best Practices - Disaster Recovery

- Resiliency Planning for Historic Properties Pre-Positions communities for post-disaster funding for State and Federal Programs and Future Special Congressional Appropriations.
 - Applications for Such Funding requires Accurate Data on the Location, Type, and Significance of Historic Properties

Information for your Communities

- Countywide SFHA and SLR shape files
- Countywide draft historic building points
- Comprehensive list by community of buildings, addresses and x/y coordinates
- PDF maps of communities where there are historical properties in either the SFHA or predicted SLR inundation area
- Copy of a gap analysis of current plans

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10 Minute Break

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Break Out Groups

Questions and Discussion



Department of Economic and
Community Development

State Historic Preservation Office

Connecticut
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R. CHRISTOPHER
GOODWIN
& ASSOCIATES, INC.

 **MILONE & MACBROOM**