

Municipal Vulnerability Preparedness Program Action Grant Case Study

Municipality: Town of Nantucket

Project Title: Resilient Nantucket: Designed for Adaptation

Award Year (FY): FY20

Grant Award: \$ 78,000

Match: \$ 30,000

Match Source:

One or Two Year Project: One year project

Municipal Department Leading Project: Planning Department and Town Administration

Project Website URL: <https://nantucket-ma.gov/1634/Resilient-Nantucket-2020-MVP-Grant>

Community Overview:

- As an island and historic community located 30 miles off the coast of Cape Cod, the Town is extremely vulnerable to the effects of climate change.
- The community's historic resources are increasingly threatened by short-term flood events and longer-term sea level rise.
- Nantucket's local historic district was established in 1955, and the Town of Nantucket and Village of Sconset were made National Historic Landmark Districts in 1966.
- The island is one of the United States' largest National Historic Landmark Districts with some 1,000 pre-1860s structures contributing to its historical, cultural, and architectural significance.
- The island has a population of approximately 11,000 people year-round with more than 50,000 residing on the island seasonally.
- The Town's 2019 Municipal Vulnerability Preparedness (MVP) workshop and report identified the need for preserving its historic resources in addition to infrastructure, economic, social/cultural and natural resources.

Project Description and Goals:

- Nantucket's identity is closely associated with its historic character. The loss of Nantucket's historic setting and the sense-of-place is a significant vulnerability to the community and its economy.
- These historic buildings were constructed before the development and adoption of many building codes and zoning regulations, so they may be located in risk zones and built in ways that make them more susceptible to hazards than a new building.
- Implementing adaptation measures on these buildings can be complicated by requirements or desires to maintain their historic characters.
- The Town of Nantucket and the project team developed and applied a systematic process to engage all community members and stakeholders to prepare Guidelines for Adaptation and Elevation Design in Nantucket's historical district.

- Several public information sessions were held throughout the length of this project. Most notable were:
 - A Flood Insurance Program Workshop and Open House, with speakers from FEMA, state and local insurance providers to present island property owners with materials, information and Q&A on Flood Insurance.
 - A public presentation of the Resilient Nantucket Digital Toolkit, which provides information on flood risk, flood preparedness, flood insurance, flood recovery and flood adaptation alternatives useful for historic properties.
 - Several stakeholder workshops and community charettes to organize, build and refine the content for Nantucket’s Guidelines for Flooding Adaptation and Building Elevation Design document.
 - A three-day online conference showcasing the work of this project along with presentations by local, state, national and international experts. Information included resilience planning and cultural resource protection efforts in Europe and the United States as best practices for adapting historic communities to the impacts of our world’s changing climate.
- This project successfully adapted to the challenges of having all meetings conducted via Zoom due to COVID-19. The project received a one-year extension by the state and was completed by June 30, 2021.
- The Resilient Nantucket: Flooding Adaptation & Building Elevation Design Guidelines were formerly adopted as an addendum to “Building with Nantucket in Mind” by the Nantucket Historic District Commission by unanimous vote on June 11, 2021.

Results and Deliverables:

- [Resilient Nantucket Digital Toolkit](#)
- [Resilient Nantucket: Flooding Adaptation & Building Elevation Design Guidelines](#)
- [Resilient Nantucket: Designed for Adaptation Forum \(presentations and video recordings\)](#)
- [Resilient Nantucket Project Website](#)

Lessons Learned:

- The Nantucket Historic District Commission, staff and the public are more aware of threats to historic resources and what FEMA recommended, and National Park Service recommended actions are to make our historic resources more resilient. Even through a pandemic, the consultants were able to provide a program that engaged the community in the process of creating the design guidelines and toolkit. The Nantucket Historic District Commission has a roadmap that follows guidelines for historic districts to be able to adapt our structures appropriately in the face of climate change and sea-level-rise. These much needed and much anticipated design guidelines will be used for all applications before the commission where a historic structure must adapt to FEMA standards. In addition, the outcomes and knowledge that came out of this project will also be integrated into the Town’s ongoing Coastal Resilience Planning process.

- The best way for other communities like Nantucket (a historic coastal community) to learn from our project and process is to review all the videos and pdfs posted on the Town's website. Although the project had to move forward during the pandemic, the up-side is the PDFs of PowerPoints from our public community engagements, whereas, in person –the information presented wouldn't be available to everyone all the time on the web. This way, *any historic coastal community* (even outside Massachusetts) can learn from our processes and outcomes. There is a lot of information for other communities to use moving forward in this important effort, both with the design guideless themselves and the Resilience Toolkit.

Partners and Other Support:

- **Nantucket Preservation Trust** <https://www.nantucketpreservation.org/> → provided historic information and overall project support. NPT is a nonprofit, membership-based organization with a focus on the preservation of the island's historic architecture. Not only did NPT promote the April Forum to their membership, they also hosted the sale of John Englander's book, "Moving to Higher Ground." John Englander is an oceanographer & Sea Level Rise Expert/Author who spoke at the April Forum.
- **University of Florida's Preservation Institute Nantucket** → provided recent 3D visualizations and lidar scanning information. The UF Preservation Institute: Nantucket (PIN) has operated as a center for education in historic research and architectural preservation on Nantucket Island since 1972. PIN is an interdisciplinary program that exposes participants to the theories and methodologies of international cultural heritage conservation and the research, documentation, and management of current and potential World Heritage sites. Nantucket and its historic and natural environments serve as a learning laboratory for their students.
- **Nantucket Historical Association** → overall project partner and promoted the April Forum
- **ReMain Nantucket** → overall project partner and promoted the April Forum
- **ACKlimate Nantucket** → overall project partner and promoted the entire MVP Resilient Nantucket project.
- **Preservation Massachusetts, Inc.** → overall project partner and promoted the April Forum.
- **National Alliance of Preservation Commissions** → overall project partner. NAPC performs training opportunities for preservation commissions across the country. Nantucket hosted a forum November 2020. NAPC has created a "Disaster Planning & Recovery for Historic Communities" program that provides a foundation for understanding disaster planning, both for future extreme climate-related events or conditions or in a recovery from natural disasters. It incorporates considerations for the protection of historic properties and cultural resources. NAPC was very happy to be a sponsor in our MVP Action Grant Project Final Forum April 22 through 24th.
- **Massachusetts Emergency Management Agency (MEMA)** → helped present during the September 2020 Community Forum

- **Cape Cod Cooperative Extension, Woods Hole Sea Grant & Cape Cod Commission** – Their Floodplain & CRS Specialist helped present during the September 2020 Community Forum. They are familiar with both floodplain regulations and historic structures within the Commonwealth of Massachusetts. They have previously held education events for architects, developers, and property owners on common questions and information to help identify when structures are eligible for exemption from the Substantial Improvement and Substantial Damage floodplain requirements.
- **Rodgers Gray** → helped present during the September 2020 Community Forum. Rodgers Gray Vice President “Joe Flood,” a Flood Insurance Specialist & Vice President, presented at the September 2020 forum on the importance of Flood Insurance.
- **Cimpatico** – a livestream news and information site, hosted the Public policy discussion at the April Forum.
- The following committees from the **Town of Nantucket** – each participated in the project by being engaged in a public discussion/charrette/forum or by providing much needed feedback on the design guidelines and toolkit:
 - Coastal Resiliency Advisory Committee (CRAC)
 - Historic District Commission (HDC)
 - Historical Commission (NHC)
 - Historic Structures Advisory Board (HSAB)
 - ‘Sconset Advisory Board (SAB)

Project Photos:



Resilient Nantucket - 2/14/20

230 views • Streamed live on Feb 14, 2020

RESILIENT NANTUCKET: DESIGNED FOR ADAPTATION

THE CRAIG GROUP, THOMASON & ASSOCIATES AND PRESERVATION INSTITUTE NANTUCKET ARE ASSISTING THE TOWN OF NANTUCKET THROUGH A MASSACHUSETTS MUNICIPAL VULNERABILITY PREPAREDNESS (MVP) GRANT TO DEVELOP A PUBLIC AWARENESS TOOLKIT ON ADAPTATION STRATEGIES FOR PRIVATE PROPERTY OWNERS AND DESIGN GUIDELINES FOR THE TOWN OF NANTUCKET'S NATIONAL HISTORIC LANDMARK DISTRICT.

THE CRAIG GROUP
Your partners in preservation, planning and policy.

Thomason & Associates

PIN Preservation Institute: Nantucket

RESILIENT NANTUCKET
Community Design
Guideline Charrette
SATURDAY, NOVEMBER 14
10:00 AM TO 1:00 PM
VIA ZOOM WEBINAR

"Best Practices" – Sea Street Pump Station

RESILIENT NANTUCKET
FOLLOW-UP
Community Design
Guideline Charrette
SATURDAY, NOVEMBER 21
10:00 AM TO 1:00 PM
VIA ZOOM WEBINAR

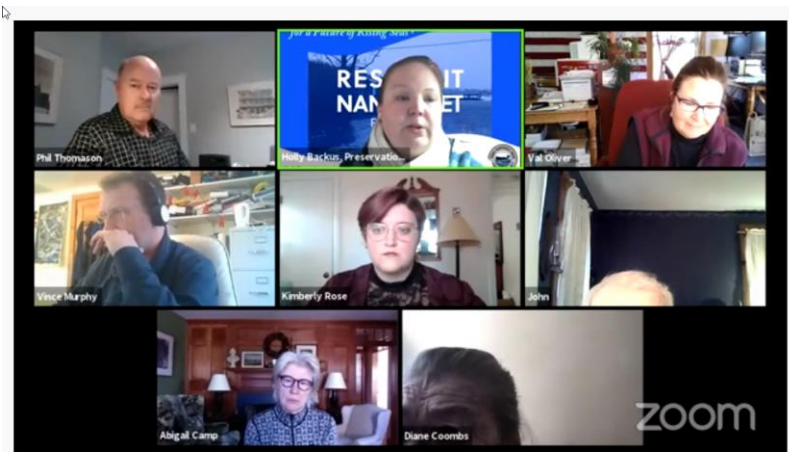
NANTUCKET, MASSACHUSETTS

FLOODING ADAPTATION & BUILDING ELEVATION
DESIGN GUIDELINES
SUMMARY OF RESOURCES

OCTOBER, 2020

Community Charrettes

Development of the Resilient Guidelines & engagement for public input
November 2020



Nantucket Historic District Commission - 2/26/21

75 views • Streamed live on Feb 26, 2021

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Resilient Elevation Guidelines – Best Practices

Elevation Examples

- Elevation projects primary goal is to preserve & maintain the essential architectural character as much as possible and follow the NPS's *Guidelines on Flood Adaptation for Rehabilitating Historic Buildings*
- Other mitigation approaches other than elevation – to keep Nantucket's historic character, while meeting flood risk requirements

FEMA Resources



Integrating Historic Property and Cultural Resource Considerations Into Hazard Mitigation Planning

State and Local Mitigation Planning How-To Guide

FEMA 386-6 / May 2005



National Flood Insurance Program (NFIP)

Floodplain Management Bulletin Historic Structures

FEMA P-467-2

May 2008



Final MVP Forum April 22, 2021 – April 24, 2021

RESILIENT NANTUCKET

POLICY TODAY
CLIMATE CRISIS PANEL
Crafting Coastal Resilience Policy
Hosted by Doug Parsons, Climate Adaptation

 John Englander Rising Seas Institute	 Manikka Bowman Urban Land Institute Boston	 Brenda Ekwurzel Union of Concerned Scientists	 James Lindberg National Trust for Historic Preservation
 Catherine Leonard International National Trusts Organisation	 Dylan Fernandes Commonwealth Representative	 Marybeth Griffin Massachusetts Emergency Management Agency	 Matt Fine Something Natural

RESILIENT NANTUCKET **LIVE**

CLIMATE CRISIS PANEL: CRAFTING COASTAL RESILIENCE POLICY
Discussing what works, what hasn't, what needs to change and why

21/4/24 **TAKEAWAYS**

Resilient NANTUCKET Forum: Day Two - 4/24/21

Watch later Share

STREAM STARTING SOON

POLICY TODAY
CLIMATE CRISIS PANEL
Crafting Coastal Resilience Policy
Hosted by Doug Parsons, Climate Adaptation

SPONSORED BY

MORE VIDEOS

3:21:08 / 5:01:27

YouTube