# Fulfilling the Promise of "Parks to People" in a Changing Environment: The Gateway National Recreation Area Experience

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#### Introduction

CLIMATE CHANGE WILL TEST THE ABILITY OF THE NATIONAL PARK SERVICE (NPS) to fulfill the legislative purpose of many of its coastal parks. In parks that serve primarily urban populations, these changes will impact efforts to connect to diverse audiences and a new generation of visitors and stewards. Gateway National Recreation Area (Gateway) faced this challenge during a multi-year process to complete a general management plan (GMP) that set priorities for cultural resource management while addressing climate change and also enhancing this coastal park as a recreation destination. The plan established a process for evaluating and managing hundreds of historic structures, including "letting go" of some historic resources, and provided opportunities for other agencies and the public to comment on the results. The park's new vision and decisions on preserving resources and improving facilities were tested by Hurricane Sandy, which caused widespread flooding and destruction throughout Gateway, and raised questions on how recovery should proceed in the face of new federal policies. This essay describes how the planning process evolved as climate change tools were being developed to address the decades-long deterioration of fundamental cultural resources due to the lack of maintenance.

#### A national park experience in the country's largest metropolitan area

Gateway is a complex mosaic of natural and cultural resources and recreational facilities interwoven with New York City neighborhoods and small New Jersey towns. Split into three different areas in Monmouth County, New Jersey, and the New York City boroughs of Brooklyn, Queens, and Staten Island, the park manages approximately 21,680 acres of land and waters. The park's coastal and estuarine environments include open bays, ocean, marsh islands, shoreline, dunes, and maritime and successional forests. The beaches, coastline, and adjacent waters are the park's primary recreation destination for millions of people each year.

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The historic landscapes, buildings, collections, and archaeological sites reflect more than two centuries of military coastal defense, aviation, and maritime history, including the oldest continuously operating lighthouse in the United States.

Created in 1972, Gateway was a reflection of an ongoing evolution of the national park concept, from a system of parks preserving the natural wonders and scenic masterpieces in relatively remote and secluded areas, to a system that also included urban-edge parks that balance natural and cultural resources with recreational opportunities. Envisioned as a ring of green space and shoreline around the New York Outer Harbor, this new national recreation area was established to provide public access to shorelines for water-based recreation, and to preserve Jamaica Bay, coastal defense history, and the Sandy Hook maritime resources. Gateway inherited highly developed and manipulated landscapes that brought hundreds of buildings and structures into the national park system, many in deteriorated condition, from city and state parks and a transfer of management from other federal agencies, including United States Army and United States Navy installations.

In 2007, Gateway began a planning process to update its 1979 GMP. The overarching guidance for each unit of the national park system is provided in its GMP, which identifies the desired resource conditions and visitor experiences to be achieved in that park. A multidisciplinary team consisting of 45 NPS staff covering a variety of professional disciplines was assembled to inform and guide the planning process. Interested citizens, partner organiza-



Figure 1. Gateway National Recreation Area overview.

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tions, and public agencies also played an important role in contributing ideas and comments throughout the planning effort.

Critical issues to be addressed in the GMP were identified following dozens of meetings with NPS staff, partners, and the public. Specific topics were explored with NPS scientists and resource experts and academic partners at Columbia, Pennsylvania State, and Rutgers universities to further define issues around climate change, historic preservation, visitor use, and shifting shorelines. The planning team tackled solutions for 22 key questions, including: "What are the best approaches for managing the potential impacts of sea-level rise and other climate-related changes, including loss of habitats, wetlands, shorelines, historic buildings, and infrastructure?"; "What are the best ways to manage the park's cultural resources and landscapes to ensure their preservation?"; "How can Gateway identify priorities for addressing the deferred maintenance of cultural resources?"; and "How should NPS shape a 'national park experience' at Gateway in the midst of the country's largest metropolitan area that engages local, national, and global audiences?"

# Planning for climate change

At the onset of the GMP, insufficient guidance was available to planners on addressing cultural resource management in the context of climate change. To better understand resource issues and how park management would need to adapt in the future, Gateway staff worked with Columbia University to identify climate change impacts that may significantly affect Gateway, such as how potential impacts such as sea-level rise, precipitation changes, temperature changes, and changes in the frequency or intensity of extreme weather events would contribute to secondary effects including coastal erosion, damage to park assets, and cultural resource damage and loss. Recreational infrastructure damage resulting from these combined effects would also diminish Gateway's ability to fulfill its mandate to preserve and protect its resources (Kirchoff and Stokes 2009).

Gateway had been experiencing changes due to frequency and intensity of storm events, including increases in storm flooding associated with a nor'easter in 2010, Hurricane Irene in 2011, and Hurricane Sandy in 2012. Early efforts by the park to predict future threats from storm and sea-level rise resulted in a series of maps that charted potential flooding of the park's historic buildings over 30-year periods under a variety of scenarios. Most of the park's well-known and significant historic buildings, such as the Jacob Riis Park Bath House in Jamaica Bay, Officers' Row at Sandy Hook, and Battery Weed at Fort Wadsworth, are increasingly threatened by sea-level rise and coastal storms.

## Ensuring a sustainable future for cultural resources

According to Gateway's Park asset management plan, there are nearly 1,300 assets such as roads, utilities, treatment systems, and buildings that the park should maintain in acceptable condition and sustain over time. Currently, the deferred maintenance backlog totals more than \$300 million, over ten times the park's annual operating budget. The majority of the park's historic buildings and landscapes are divided into nine historic districts listed on the National Register of Historic Places: Sandy Hook Light National Historic Landmark; Fort



Figure 2. Battery Arrowsmith.

Hancock and Sandy Hook Proving Ground National Historic Landmark District; Fort Tilden, Fort Wadsworth, Floyd Bennett Field, Jacob Riis Park, and Miller Army Airfield National Register Historic Districts; and three National Register-eligible districts: Silver Gull Beach Club, Breezy Point Surf Club, and Far Rockaway Coast Guard Station.

With more than 800 historic buildings, structures, landscapes, and archaeological sites, Gateway has been challenged to maintain and preserve these resources with competing funding and staffing priorities. The long-term use and preservation of these resources has been the focus of various planning initiatives over the last 30 years and, as funding was available, repairs and preventative maintenance were completed where possible. Many of the resources remained vacant, in deteriorated condition, and in need of major capital repairs since the funding necessary to preserve them far exceeded that which was available. Unsustainable maintenance funding combined with future climate change impacts prompted the GMP team to consider a different approach.

Beginning in 2010, condition assessments were conducted by a team of cultural resource subject-matter experts to inform the treatment of historic structure and landscape conditions, safety, and interpretive experiences. The information derived from these assessments greatly contributed to formulating desired conditions and visitor experiences for the draft management alternatives. This information also led to the awareness that some of resources were in such poor condition that they could no longer be preserved, and that conclusion was clearly stated in the GMP.

#### New vision, new focus

NPS and multiple city of New York (NYC) agencies began a collaborative effort in 2011 to create a seamless network of parks and open spaces encompassing Gateway and NYC parklands. NPS and NYC had been independently managing thousands of acres of open spaces, natural resources and community recreation areas, with many of these spaces adjacent to each other and without a common vision for these areas. A new vision developed for the Jamaica Bay parklands that focused on creating a multi-day recreation destination with expanded visitor services, including lodging, camping, and tours. In this vision, rehabilitated historic buildings and landscapes would form the foundation for new programs and activities tailored to attracting a diversity of new park visitors.

As this new vision was forming, an on-site meeting was held with the New Jersey and New York State Historic Preservation Offices (SHPOs), briefing them on the scope of the draft management alternatives and the park's intention to create a special management zone in the GMP that identified certain historic structures as "ruins." Those resources identified as ruins were already in deteriorated condition, and the complexity and cost of stabilizing or preserving them far exceeded NPS or partnership financial capabilities. These resources would be documented and access to them restricted to protect the public as they returned to their component elements through the forces of nature.

In order to guide the GMP management alternatives, NPS staff evaluated and prioritized the 330 structures and associated landscapes that are contributing resources to the park's nine National Register districts. A numerical score was assigned to each resource based on

Figure 3. Battery Richmond, Staten Island Unit.



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the following eight criteria: fundamental resource; National Register status and level of significance; condition; uniqueness; visibility; potential use; and vulnerability to future storm events. Based on these scores, resources were placed in one of three bands: preserve, stabilize, or ruin, defined as:

- **Preserve:** Actions will be taken to maintain and preserve these structures. Efforts will be made to maintain these structures in their current condition or improve their condition through preservation or rehabilitation by NPS or partners. These structures will be used to support visitor programs, interpretation, operations, and appropriate commercial uses.
- **Stabilize:** Structures where actions will be taken to stabilize unsafe, damaged, or deteriorated properties while retaining their present form. Minimal efforts will be made to maintain the structure in its current condition; unless a use and/or funding is found, the structure may fall into disrepair.
- **Ruin:** Structures in poor condition, where one or more of the basic structural elements have been lost, and which are without viable re-use options due to this condition. Resources may be removed or fenced off to keep them from being safety hazards; no work will be done to better their condition.

The banding exercise concluded that more than 25% of the contributing resources should be identified as "ruins." NPS staff acknowledged that the evaluation process was a first step and anticipated that, as new data or condition information became available, the scoring would be updated.

## The Hurricane Sandy test

In October 2012, Hurricane Sandy came ashore and caused significant damage to many coastal areas of Gateway. The hurricane produced heavy winds, tidal surge, and rain that resulted in severe flooding and extensive damage at popular park areas such as Jacob Riis Park, Fort Tilden, Jamaica Bay Wildlife Refuge, Great Kills Park, and Sandy Hook. Hurricane Sandy tidal surges were the highest in almost 200 years and consistent with Columbia University's projections of coastal storm damage for the next century. Park infrastructure elements were destroyed and historic structures and recreation sites were severely damaged. Two months after the hurricane event, immense pressure mounted on the planning team to finalize the vision and guidance of the GMP to set the framework for Hurricane Sandy recovery. Would the vision still hold? How would incorporating new climate change guidance change the options for cultural resource management, visitor experience and facilities?

To guide hurricane recovery decisions, new elevation maps were developed that applied the Federal Emergency Management Agency (FEMA) guidance, including the advisory base flood elevation for the NYC area. In addition, NPS staff began collecting first-floor elevation data for all buildings at Gateway, the first initiative of its kind in the national park system. These data have been used in hurricane recovery resource management initiatives and facility planning. Following months of recovery efforts and initial damage assessment, the planning team, in conjunction with NPS senior leadership, evaluated the alternatives to determine



Figure 4. Erosion at the Sandy Hook Nike Missile Launch site caused by Hurricane Sandy storm surge.

whether changes were necessary. The group concluded that the broad vision for each alternative remained intact. Using the updated resource and facility condition data as well as new agency guidance and requirements, the planning team revised the scope of recreation facility development. In most cases, the recreation and community uses in historic buildings and landscapes were scaled back, reflecting a revised approach from permanent structures and hardened surfaces to smaller, flexible and more resilient areas. As the GMP continues to be implemented, creative design solutions to protect the natural and cultural environments will determine whether the complete vision outlined in the GMP is still attainable.

#### Consultation and public involvement

Throughout the GMP process, the issues of climate change and how the future management of cultural resources would be prioritized were communicated to the public, and their input and comments sought and considered. After thousands of comments were received on the draft GMP, only a small fraction expressed concerns about climate change impacts, surprising to the planning team considering the damage caused to the park and community from Hurricane Sandy. The public has continued to support preservation efforts and recreational uses in the park.

In October 2013 NPS invited the New Jersey and New York SHPOs, the Advisory Council on Historic Preservation, the Delaware Nation, the Delaware Tribe of Indians, and the Stockbridge-Munsee Community to participate in consultation on the development of a Section 106 programmatic agreement that outlined how compliance with Section 106 of the National Historic Preservation Act would proceed as the GMP is implemented. This new programmatic agreement would guide the Section 106 process as the decisions regarding management of historic properties designated to be treated as "ruins" are made. A copy of the signed programmatic agreement was included in the GMP record of decision.

## Conclusion

Throughout the GMP process, the planning team had to continuously adapt to changes brought on by internal, political, community, or environmental influences. The original motivations for undertaking the GMP process—responding to future climate change impacts, ensuring a sustainable future for cultural resources, and engaging new park visitors—remained consistent despite both internal and external pressures. A broad representation of park staff, including maintenance, business services, and interpretation, was involved in determining solutions to cultural resource management issues. Expert guidance from a team of historians, preservation specialists, and historical landscape architects offered new opportunities and creative approaches to future resource stewardship. The consultative process among the park's many stakeholders, including the public and state and local partners, was critical to informing the ultimate decision-making process. The New Jersey and New York SHPOs are currently working with park staff on implementing GMP projects as outlined in the programmatic agreement. Today, Gateway has a framework for the future that provides both an exciting vision and a practical approach to fulfilling the "parks to the people" legacy of its original establishment.

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