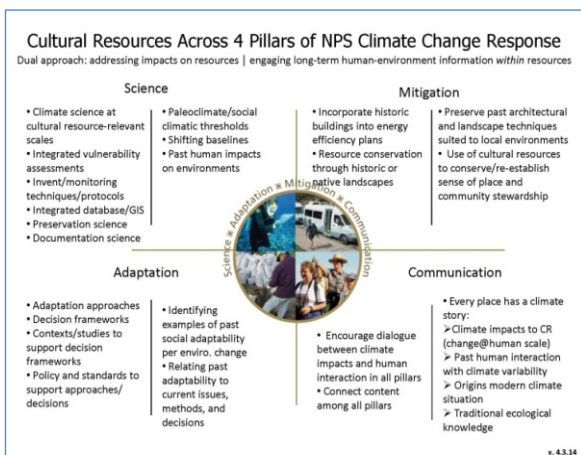


Planning for Climate Change Impacts to Nationally Significant Cultural Resources



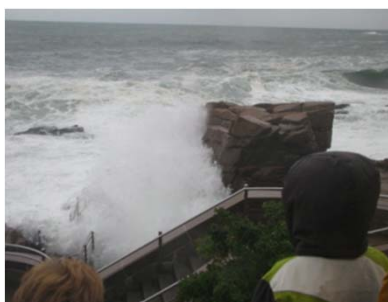
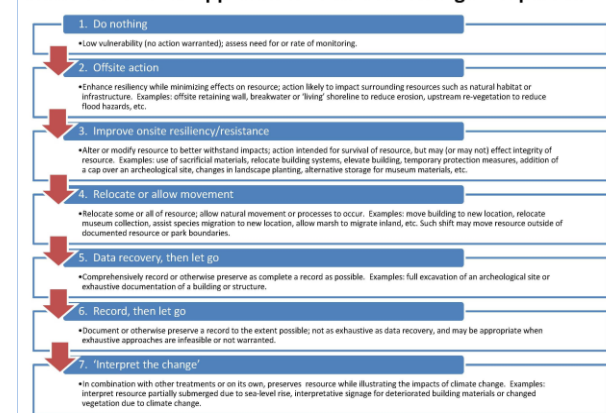
National Park Service (NPS) climate change response has primarily focused on understanding climate change impacts to natural resources. NPS managers are working to understand the potential impacts to cultural resources, which have their own unique sets of issues. Cultural resources are unique, irreplaceable and once lost, they are lost forever. If moved or altered, they may lose context, significance and meaning.

NPS cultural resource management planning for climate change is based on two tenants:

- (1) Cultural resources are primary sources of data regarding human interactions with environmental change; and,
- (2) changing climates affect cultural resource preservation and maintenance

Case Studies

Cultural Resource Approaches to Climate Change Adaptation



Thunder Hole viewing platform

Iconic Facilities

For over 100 years, Thunder Hole has been one of Acadia's most popular destinations. The viewing platform requires increasingly frequent cyclic maintenance and hardening to withstand impacts from rising seas and more powerful storms. In the future, as predicted climate change impacts increase, park managers may not be able to maintain this facility.



Sieur de Monts entrance road over Cromwell Brook

Historic Roads and Cultural Landscapes

Redesigned culverts on historic roads increase hydraulic capacity, prevent flooding, such as at the Sieur de Monts cultural landscape, and restore natural resource conditions, including aquatic organism passage. Conditions before and after replacing the culvert are shown.



Before and after treatment of the historic Jesup Path, Sieur de Monts Cultural Landscape



Historic Structures

Built in 1855, this former ship store is listed on the National Register of Historic Places. It is significant for its role in the community and for its architecture. Its integrity of fabric and location contributes to its significance. Rising sea levels will undermine the foundation of the building, but if the NPS decides to move it away from the shore, then the building will lose integrity of setting. NPS resource managers must decide what adaptation and mitigation measures to use based on understanding the building's significance and uniqueness, guided by NPS policy and federal laws.



"Blue Duck" on Little Cranberry Island

Archeological Sites



Coastal shell middens are impacted by higher frequency, higher intensity storms related to climate change. This site is frequently inundated and has been eroded. The NPS armored the erosion bluff in 1977 after severe erosion impacted archeological deposits. Adaptation strategies for such sites require an understanding of their significance to plan for management. For these unique and highly significant resources, managers might choose from a range of approaches, from hard armoring the bluff face to performing data recovery and allowing erosion to continue.