

HISTORIC RESOURCE DISASTER PLANNING AND CLIMATE RESILIENCE

INTRODUCTION

Early development in Pennsylvania, and many other early colonies, routinely occurred along the banks of waterways. With Pennsylvania boasting the longest network of streams and rivers in the continental United States—totaling a robust 86,000 miles—many historic communities are especially vulnerable to flooding. Other hazards exist like high wind, earthquakes, excessive heat, and drought that can cause damage to historic and cultural resources. The changing climate further increases the power of natural disasters and can result in unprecedented weather conditions.

IMPLEMENTATION

1. Incorporate disaster planning and climate considerations into historic resource surveys (See the Historic Resource Surveys Toolkit for more information)
 - The capacity to assess damage to historic properties during disaster response hinges on consistent and up to date information of historic properties in hazard-affected areas
2. Integrate hazard mitigation planning (planning for the protection of life and property from damage caused by natural and manmade hazards) and historic preservation planning (planning for the protection of life and property before they are threatened with demolition or alteration). This can be accomplished through a variety of planning efforts, including comprehensive plans, preservation plans, heritage interpretive

plans, and master plans.

- Municipalities can build upon state and county hazard mitigation plans by more fully detailing how to minimize risk to historic properties within their limits.
3. Develop a map of climate change threats to cultural resources. This can include developing hazard overlays for culture resource maps in GIS that help visualize where historic and cultural resources are most at risk.
 4. Municipalities can provide property owners with guidance on maintenance of historic buildings to minimize damage in the event of flooding, high winds, earthquakes, or other natural disasters.
 - Maintenance is the foundation of resilience planning for a property



Solar Panels on this property in New Orleans have minimal, if any impact, on the buildings street facing facade.

- Landscape projects designed to reduce stormwater runoff can have relatively low impact to the site and are inexpensive to implement (See the Green Stormwater Toolkit for more information)
5. Historic Commissions (HC) and Historic Architectural Review Boards (HARB) should undertake training and understand the basics of disaster planning and resilience to better incorporate these aspects into their decision-making and advocacy work.
 6. HARBS can approve retrofits to historic buildings that strengthen the structure and mitigate future damage
 - Examples include elevating buildings in floodplains, seismic retrofits, fortification of roofs from high winds
 - The National Park Service Guidelines on Flood Adaption for Rehabilitating Historic Buildings should be utilized
 7. HCs and municipalities can engage communities about the hazards their historic resources face and prepare them for loss when the physical preservation of historic and culturally significant places is no longer realistic or feasible.
 8. Energy efficient technology, such as solar panels and heat pumps, should be incorporated into historic landscapes and buildings with consideration given on how to screen or minimize their appearance. Regulations should consider historic structures and landscapes but not preclude the use of energy efficient technology because of them.
 - Building integrated photovoltaics could be considered during the renovation or rehabilitation of historic buildings to increase energy efficiency with less visual intrusion



SUCCESSFUL CASE STUDIES

- Chester County's Hazard Mitigation Plan, July 2021, identifies historic resources in the 1% annual chance flood level for each municipality
- Chester County Climate Action Plan, 2021, supports adaptive reuse and incorporating the protection of historic resources into planning and policy
- Charleston Resilience Guidance, July 2024, Charleston, SC
- Weather It Together: A Cultural Resource Hazard Mitigation Plan for Annapolis, MD, April 2018
- Resilient Stewardship: Preserving You Historic Property in an Era of Climate Change, State Historic Preservation Office of Connecticut, June 2019
- National Alliance of Preservation Commissions, CAMP Resilience and Disaster Planning
- Historic Resources Climate Change Vulnerability Assessment and Adaptation Plan, Portsmouth, NH, 2017
- Auburn, NY Deconstruction Resolution, 2024
- Pompeii Archeological Park, Italy, Photovoltaic Panels disguised as terracotta roof tiles, 2023