RESILIENT CONNECTICUT
RESILIENCE WHITE PAPER SERIES

Historic Resource Surveys in Risk Zones: Climate Action

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January 2023

Partial funding for this project is provided by the U.S. Department of Housing and Urban Development through the Community Development Block Grant National Disaster Recovery Program, as administered by the Connecticut Department of Housing

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Authors and Affiliations:

Suggested citation: CITATION WITH DOI

I. Introduction

Increasingly, municipalities are utilizing existing planning processes such as natural hazard mitigation plans (NHMPs) and other comprehensive plans to incorporate climate change mitigation and adaptation for preserving important historic and cultural resources. Connecticut municipalities are no exception.[1] The Capitol Region Council of Government (CRCOG), the Western Connecticut Council of Government (WestCOG), and Naugatuck Valley Council of Government (NVCOG) completed their plans in 2019, 2020 and 2021, respectively. Natural Hazard Mitigation Plans included climate-related hazard mitigation actions related to historic sites.[2] One such action included for the 38 towns of the CRCOG, for the 19 towns of the NVCOG, and for the WestCOG municipalities was:

> "Coordinate with CT SHPO [State Historic Preservation Office] to conduct historic resource surveys, focusing on areas within natural hazard risk zones (flood zones, wildfire hazard zones, steep slopes) to identify historic resources at risk and support the preparation of resiliency plans across the state." [3]

Facing increased risks due to climate change, historical and cultural sites require greater protection to ensure community resiliency. Historic sites "are more than just physical sites; they testify to shared history. They connect us to our past, often in deeply spiritual ways. They speak to human identity and create a sense of connection across generations. If we fail to act now, tangible cultural heritage, feats of architecture and engineering, and icons of our shared history connection [will be lost]."[4]

These historical sites, whether tangible or intangible, contribute to a unique local heritage and cultural identity that create a "sense of place" within a landscape. Preservation of historic places is stated by the Advisory Council on Historic Preservation and the National Trust for Historic Preservation to contribute to a "strong sense of community identity, positively affects property values, supports place-based economic development, and is environmentally sensitive in its use of existing built resources."[5]

Historic sites are often perceived as beacons of resilience for communities, acting as the inspiration to rebuild following disaster, and often act as a point where many members of a community can come together, which builds community resilience.[6] Community resilience is defined as "the capability to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimum damage to social well-being, the economy, and the environment."[7] Historic preservation and resilience go hand in hand, sharing the holistic wellbeing of the community from the environmental to the social and economic aspects. For example, in 2018, New London Landmarks contacted SHPO and the Connecticut Trust for Historic Preservation after learning that two buildings, 116 and 130 Bank Street were going to be demolished. Both of these sites were from the nineteenth-century era of commercial buildings. Though the property owner had been contacted to explore alternatives to demolishing these sites, preservation partners were unsuccessful.

Following a public demonstration, the surrounding community formed a petition of more than 1500 individuals against demolishing the structures.[8] So, the Historic Preservation Council voted to "refer the matter to the State Attorney General's Office pursuant to the Connecticut

Environmental Protection Act."[9] Assistant Attorney General Alan Ponanski demonstrated under protocol that the structures are listed and important additives to the Downtown New London Historic District, that "the proposed actions are unreasonable, and that there are prudent and feasible alternatives to demolition."[10]

After testimony from experts, on March 29, 2018, the judge ruled in favor of the State.[11] Today, these buildings contribute to the historical cultural heritage of New London and indeed, Bank Street - South Water Street in New London are the site of a CIRCA-identified resiliency project. This project involved staff from UConn CIRCA and the Department of Plant Science and Landscape Architecture who worked with the city's Mayor's Office and the Business Owners Association to develop a science-based design to mitigate negative impacts of sea level rise while spurring economic growth along South Water Street. More about the project can be found here.

Evaluation becomes critical so that historical and cultural sites are protected from likely climate and related natural hazard vulnerabilities. Safeguarding the historic character of Connecticut's communities can address resilience and preservation goals. Preservation supports a town's identity and its "brand."[12] Resilience supports the preservation of that identity through proactive planning to prepare, withstand, recover, and adapt from potentially catastrophic events. While many communities recognize the importance of historic properties through local ordinances, local historic districts, and preservation guidelines, formally recognizing the nexus between resilience and preservation is relatively new and worthy of examination.

Historic properties are among the community assets that should be considered and integrated into resiliency planning.[13] Another example comes from Hartford, where the city has adopted a form-based zoning code that maintains the integrity of Hartford's historic neighborhoods and simultaneously protects "the environment with renewable energy allowances, waterway buffers, and density bonuses for integrating green roofs, combined heat and power, and fuel cells."[14] Inventorying historical and cultural sites creates means to identify and maximize protection of this limited and important resource. The following sections of this document will detail the current policy influencing historic resource resiliency, how to inventory historic resources in areas of risk and recommendations for undertaking this process, and lastly, how historic resource surveys were conducted in a case study of New Haven County and Fairfield County following Hurricane Sandy.

II. Historic Resource Resiliency Policy

Federal-Level Legislation

At the federal level, the U.S. Department of the Interior is central in historic and cultural preservation.[15] Through bills such as the National Historic Preservation Act, the National Register of Historic Places and the National Historic Landmarks Programs, and the Interior's Standards lay the initial standards for treatment and preservation of historic and cultural resources at the state and local levels.

Historic Property

"Historic property means any prehistoric or historic district, site, building, structure, or object included on, or eligible for inclusion on, the National Register, including artifacts, records, and material remains relating to the district, site, building, structure, or object." [54 U.S.C. § 300308]

Historic Resources

"Historical resource means any resource possessing historical, cultural, archaeological or paleontological significance, including sites, contextual information, structures, districts, and objects significantly associated with or representative of earlier people, cultures, maritime heritage, and human activities and events. Historical resources include "submerged cultural resources", and include "historical properties," as defined in the National Historic Preservation Act, as amended, and its implementing regulations, as amended." [15 CFR § 922.3]

Cultural Landscapes

Within 15 CFR § 922.3 and "Cultural landscape - a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values." There are four general types of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes. (National Park Service, n.d.)

The National Historic Preservation Act of 1966 (NHPA) initiated standards, funding, and general guidance for historic sites from the state to local level. The NHPA stands to highlight the importance of protecting heritage sites across the nation from "rampant federal development."[16] Within the Act are policies preserving the nation's heritage, foundations for federal-state and federal-tribal partnerships, for creating Certified Local Governments within the States, and establishing the National Register of Historic Places and National Historic Landmarks Programs within the National Park Service among other programs.[17]

The National and State Register of Historic Properties "affords consideration of the effects of state and federal undertakings under the Connecticut Environmental Policy Act and/or Section 106 of the National Historic Preservation Act of 1966 (NHPA)."[18] SHPO mandated a review agency in the former, and SHPO required participants in the latter–local governments were invited to participate as consulting parties on effects of federal undertaking on historic properties under the Section 106 process. Section 106 expanded opportunities between the SHPO and municipal planners to collaborate on local preservation objectives. Section 106 asked for "Municipal P&Z officers to keep a stack of A Citizen's Guide to Section 106 on hand. Produced by the Advisory Council on Historic Preservation, the brochure explains the Section 106 process for non professionals [for brochure click here]."[19]

State- and Local-Level Legislation

State governments have several means to protect historically and culturally important resources. They can create plans of action for historic resources through the State Hazard Mitigation Plan (HMP) and/or State Historic Preservation Plan (SHPP). Through these plans, historic resources can be made into priorities with proper funding, resources, and integrated policy across plans to support their preservation.

The Connecticut State Historic Preservation Office (SHPO) serves within the State's Department of Economic and Community Development to assist "town planners, historic district commissions, and local preservation advocates in developing tools to help preserve the state's character-defining historic properties."[20] The tasks of SHPO includes organizing main cultural resource management through administration of "such state and federal programs as the State and national register of Historic Places, historic tax credits, and grants funded by the National Park Service and the state's Community Investment Act fund."[21]

In the next five years, SHPO plans to "pursue this vision by working to enrich and expand partnerships, enhance public education on preservation, diversify audiences and resources, and develop a resiliency strategy for the state's historic resources."[22] SHPO can also aid in economic development in the state through the State Historic Rehabilitation Tax Credit Program to create houses that are overwhelmingly affordable. SHPO aids in disaster relief; in providing grant support to historic property owners who had their historical sites damaged during natural disasters as well. Through the Statewide Historic Preservation Plan Shared Stewardship: 2018-2023, created by SHPO, one of the prime goals was to "Integrate historic properties and cultural heritage values in Hazard Resiliency Planning on the state and local levels."[23] SHPO also aids in the discovery and inventory of "previously uncovered stories about Connecticut's past," recognition of the historic places that define the state's culture, protection of historical sites, and continuing the evaluation of over 3000 historical project sites across the state. These are after all, finite resources, and history "brings relevance and understanding to the present."[24] We can learn about who we are now by knowing where we are from.

State planning plays a critical role in how historic resources are surveyed and placed in inventory. The most fundamental means of maximizing protection of historic sites is to catalog historic resources on registries through statutes, local ordinances, and agency regulations, as well as through voluntary lay processes and criteria for listing a site in an official register. Preservationists deliberate on how law can protect resources before and following disaster, including the debris of historically important buildings, as well as the artifacts of tribes and archeological sites affected. State law dictates ownership of archaeological resources on private land, and debris including tribal artifacts is protected under the Native American Graves Protection and Repatriation Act of 1990, which asserts that such artifacts are to be identified and through repatriation, returned to the relevant tribe.[25]

In Connecticut, both the state historic preservation plans (SHPP) and state hazard mitigation plans (SHMP) prioritize cultural and historic resources. These two plans, if developed in isolation, are less effective. If coordinated, these two plans together can complement efforts to protect historic resources.

Goal 4 of Connecticut's SHPP is to "Develop a Resiliency Strategy for Historic Resources" and aims to preserve historic resources from natural hazards, including ones that are intensifying climate change. Further and more specific goals related to historic preservation can be found in municipal individual HMPs or their annexes within their regional Council of Government (COG). Currently, there is a great emphasis in the state on building resiliency.

Further, the State's *Resilient Historic Resources*: *Best Practices for Planners* outlined four steps to historic resource resiliency:

1. **Prepare**
    - Assessment - locate historic resources and their vulnerabilities,
    - Plan - prioritize, budget and create policy to mitigate risk, integrate planning documents,
    - Educate stakeholders.
2. **Withstand**
    - Work during a disaster including implementation and execution of plans created during prepare phase.
3. **Recovery Step**
    - After the disaster, execute disaster recovery protocols,
    - Enforce design guidelines and requirements during rebuilding,
    - Good communication and collaboration between stakeholders.
4. **Adapt**
    - Following disaster, revise and update planning documents.[26]

In the state Natural Hazard Mitigation Plan 2019-2024, two recommended hazard mitigation activities are recommended. Goal 59 recommends that the state, in response to the flooding and climate change hazards, "conduct new or updated surveys of historic resources to better understand their vulnerability to natural hazards."[27] Activity 59 recommends an "Increase support of the State-level Cultural and Natural Resources Initiative to increase resiliency of cultural and natural resources from disasters. Expand SHPO resiliency-focused technical assistance project completed in 2018 to northern four counties."[28] A case study of the activities undertaken to assess historical sites in four counties during 2016-17 can be found below.

Currently, as CT planning is largely confined to pre-disaster preparations, there is yet more effort that will need to be made, though CT has gone farther than many other states in taking federal guidance and using state specific knowledge to prepare historic properties at risk. Further reading and guidance on surveying and protecting historic resources is provided by state guides including "Resilient Historic Resources: Best Practices for Planners" and the "Historic Resource Resiliency Planning in CT."

III. How to Inventory Historic Resources in Areas of Risk

To understand what is possibly at risk to hazards and climate change, municipalities should conduct an inventory of historic and cultural resources. This product, usually a written report with maps and a database of each location, can then be used across pertinent planning documents. This inventory process is a high-level reconnaissance survey that likely will not include long historical narratives and site descriptions. In fact, some sites may need to be generalized to an area especially places at risk of looting or desecration in the case of archeological excavations or traditional ecological knowledge.

While many historic resources may already be listed in the Connecticut State Register of Historic Resources, it may not include cultural landscapes, locally important sites or places that contribute

to local character, or areas of tribal importance (that may be affected by municipal actions). It's important to supplement use of statewide or federal databases with local outreach to identify places of importance such as notable trees, religious practices dependent on a location, and community traditions.

Connecticut holds a "State Register of Historic Places: that lists criteria for creating historic and cultural sites based on factors related to the "integrity of location, design, setting, materials, workmanship, association" and:

1. "that are associated with events that have made a significant contribution to our history and the lives of persons significant in our past; or

2. that embody the distinctive characteristics of a type, period or method of construction; or that represent the work of a master; or that possess high artistic values; or that represent a significant and distinguishable entity whose components may lack individual distinction; or

3. that have yielded, or may be likely to yield, information important in prehistory or history."[29]

Having a property listed on the National Register creates eligibility for recovery grant assistance for historic properties through the SHPO and NPS after previous hazard events.

Following Hurricane Sandy, the DECD and SHPO published the following guidelines for preparing historic preservation and hazard mitigation goals before a disaster that are as follows:

- Identify historic resources at risk and understand the qualities that make them significant.
- Determine vulnerabilities of those resources.
- Understand the hazards they face.
- Incorporate historic resource information into planning documents.
- Integrate historic preservation and hazard mitigation goals in planning documents.[30]

Further, we offer the following suggestions on how to follow those guidelines below.

Basic Steps to Conduct the Survey and Identify Risk:

1. ***Identify historic resources at risk and understand the qualities that make them significant***
    i) Assign the Survey to a Local Committee. This can be an existing historic commission, the planning commission, or a mix of representatives from different groups. Reach out to the State Historic Preservation Office.
    ii) Prioritize the types of historic and cultural resources that your community would like to focus on.

iii) You may find ideas for the places of importance by reviewing the local Plan of Conservation & Development. Look for practices or places in that document that contribute to the local community character. Review the State Register of Historic Places.

iv) Ask the community and other stakeholders. Use a survey, mapping application, or town-wide workshop to collect ideas.

2. ***Using volunteers or a consultant, identify the resources and collect preliminary information.***

   i. Going by each category you found in the previous step might make it easier to search i.e. sites on the state register, religious sites, cultural landscapes, etc. Consider holding another public event for folks to brainstorm ideas.

   ii. Collect information that can help you in planning i.e. name, address, parcel id, and short description of why it's important. Photographs may also be helpful.

   iii. Put the locations on a map.

3. ***Determine vulnerabilities of those resources & understand the hazards they face.***

Natural hazards can create areas of risk that threaten to damage or hurt the environment, people, economy, and property residing in those zones. Natural Hazard Risk Zones include areas subject to flooding, erosion, blizzards, tropical storms, extreme heat, drought, wildfires, and other potential natural hazards. With climate change, many hazards are anticipated or are already of greater threat to communities in Connecticut and across the rest of the country. Climate change not only creates more frequent severe natural events, but also increases the intensity of these occurrences. Already annually across the United States, natural hazards threaten lives and livelihoods, resulting in billions of dollars of damage.[31] Historical sites are particularly vulnerable to severe and frequent weather events given that they are older structures that have sustained weathering already. Historical Site surveys can determine the risk factors surrounding a resource or site of importance from the past so action can be taken to improve the area's resiliency.

The state of Connecticut is susceptible to natural hazards, notable storms including hurricanes throughout our history (1936, 1938, and 1955) as well as the more recent "Hurricane Irene (2011) and Superstorm Sandy (2012), and Blizzard of 1978 to Winter Storm Nemo in 2013."[32] Historic and cultural resources were identified through working with the State's COGs and municipalities that are "specifically at risk now, could be at risk in the future, and could help generate consensus for resiliency actions."[33] The CT HMP identified and quantified risks for hazards that our state has been historically exposed to, including hurricane winds, flooding, severe winter weather, wildfires, tornadoes, and earthquakes. Many of these are anticipated to increase in frequency and severity with climate change. Vulnerability to the changing climate varies depending on the different resources available to address environmental hazards, which range from "social, economic, historical, and political factors, all of which operate at multiple scales."[34] Understanding an area's vulnerability is necessary to effectively create resilience in a community. Heat, wind and flooding information for CT can be found at the NOAA National Centers for Environmental Information: Connecticut. However, identifying the issues through surveys allows communities to get to the root of the issues their historical sites and resources face. Understanding the specific causes and

effects of these natural hazards on historic sites, resources and their surrounding communities enables an area to develop greater resiliency. Data collection and integration of data is critical to ensure protection of historic sites. However, it must be noted that it is unlikely that historic resources can be flood proofed, elevated, nor relocated due to the potential loss of their historical worth. It is then through a good knowledge of site-specific options that sites can be protected prior to natural disasters that would possibly damage these, and make recovery easier.[35]

CIRCA is currently developing a statewide climate change vulnerability index (CCVI) that will illustrate the flood impacts across the state, which will aid in identifying potential risks to communities and their historic resources. Below are available CIRCA resources for understanding a few hazards buildings face:

CIRCA: Sea Level Rise and Storm Surge Viewer

CIRCA: Critical Infrastructure

CREST Map Viewer on CT ECO

Modeling Site Suitability of Living Shorelines in Connecticut on ArcGIS

4. Integrate these Resources into Planning

Towns are recommended to consider revising "their zoning and subdivision regulations to allow municipalities to require archaeological and historic surveys prior to approvals for work."[36] Analysis should prioritize preservation of those features that are identified as significant during the survey and registered as data for the properties.

An important consideration when preparing to assess your community is what persons or departments will be designated for the job of assessing historic resources before, during, and after a disaster.[37]

- Preservation of historical or agricultural heritage or preservation of a natural landscape feature – there are specific open space sites in the Town with historical or other cultural importance that merit their retention as open space. While the most important function of agricultural land is food production, it also contributes greatly to the visual qualities of the community.[38]
- Coordinate with CT SHPO to conduct outreach to owners of historic properties to educate them on methods of retrofitting historic properties to be more hazard-resilient while maintaining historic character.[39]
- Towns should work to attract a younger demographic by marketing Sprague and Baltic Village as a socio-economic, diverse community that is historically and architecturally significant, affordable, walkable, eco-friendly, safe, and rich in natural resources. The town should also promote its small school system and community atmosphere where "everybody knows your name"[40]

- Support the listing of historic sites and districts on the National Register of Historic Places and the State Register of Historic Places[41]
- Use recently published GIS inventory for historic and cultural risk assessment and protection
- "Encourage cooperation and communication between existing volunteer groups, historic and cultural institutions."[42]

Following survey and assessment of the natural hazards that threaten your municipality's historic and cultural sites of importance, taking steps to ensure the preservation of these sites is a must. The following steps are a few recommendations to start this process. Taking appropriate climate action by incorporating historic preservation and resiliency into policy is the next step, followed by implementing the necessary changes in real time. Additionally, beyond this white paper, creating plans for protecting cultural sites and the surrounding community as well during and following disasters will vastly increase the resiliency of your town regardless of the circumstances you may find yourselves in.

IV. Conclusion

Historical and cultural resources are critical for community preservation and resiliency. They create a sense of place and often act as a point of rally following calamity. With climate change, the security and stability of our surroundings will likely lessen due to natural hazards. Protecting sites by affording them greater resiliency extends greater resiliency in turn to the surrounding community. One of the first steps to protecting and preserving historic sites is to assess and inventory historic sites to understand the impact climate change may have on the sites. A number of recommendations are available to begin this process. In Connecticut, the state assessment in Fairfield County and New Haven County have GIS data, including vulnerability assessment. Surveying and inventorying historic sites is a significant step for the preservation and resiliency not just of our past, but also for the strength of our current and future communities. The DECD notes further that though surveys may have occurred in your area, that does not ensure that all historic resources were documented in previous work. Maintaining a complete and up-to-date inventory informs resilience planning and thus highly recommended.

Takeaways:

- "Sense of Place" is important for community identity. Historic places of importance often are points of rally–foundations of community resiliency, following natural disaster.
- Survey and Assessing risks to historic resources is the first step to effectively protecting these important sites.
- Consider and/or follow the Basic Steps for Conducting a Historic Survey.
- Define what qualities make historic and cultural resource important in your community.
- Integrate goals for historical site preservation into active planning documents.

Additionally, from the "Resilient Historic Resources: Best Practices for Planner - Guidance for Connecticut municipalities in an era of climate change:"

- Incorporate Historic preservation into resiliency planning policy:
    - Including specific strategies, actionable items, and possible funding sources,
    - Creation of Strategy Tables with assigned agency responsible for task as well as possible funding sources
- Conduct Public Outreach Locally.
- Stay aware of developments in climate science and projections.
- Develop during and after protocols and policies regarding disaster.
- Get Certified: Strengthen municipal preservation efforts by becoming part of Certified Local Government program.

V. Case Study: Adaptation and the State Assessment of Historical Site Vulnerabilitys in Fairfield and New Haven Counties

Following Hurricane Sandy in 2012, SHPO was awarded disaster relief and recovery funds from the U.S. Department of Interior through the Emergency Supplemental Historic Preservation Fund from "the National Park Service (authorized by the Public Law 113-2, the Disaster Relief Appropriations Act)."[43] Connecticut's Historic Preservation Office launched a project in 2016[44] to actively include historic properties in local plans and protocols for hazard and resiliency planning in areas affected by the hurricane.[45] These sites could be affected by future natural disasters as well, particularly with the expectedly more intense storms of the future.

The project team was composed of R. Christopher Goodwin & Associates, Dewberry, and Milone & MacBroom. These parties undertook an effort to collect data and map, conduct outreach to planning officials within a four-county target area of Fairfield, New Haven, Middlesex, and New London, audit existing plans, and develop a best practices guide for "integrating historic preservation into state-level resiliency planning and initiatives; and of addressing historic resource resiliency in the Connecticut State Historic Preservation Plan (2018)."[46] This was done drawing upon Federal Emergency Management Agency (FEMA) hazard mitigation planning recommendations, they adopted these principles and tailored them to the area of interest:

- "Assess risks by mapping identified resources and overlaying hazard data (FEMA flood zones, hurricane surge areas, etc.) relative to existing and future high-risk areas;
- Develop a mitigation plan focusing on the four coastal Connecticut counties most affected by recent Storms Irene and Sandy (Fairfield, New Haven, Middlesex, and New London);
- Undertake planning outreach in communities in the four counties to integrate historic resource consideration into other planning, hazard mitigation, and emergency management planning documents;
- Organize resources by building strategic partnerships with local municipalities and emergency management personnel; and,
- Provide a framework to implement the plan, monitor progress, and update data as needed."[47]

From these guidelines, they came up with a general plan for data collection, charettes, municipal meetings, creating and distributing best practices guides tailored to every town, and updated the state historic preservation plan.

Data Collection

Historical site vulnerabilities were identified in Fairfield & New Haven counties based on the increased use of geographic information systems (GIS) for finding overlap between historic places and natural hazards. Indeed, property types can be overlaid through aerial photography to provide better orientation for public and for town officials about location of historic resources, particularly as they have relations to other landmarks, streets, as well as environmental areas such as rivers, streams, and inland/tidal wetlands. This data included all known and recorded historic properties listed on State and national Registers of Historic Places, as well as National Historic Landmarks in CT's counties.[48] It can be accessed on the CT DEEP GIS website.

When new and updated information regarding the terrain, whether properties or a change to the land, these can be added to the GIS layers. Attributes of a historic property may also be expanded to include resilience data, such as character-defining features, level of recognition, and hazard vulnerabilities.[49] Using GIS will aid in identifying means to protect historic sites and resources further in coordination with the municipalities they are collaborating with.[50] Users can pinpoint individual properties, neighborhoods, or areas of community to graphically depict where historic properties and higher-risk areas intersect.[51] GIS mapping allows communities to quickly identify possible gaps in planning, policy and regulation to protect their important heritage sites. Survey of these coastal counties can provide a useful methodology and many insights that can be applicable to communities across all of Connecticut. The GIS data revealed not just areas of special concern where natural hazards may occur, but the geographic conditions and land use as well, which can only help in planning.

Charrettes

Charrettes are defined as meetings between stakeholders within a project that attempt to resolve conflicts and create solutions. These meetings focused on identifying historical resources, the risks these face, the benefits to preserving these sites, the challenges specific to local and regional challenges, and the measures needed to integrate historic resources into active community plans and real-time practices. Questions provided by the historical site resiliency planning team and discussed during these meetings with community representatives included:

- Where do municipal planning documents and codes address historic resources? Hazards?
- What are the barriers to incorporating hazard resiliency of historic resources into municipal planning documents and codes?
- What are specific actions, strategies, codes, or ordinances that could be added to municipal documents and codes to improve the resiliency of historic resources to natural hazards?
- What municipal personnel need to be engaged to make changes?[52]

Town Meetings

Historic resources resiliency planning meetings were held in June 2016 in the five coastal COGs of Connecticut. Individual meetings were held next with shoreline communities during the winter

of 2016-2017 that resulted in personalized reports for each of these communities in late 2017. Twenty-eight town meets were held along the coast following the charrettes to review results from the gap analyses and to discuss ways to integrate historic resources into community plans. The team examined "conservation and development plans, zoning regulations and ordinances, hazard mitigation plans, historic preservation ordinances, coastal resiliency plans, and emergency operations plans from the 91 communities in the four coastal counties."[53] All municipalities received GIS data for their historic resources to assist in planning efforts, as well as a specific written assessment regarding their active plans from the gap analysis, as well as a summary of the challenges to historic resources for informing planning efforts. An example can be seen below in the Best Practices Guide.

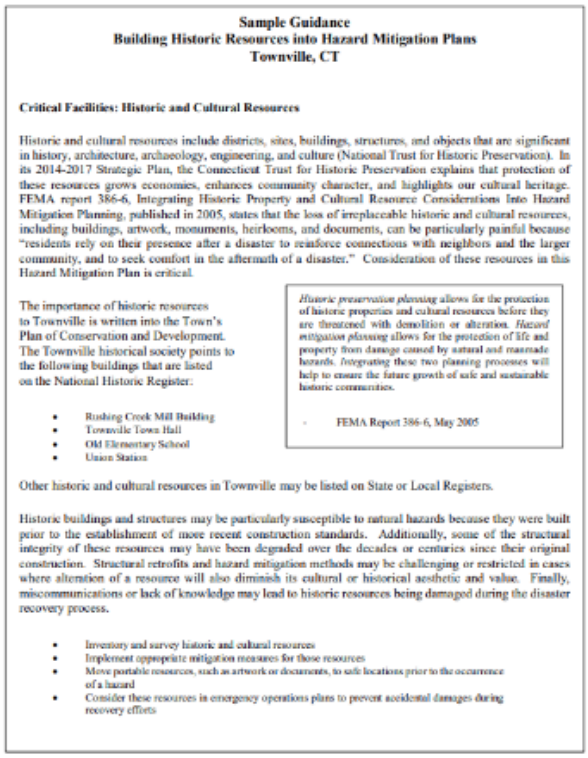
Best Practices Guide

Best Practices Guides were created for all municipalities in Connecticut to aid regional planners and communities in integrating "historic resources into resiliency planning and with resources for technical assistance."[54] Here too is guidance on language for regulation and planning that would aid in the protection of historic resources.

State Historic Preservation Plan Update

Lastly, the 2018 State Historic Preservation Plan (SHPP) was the first update of Connecticut's SHPP that included resilience planning for historical and cultural site preservation. This plan is updated every five years. The update includes information gathered from the "charettes, community gap analyses, and town meetings," that were held in the year 2016 through 2017.[55]

Example of Best Practices Guide (Goodwin et al., 2019):



Sample Guidance
Building Historic Resources into Hazard Mitigation Plans
Townville, CT

Critical Facilities: Historic and Cultural Resources

Historic and cultural resources include districts, sites, buildings, structures, and objects that are significant in history, architecture, archaeology, engineering, and culture (National Trust for Historic Preservation). In its 2014-2017 Strategic Plan, the Connecticut Trust for Historic Preservation explains that protection of these resources grows economies, enhances community character, and highlights our cultural heritage. FEMA report 386-6, Integrating Historic Property and Cultural Resource Considerations Into Hazard Mitigation Planning, published in 2005, states that the loss of irreplaceable historic and cultural resources, including buildings, artwork, monuments, heirlooms, and documents, can be particularly painful because "residents rely on their presence after a disaster to reinforce connections with neighbors and the larger community, and to seek comfort in the aftermath of a disaster." Consideration of these resources in this Hazard Mitigation Plan is critical.

The importance of historic resources to Townville is written into the Town's Plan of Conservation and Development. The Townville historical society points to the following buildings that are listed on the National Historic Register:

- Rushing Creek Mill Building
- Townville Town Hall
- Old Elementary School
- Union Station

Historic preservation planning allows for the protection of historic properties and cultural resources before they are threatened with demolition or alteration. Hazard mitigation planning allows for the protection of life and property from damage caused by natural and manmade hazards. Integrating these two planning processes will help to ensure the future growth of safe and sustainable historic communities.

FEMA Report 386-6, May 2005

Other historic and cultural resources in Townville may be listed on State or Local Registers.

Historic buildings and structures may be particularly susceptible to natural hazards because they were built prior to the establishment of more recent construction standards. Additionally, some of the structural integrity of these resources may have been degraded over the decades or centuries since their original construction. Structural retrofits and hazard mitigation methods may be challenging or restricted in cases where alteration of a resource will also diminish its cultural or historical aesthetic and value. Finally, miscommunications or lack of knowledge may lead to historic resources being damaged during the disaster recovery process.

- Inventory and survey historic and cultural resources
- Implement appropriate mitigation measures for those resources
- Move portable resources, such as artwork or documents, to safe locations prior to the occurrence of a hazard
- Consider these resources in emergency operations plans to prevent accidental damages during recovery efforts

More generally, it was found that there were eight strategies outlined that were considered most important for making historic and cultural resources resilient. They are:

1. Strategy: Identify Historic Resources
2. Strategy: Revisit Historic District Zoning Regulations
3. Strategy: Strengthen Recovery Planning
4. Strategy: Incorporate Historic Preservation into Planning Documents
5. Strategy: Revisit Floodplain Regulations and Ordinances
6. Strategy: Coordinate Regionally and with the State
7. Strategy: Structural Adaptation Measures
8. Strategy: Educate.[56]

For the report and additional information, visit:

Historic Preservation and Resiliency Planning in Connecticut

New Haven Preservation Trust Historic Resources Inventory

Preservation Meets Resiliency Municipal and State Planning for the Future

VI. Endnotes

Funding for this project was provided by the United States Department of Housing and Urban Development through the Community Development Block Grant National Disaster Recovery Program, as administered by the State of Connecticut, Department of Housing. This publication does not express the views of the Department of Housing or the State of Connecticut. The views and opinions expressed are those of the authors. Project support comes from the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) and the University of Connecticut. CIRCA's mission is to increase the resilience and sustainability of communities vulnerable to the growing impacts of climate change on the natural, built, and human environments.

Many thanks for the helpful comments and advice on the white paper provided by John Guszkowski and CIRCA staff.

DISCLAIMER: This white paper addresses issues of general interest and does not give any specific legal advice pertaining to any specific circumstance. Parties should obtain advice from a lawyer or other qualified professional before acting on the information in this paper.

VII. References

1. Please see our factsheet on integrating climate adaptation into local plans. (INSERT LINK LATER)
2. In the context of NHMPs, mitigation is an action that reduces risk, which can be confused with mitigation in climate change literature that refers to reduction in greenhouse gas contributions. For this paper, hazard mitigation is used similarly to adaptation, which is an action to reduce climate impacts on people, places, or ecosystems.
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10. Ibid.
11. Ibid.
12. Id. at 11.
13. *See* Goodwin et al., (2019).
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21. *See* the Connecticut State Historic Preservation Office at 6.
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23. *See* the Connecticut State Historic Preservation Office at 42.
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