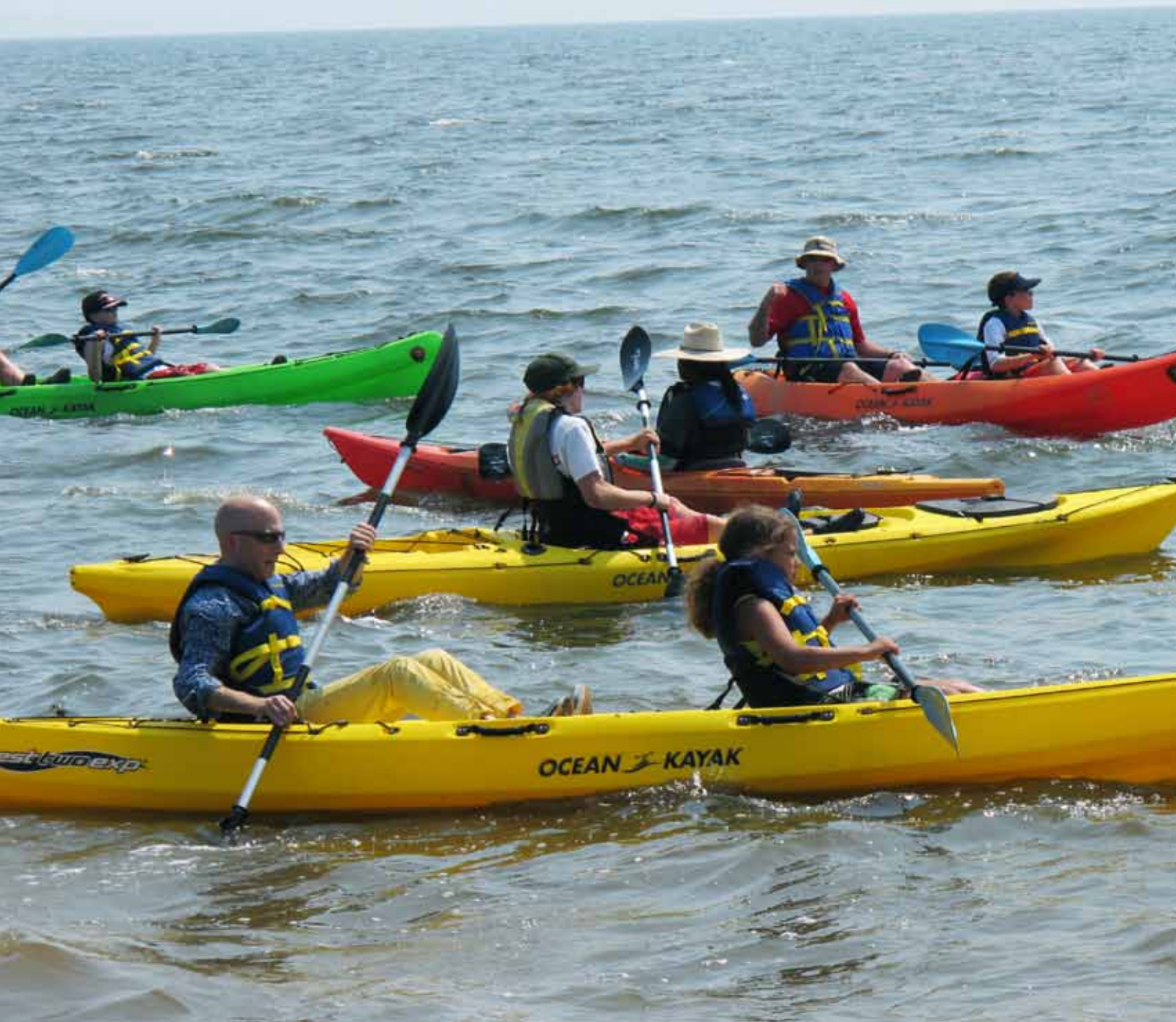
National Park Service
U.S. Department of the Interior

A New Vision for a Great Urban National Park

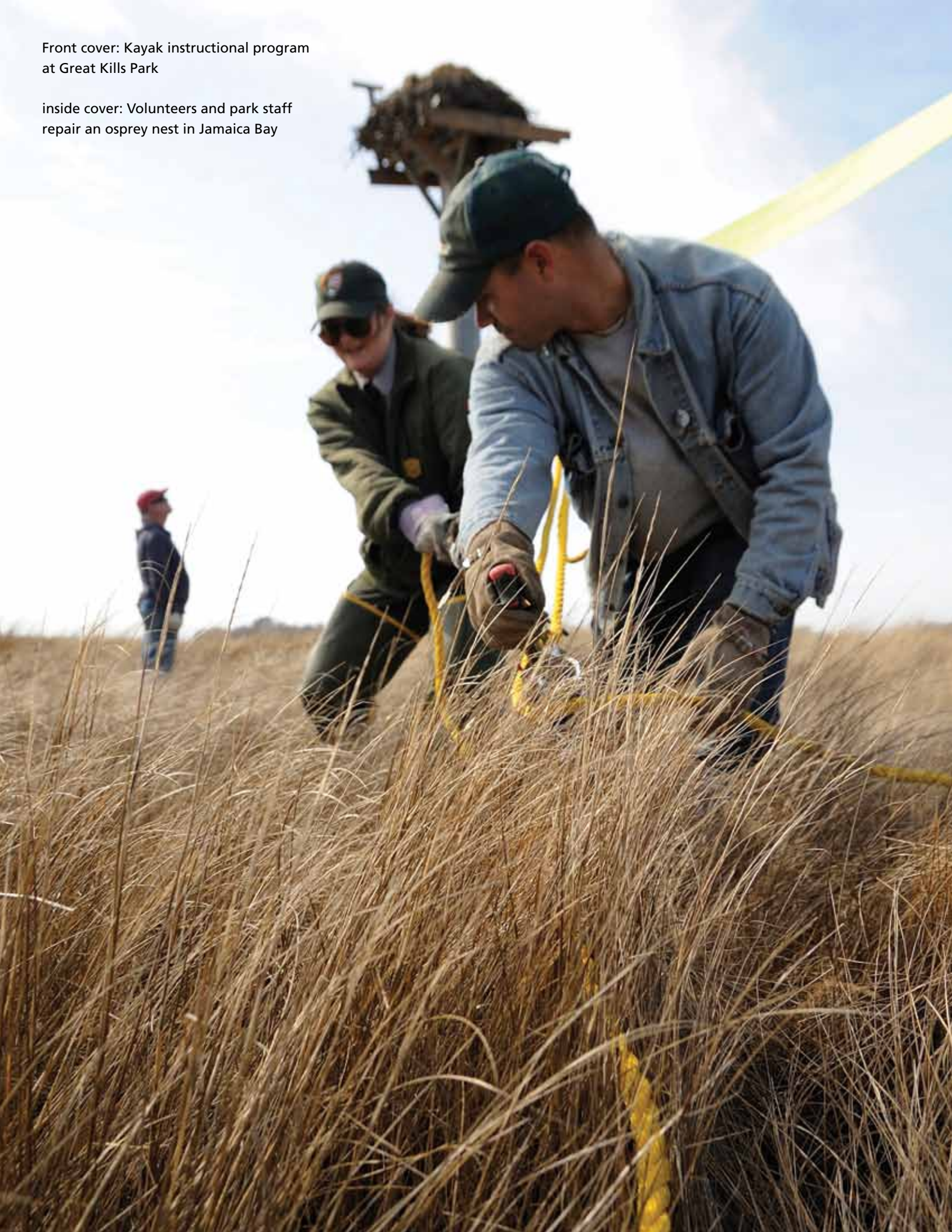
Gateway National Recreation Area

Final General Management Plan
Environmental Impact Statement
April 2014



Front cover: Kayak instructional program at Great Kills Park

inside cover: Volunteers and park staff repair an osprey nest in Jamaica Bay



UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
FINAL GENERAL MANAGEMENT PLAN / ENVIRONMENTAL IMPACT STATEMENT
Gateway National Recreation Area, New Jersey and New York

Lead Agency: National Park Service, U.S. Department of the Interior

Cooperating Agency: The City of New York

Gateway National Recreation Area (Gateway) is an urban oasis. Located in the heart of the nation's largest metropolitan area, it is a close-to-home retreat for millions of people every year. When Congress established Gateway in 1972, it was intended to be a national park within easy reach of the urban residents in the New York and New Jersey metropolitan area. Forty years later, Gateway is in need of a new vision and general management plan (GMP) for the future.

This GMP/Final Environmental Impact Statement (GMP/EIS) describes the no-action alternative and two action alternatives for future management of Gateway, the environment that would be affected by the alternative management actions, and the environmental consequences of implementing the alternatives.

Alternative A is a continuation of current management and trends. The park's enabling legislation and current GMP (NPS 1979d) would continue to guide park management. Gateway would manage park resources and visitor use as it does today, with no major change in direction.

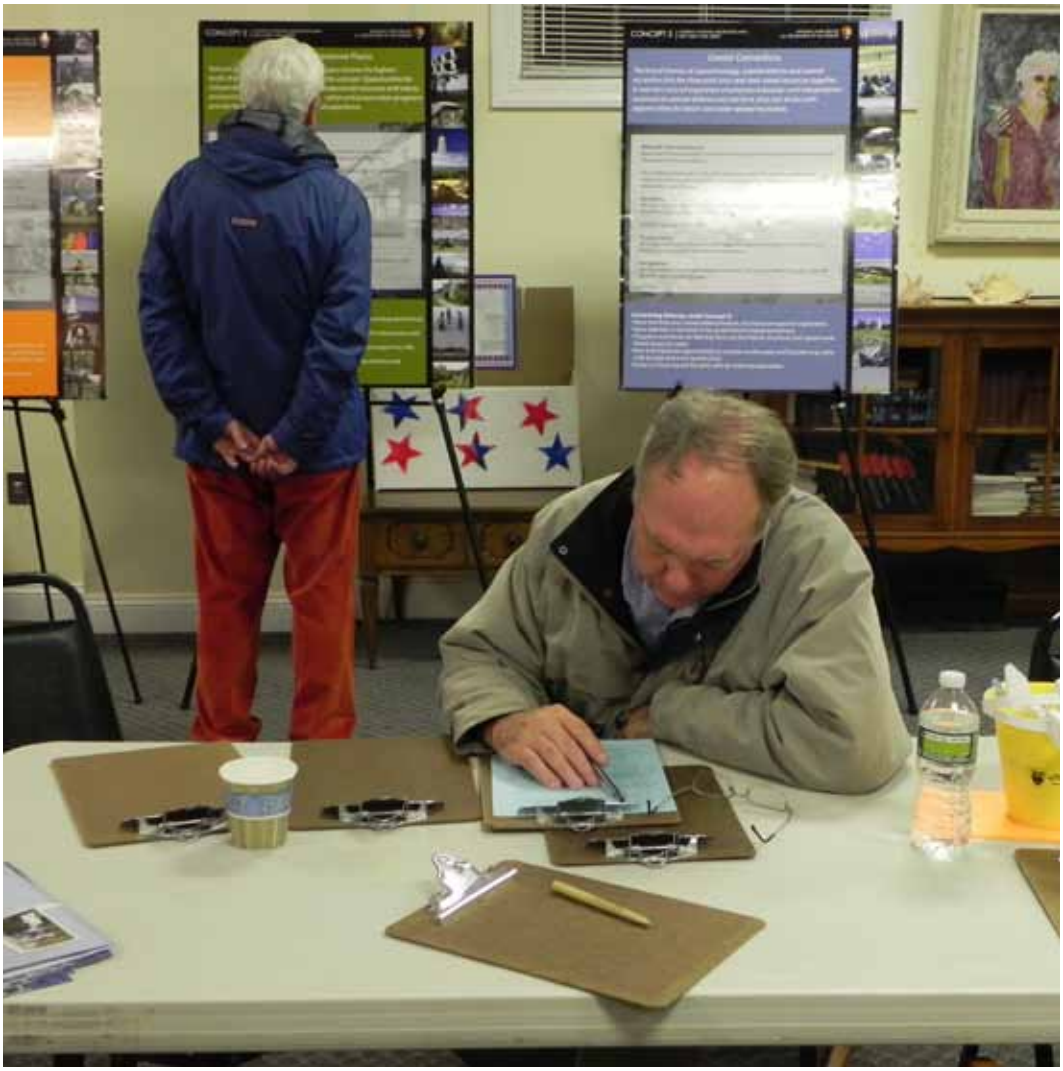
Alternative B is the National Park Service (NPS) Preferred Alternative. This alternative provides the widest range of activities and most recreation opportunities in dispersed locations throughout the park. New connections would be forged with park lands and communities adjacent to Gateway and nearby. This alternative offers the most instructional programming and skills development and draws people into the park to increase awareness and enjoyment of Gateway's historic resources and the natural environment. More convenient and affordable park access is developed through trail connections, bicycle infrastructure, public transit, and waterborne transportation. This alternative prioritizes joint management and operations for visitor services, orientation, programs, and facilities with New York City and other partners.

Alternative C provides the most opportunities for independent exploration and "wild" experiences that immerse visitors into natural areas, historic sites, and landscapes. This alternative increases the visibility, enjoyment, and protection of coastal resources and focuses resource management on beach and dune ecosystems and coastal defense landscapes. New recreational programming emphasizes low-impact activities that highlight preservation efforts as part of interpretation and education activities and promotes hands-on learning and outdoor skills. This alternative maximizes sustainable operations and concentrates activities, access, and facilities in distinct locations.

Environmental impacts that would result from implementation of the alternatives are addressed in the GMP/EIS. Impact topics include soils and geology, air quality, water resources, wetlands and floodplains, marine resources, vegetation, wildlife, species of special concern, historic districts and historic structures, archeological resources, museum collections, visitor use and experience, the social and economic environment, transportation, park management, operations, and facilities, and sustainability.

This final GMP/EIS reports on the results of agency and public comments on the draft GMP/EIS, including any changes that may have been made as a result of agency and public comment. The text has been revised in several cases to reflect additions or changes suggested by agencies, organizations or other commenters during review of the public draft, or to update text from the draft GMP/EIS for completeness and accuracy. These changes are shown in the document as strikeouts for deletions and shaded gray for additions.

The final GMP/EIS will be released for a 30-day no-action period. The availability of the final GMP/EIS will be announced to agencies and the public and will be noticed in the *Federal Register.* No sooner than 30 days after the release of the final GMP/EIS, the Northeast Regional Director may sign a record of decision selecting an alternative for implementation as the approved GMP for Gateway. The availability of the signed record of decision will be noticed in the *Federal Register,* after which the NPS would proceed to implement the approved GMP contingent on available funding. By virtue of recording this selection in a record of decision, this alternative will become the park's new general management plan.



Executive Summary

Today, Gateway is at a crossroads and a new vision is necessary to shape the park's future.

It was a bold idea: bring national parks closer to people in cities. Forty years later, that bold idea continues to evolve at Gateway National Recreation Area (Gateway; the park), the country's first urban national recreation area. Gateway was established in 1972 with the dream of bringing a National Park Service (NPS) experience to the New York metropolitan area. In the 21st century, the needs and expectations for a national park experience have changed—and so must Gateway.

Today, Gateway is at a crossroads and a new vision is necessary to shape the park's future. This new vision is found in this ~~Draft~~ Final General Management Plan / Environmental Impact Statement (GMP/EIS). A GMP helps park managers focus on what is most important in carrying out a new 20-year vision for Gateway and the mission of the NPS.

Gateway's first GMP was finished in 1979. Almost 35 years later, the world is a different place, with constantly changing ideas and expectations for leisure services and information. New studies have led to a better understanding of the significance of Gateway's natural and cultural resources and current threats. In addition, the needs of visitors are very different today than they were a generation ago. The U.S. population is growing older and more diverse, children are spending less time outdoors, and technology is bringing rapid changes. ~~Recent events such as Hurricane Sandy have brought~~ The increasing body of scientific information regarding climate change and projections of sea level rise, coupled with recent events such as Hurricane Sandy describe a new reality and urgency to find ways to protect, improve, and sustain the park's natural and cultural resources while still providing a great place to relax and have fun. New opportunities to work cooperatively with New York City have emerged and the value of parks in urban areas to enhance quality of life is finally being recognized.

Gateway needs a new GMP now because new issues and ideas have emerged in recent years that the 1979 GMP does not address because they were not anticipated when the plan was prepared. Many of the 1979 GMP's recommendations were implemented, others are no longer appropriate because of changing conditions and circumstances, and some have not been implemented due to funding limitations. None of the recent NPS policies related to management and planning for all national park units are reflected in the 1979 GMP.

The Planning Area

Gateway covers more than 40 square miles in New York and New Jersey. That is an area nearly twice the size of the island of Manhattan. The park is split into three different areas in Monmouth County, New Jersey, and the New York City boroughs of Brooklyn, Queens, and Staten Island (see figure 1-1).

The legislative boundary for Gateway is 27,025 acres and extends into adjacent waters, including the Atlantic Ocean, Jamaica Bay, Raritan Bay, and Upper and Lower New York Bay. The park manages 21,680 acres of land and waters. An additional 5,345

The legislative boundary for Gateway is 27,025 acres and extends into adjacent waters, including the Atlantic Ocean, Jamaica Bay, Raritan Bay, and Upper and Lower New York Bay.

acres are managed by other federal agencies, owned by New York City, or privately held by entities such as Breezy Point Cooperative, Broad Channel, and Roxbury. The park has three administrative units: the Jamaica Bay Unit, Sandy Hook Unit, and Staten Island Unit. These three distinct geographic areas are linked together by similar types of resources and recreation uses, yet retain distinctive characteristics that make them special.

The Jamaica Bay Unit is the largest of the three units and is one of the largest expanses of open-space in the region, consisting of over 19,000 acres of land, bay and ocean waters within two boroughs of New York; Brooklyn and Queens. The unit includes: Plumb Beach, Floyd Bennett Field, Bergen Beach, Canarsie Pier, Pennsylvania Avenue and Fountain Avenue Parks, Frank Charles Memorial Park, Hamilton Beach, Spring Creek, Jacob Riis Park, Fort Tilden, Breezy Point Tip and the Jamaica Bay Wildlife Refuge in the center of the bay.

The Staten Island Unit encompasses bay waters, shoreline and four areas including Great Kills Park, World War Veterans Park at Miller Field, Fort Wadsworth and Swinburne Island and Hoffman Island in Staten Island, New York.

The Sandy Hook Unit ~~includes~~ encompasses the Fort Hancock and Sandy Hook Proving Ground National Historic Landmark District and natural areas and shorelines adjacent to the Atlantic Ocean and Sandy Hook Bay in Monmouth County, New Jersey.

Planning Challenges

General management planning offers a structured decision-making process that encourages and considers ideas and comments from many different people and groups. Throughout development of the GMP/EIS, the planning team used a variety of scoping techniques to identify the issues related to management of the park, the range of management alternatives that should be considered in the GMP/EIS to address those issues, and the range and nature of impacts that should be used to evaluate and compare alternative management actions. Scoping occurred internally with NPS staff and externally with other public agencies, partner organizations, and interested citizens. The planning challenges identified during the public and internal scoping and analysis stages include the following:

Responding to Climate Change and Sea-Level Rise

Climate change refers to changes occurring in the earth's atmospheric, hydrologic, and oceanic systems, which could alter the landscape, natural and cultural resources, and facilities of Gateway. The issues and potential future threats associated with a changing climate have been considered since the early stages of the GMP/EIS process. Gateway staff worked with academic partners to better understand these issues and how park management would need to adapt in the future. Gateway has been experiencing changes due to frequency and intensity of recent storm events, such as Hurricane Sandy. The majority of the park's natural

and cultural resources are adjacent to the ocean and other water bodies. Some of these places have already experienced increases in storm flooding. The GMP/EIS provides considerations for climate change, and proposes measures for adapting natural and cultural resources, recreation uses and infrastructure.

Preserving Gateway's Heritage

Gateway possesses more than 800 historic buildings, structures, landscapes, and archeological sites with hundreds of additional individual features that contribute to the character of these special places. When Gateway was established in 1972, the historical significance of its buildings, structures, and landscapes was not clearly understood. Many of these inherited buildings and structures were already in poor condition. Repairing, painting, and other maintenance today is a serious challenge given the resources' numbers and current condition as well as competing funding and staff priorities. Currently the museum collections are overcrowded in places that do not meet professional museum standards. This contributes to deterioration of the collections and does not allow for access by staff, students, and scholars for academic research. The GMP/EIS will set priorities for preserving and managing the park's cultural resources in a sustainable manner.

Addressing Marine Resources and Water Quality

Two-thirds of Gateway is covered by water—more than 17,500 acres of bay and oceanic waters that are part of larger systems influenced by land uses and activities taking place outside the park. Previous uses of park lands have left a legacy of impacts on the health and ecology of park natural resources. When the park was founded, saltmarshes had been filled, Jamaica Bay had been dredged, and native forests and vegetation had been covered in impervious surfaces. Despite many years of efforts to improve conditions, water quality is still threatened in all units, especially Jamaica Bay. Many activities in adjacent communities contribute to the problem. The beaches and bays are prime habitats for birds, shellfish, and plants as well as the most popular visitor areas for all types of water-based recreation. Degraded water quality hurts fish and wildlife and results in beach closures, shellfish consumption bans, and unsafe conditions for water activities.

Ocean resources, including natural marine resources and submerged cultural resources, are at risk due to a variety of threats. Natural sediment transport, which affects shoreline and beach dynamics, is affected by activities outside the park boundaries. Most of the park's ocean shoreline is affected by conditions updrift of the park's boundary and the effects of structures at or near the boundary. The presence of engineering structures, both within and external to Gateway, have produced positive and negative results, including erosion and impacts on habitat and navigation channels. The GMP/EIS will provide direction for preserving and managing the natural resources of the park in a sustainable manner and will provide direction for encouraging collaboration and stewardship.

The GMP/EIS will address visitor access to and within the park in order to improve visitor experiences and improve connections between park sites and between park sites and the larger community.

Engaging New Audiences

Gateway does not have a strong identity as a unit of the national park system. This makes it difficult to promote experiences consistent with other national parks, and the park is often confused with city and state facilities. Visitation at Gateway does not reflect the ethnic, racial, or socioeconomic diversity that now characterizes the U.S. population and the communities adjacent to the park. In addition, the boom of electronic technology, especially with children and teens, is changing expectations for the types of activities offered and how the park should provide information and deliver programs. The GMP/EIS will include strategies for promoting a national park experience and engaging new audiences.

Accessing the Park

Access to Gateway is predominantly automobile dependent. Several areas of the park are not conveniently accessible by public transit. This poses a challenge to many visitors, especially lower-income and transit-dependent populations. Visitors are interested in other options for reaching the park, but there are limited formal designated bike or water routes and few parking or docking facilities to support them. Connections from communities in the region to the park are not adequate. There is a need for improved, safe trail connections between park sites and between park sites and communities to provide seamless, safe, direct access alternatives. The GMP/EIS will address visitor access to and within the park in order to improve visitor experiences and improve connections between park sites and between park sites and the larger community.

Providing Appropriate Facilities

Park resources, visitor safety, and visitor experience have suffered because of the lack of adequate operational facilities in appropriate locations. Over the years, many visitors have expressed concerns about park infrastructure being in a state of decline and there is a park-wide demand for more user comforts—shade, playgrounds, benches, bike racks, picnic areas, water fountains, facilities for large family groups, and good food. Although there is a growing interest in water recreation opportunities, there are limited facilities and a need for designated water trails (blueways), lockers, boat rentals, and launch sites. Park maintenance and public safety functions are scattered throughout the park and are often located at sites and facilities that were not intended for such uses or are not in the optimal location. Gateway strives to be a leader in environmental sustainability. However, park day-to-day operations do not always reflect this value. The GMP/EIS will identify strategies for providing high-quality facilities for both visitors and park operations.

Management Alternatives

The GMP/EIS presents three alternatives, compares their impacts and costs, and identifies the preferred alternative. Data used to compare their impacts—or what would happen if each alternative was adopted—are summarized from the detailed environmental impact analysis presented in Chapter 4: Environmental Consequences.

The alternatives include a "no-action alternative" in the National Environmental Policy Act (NEPA), that assumes that no new actions would occur (i.e., the continuation of current management direction). This no-action alternative is alternative A. The GMP/EIS also describes and evaluates two action alternatives: alternatives B and C. Alternative A provides the baseline for comparing the impacts of implementing the action alternatives. A summary of the alternatives is provided below:

The GMP/EIS presents three alternatives, compares their impacts and costs, and identifies the preferred alternative.

Alternative A: No Action

Under alternative A, continuation of current management (no-action alternative), the NPS would continue to manage Gateway's resources and visitor use as it does today, with no major change in management direction. Decisions would be based on existing conditions and available information; there would be no comprehensive planning framework to addresses the full range of contemporary and potential future issues. The park's enabling legislation, the management direction established in the 1979 GMP, the Foundation Document, federal laws, NPS policies, and other approved plans and projects would continue to guide management of resources, visitor use, facilities, and operations.

Recreation and Visitor Experience

Under alternative A, visitor experience would remain segmented, with each of the three units independently serving local residents and visitors at specific locations. Efforts to reopen areas of the park that were damaged by Hurricane Sandy and to provide services and visitor facilities would continue. The ongoing structural assessments and recovery efforts may result in temporary shifts of current management and visitor access. Existing interpretive, educational, and management programs providing a range of services to visitors would continue, adjusting for Hurricane Sandy limitations. Visitors would continue to enjoy a variety of traditional beach-oriented and other recreational activities at open areas.

Gateway would continue to provide comfort stations, lifeguards, food and beverage service, camping, and ferry operations where those services currently exist. Improvements and expansions to trail systems and camping areas would continue under existing management guidelines. Funded projects for additional planning for trails and expanded camping opportunities would continue.

The visitor centers at Sandy Hook, Jamaica Bay Wildlife Refuge, and Floyd Bennett Field would continue to provide orientation, information, interpretive programs, and exhibits and serve as both destinations and points of departure for day visitors, tours, and school groups. Traditional ranger-led activities and curriculum-based educational programs would continue to be available. Current efforts to make more people aware of the presence of the park would continue. Gateway's informational website, exhibits, brochures, and other publications would also be available.

Resource Management

Natural resource management programs would continue, many in partnership with federal, state, and local agencies, academic institutions, and non-governmental organizations (NGOs).

Existing programs would focus on protecting special-status species, monitoring conditions, mitigating external threats, controlling nonnative species, and restoring habitats impacted by manmade structures or human activities.

Historic structures, cultural landscapes and archeological sites would continue to be managed through maintenance and repair where feasible and when funding becomes available. Existing programs providing basic protection to the park's cultural resources would continue to operate in a manner consistent with applicable federal and state laws and NPS policies. Vegetation would continue to be removed from some coastal defense fortifications on a limited basis, while others would continue to decay by natural processes. Many vacant buildings throughout Gateway would continue to deteriorate. The Sandy Hook Lighthouse, Battery Weed, and select fundamental coastal defense and maritime structures would be preserved. Museum collections and archives would continue to be moved from Sandy Hook and consolidated with collections currently maintained in their current location at Fort Wadsworth.

Access and Transportation

Existing operation and transportation infrastructure would be maintained at current locations. Maintenance functions, equipment, and facilities damaged as a result of Hurricane Sandy would continue to be evaluated and possible replacement and relocation explored. Gateway visitors would continue to be automobile dependent and people without cars would continue to be reliant on limited direct bus and ferry service.

Alternative B: Discovering Gateway - NPS Preferred Alternative

Concept

This alternative provides the widest range of activities and most recreation opportunities in dispersed locations throughout the park. New connections would be forged with park lands and communities adjacent and nearby Gateway. This alternative offers the most instructional programming and skills development and draws people into the park to increase awareness and enjoyment of Gateway's historic resources and the natural environment. More convenient and affordable park access is developed through trail connections, bicycle infrastructure, public transit, and waterborne transportation. This alternative prioritizes joint management and operations for visitor services, orientation, programs, and facilities with New York City and other partners.

Jamaica Bay Unit

Recreation and Visitor Experience

The Jamaica Bay Unit would offer an unmatched variety of recreational opportunities. In partnership with New York City and other groups, the NPS would attract neighborhood,

regional and distant visitors with new and improved amenities and recreation facilities (e.g., trails, camp sites); more community-based recreation such as sports leagues and event spaces; and enhanced interpretive and environmental educational programming. With development of water trails, water skills programming, equipment rentals, and the expansion of beach access, the Jamaica Bay Unit would be established as a popular recreation destination for water-based activities. The combination of improved transportation infrastructure and widespread outreach and promotion, would ensure that these new opportunities for outdoor recreation, learning and skill building are accessible and popular among diverse audiences.

Under this alternative, the park lands would provide opportunities for youth and families to experience nature and to develop the skills and knowledge that will foster a lifelong stewardship and enjoyment of the outdoors. New facilities at Fort Tilden and Bergen Beach areas including trails, overlooks, viewing blinds, kayak launch sites, outdoor classrooms and campsites would provide more convenient access to natural areas and facilitate the exploration of Gateway's varied natural environments. These resource-based experiences would be complemented by opportunities to experience and learn about history and the park's significance through guided interpretive activities, interpretive media, and educational programming.

New multiple day experiences would be developed and promoted on NPS and New York City park lands throughout Jamaica Bay. A variety of camping options from special programs in unique locations to a variety of tent, structural and recreational vehicle (RV) sites would enhance the national park experience. Lodging accommodations in historic buildings and associated support areas would be explored.

Resource Management

Partners sharing the NPS vision for a healthy and restored Jamaica Bay are numerous. In both action alternatives, NPS would continue cultivating and leveraging partnerships to accomplish natural resource objectives. Improving water quality within Jamaica Bay would be prioritized along with restoring degraded stretches of coastal habitats. Natural resource protection and restoration efforts in the Jamaica Bay Unit would focus on softening hardened coastal edges, restoring wetland and coastal habitats, and creating additional freshwater wetlands. Increased use would be balanced with additional monitoring and management of wildlife and habitats. NPS would work closely with New York City and other landowners to build the resiliency of coastal habitat and to improve conditions along the entire Rockaway coastline. Together the agencies would produce a holistic shoreline management plan that would help guide recovery efforts and future uses and development.

Historic structures and landscapes would be stabilized, and preserved for recreation, visitor services, education, and sustainable energy. Creative solutions would be found to continue use and adapt to future flooding, storms and other climate change related events. Mobile technology and other innovative media would enrich communication about the park land's history and significance.

This alternative offers the most instructional programming and skills development and draws people into the park to increase awareness and enjoyment of Gateway's historic resources and the natural environment.

The cultural landscape within the Fort Hancock area would be maintained. Areas within the cultural landscape would be rehabilitated to function as flexible open space areas for relaxation, gatherings, picnics, and community events.

Access and Transportation

Access to and within Jamaica Bay would be made more affordable and convenient through improved bike infrastructure, public transportation, ferry service and park shuttles. In partnership with its New York City partners, NPS would complete and expand the Jamaica Bay Greenway and trail network. The Jamaica Bay park lands and surrounding communities would also be connected via a system of land-based shuttles as well as water trails, water taxis and ferry service.

Sandy Hook Unit

Recreation and Visitor Experience

Sandy Hook would remain a popular beach recreation destination where visitors would find many opportunities to have fun and enjoy the natural environment. A variety of natural immersion experiences would be created to increase visitor awareness and enjoyment of the natural environments including nature study, wildlife viewing, camping, and instructional programming. New and expanded trails, boating launch sites, camping facilities and interpretive programs would facilitate the coastal experience. Connections with neighboring communities including orientation, land and water trail system, and linkages to related interpretive sites would provide for a richer experience at Sandy Hook. Fort Hancock would be transformed into a bustling center of activity and a popular overnight destination. In this alternative, NPS would consider the widest variety of potential adaptive reuses for the Fort Hancock buildings ~~ranging from~~ such as, but not limited to, lodging to restaurants, conference space and offices.

Resource Management

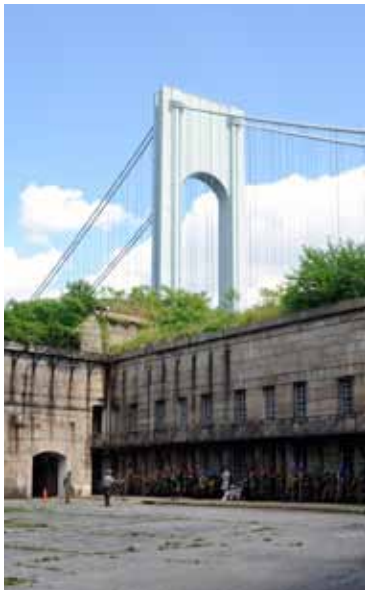
The cultural landscape within the Fort Hancock area would be maintained. Areas within the cultural landscape would be rehabilitated to function as flexible open space areas for relaxation, gatherings, picnics, and community events. The Nike Missile Launch and Radar Site would be stabilized and interpreted. New opportunities for guided and self-guided exploration of the area would be created. Batteries Potter, Gunnison, McCook and Reynolds (Mortar) would be preserved and interpreted through guided tours and/or interpretive media. Additional batteries within the Fort Hancock area would be stabilized, opened to visitor access and interpreted, including off site through digital media and/or exhibits. The Sandy Hook Lighthouse and Spermeceti Cove Life Saving Station would be preserved.

Habitat conditions of the forest, shrub, and wetland habitats would be improved. Current natural resource management practices would be maintained and protection, research, and monitoring of sensitive habitat areas like the beaches on the northern tip and the maritime forest would be increased. The mosaic of coastal habitats would provide unique opportunities for experiencing and learning about natural systems and native plant communities.

Access and Transportation

A variety of transportation systems would be developed to make Fort Hancock and the entire Sandy Hook peninsula more convenient to access. Ferry service would be expanded to include

summer weekdays, shoulder seasons and special events. Opportunities to provide private/transient water access and dockage at Sandy Hook would also be evaluated. Opportunities would be explored with partners to extend public transit service into Sandy Hook and initiate a shuttle system to connect adjacent communities. Bike access would be encouraged to/from and within Sandy Hook, with bike rental stations at parking facilities near the park entrance and within the park.



Staten Island Unit

Recreation and Visitor Experience

Improved trailheads and more miles of trail within and between the Staten Island sites as well as picnic areas, camping facilities, and interpreted historic sites would create many more recreation opportunities. Opportunities to access and experience Gateway waters would also be increased. Water trails, interpretive boat tours, launch sites, and expanded beach and fishing access would encourage exploration of the coastline and New York Bay. These water trails and guided tours would facilitate paddling from Fort Wadsworth out to Hoffman and Swinburne islands and/or down the coast to Miller Field and Great Kills Park. The NPS would evaluate the possibility of developing overnight accommodations and expand the locations and types of camping available throughout the Staten Island Unit. Comfort stations, interpretive programming and media related to the fundamental resources would be increased, allowing for a more in-depth and richer experience of the cultural defense resources and cultural landscapes.

Resource Management

Battery Weed and Fort Tompkins would be preserved and open to more regular visitor use. Public access to both forts would be increased and interpretive programming of these resources would be expanded. The Battery Weed seawall would be repaired and fortified to protect the resource from storm surges. Additional batteries would be stabilized and their unique features incorporated into the recreational and interpretive trail system. The character-defining features of Mont Sec and New York Avenue would be preserved and both avenues would be incorporated into the visitor experience of Fort Wadsworth through improved wayfinding signage and interpretation.

Current natural resource practices would be maintained including controlling invasives, planting trees and monitoring beach erosion. NPS would work with neighbors and partners to implement solutions for improving resiliency of beach/dune habitat along the Staten Island coastline. Natural resource protection of offshore habitats would be maintained. In cooperation with partners, NPS would take recommended measures to improve water quality within the bay. Hoffman and Swinburne islands would remain natural areas. The wildlife on the island and the islands' habitat value would be monitored and study.

Access and Transportation

Improved public transportation and an expanded greenway, as well as, shuttles between the sites would make access more convenient. Also, bike infrastructure would be developed throughout the unit including a bike-sharing system, maps, and convenient bike parking to

In areas throughout the Jamaica Bay Unit, visitors would find open, protected natural areas.

encourage more bike use at the parks and provide connections with other Staten Island trail systems. A shuttle system linking the Staten Island Unit park sites with the Ferry Terminal at Saint George would be considered as a means of promoting sustainable access and a first point of visitor orientation to the Staten Island Unit from those arriving via the Staten Island Ferry.

Alternative C: Experiencing Preserved Places

Concept

This alternative provides the most opportunities for independent exploration and "wild" experiences that immerse visitors into natural areas and historic sites and landscapes. This alternative increases the visibility, enjoyment, and protection of coastal resources and focuses resource management on beach and dune ecosystems and coastal defense landscapes. New recreational programming emphasizes low-impact activities that highlight preservation efforts as part of interpretation and education activities and promotes hands-on learning and outdoor skills. This alternative maximizes sustainable operations and concentrates activities, access, and facilities in distinct locations.

Jamaica Bay Unit

Recreation and Visitor Experience

In areas throughout the Jamaica Bay Unit, visitors would find open, protected natural areas. In these places visitors can retreat into natural environments; experience the sounds, smells, and views; and learn about healthy habitat remnants that are unique within the New York City metropolitan area. Clusters of recreation facility development throughout the unit's park lands including trail networks, campgrounds, and observation platforms would encourage independent discovery and facilitate outdoor recreation. All new facilities would be designed to be "light on the land" and minimize impacts on natural and cultural resources.

This alternative would focus on engaging visitors, communities, and partners in participatory science, education, and natural resource stewardship while creating opportunities for self-guided exploration of the area's natural environmental and historic settings. The NPS and partner stewardship programming would harness volunteer energy and work toward improving water quality and habitat conditions throughout Jamaica Bay.

Resource Management

Under alternative C, natural resource restoration projects would be widespread throughout the Jamaica Bay Unit. Ongoing restoration, research, and environmental protection projects would be broadened, expedited and strengthened by outside funding, and the involvement of additional partners and the broader scientific community. This more robust natural resource management would be complemented by expanded outreach, environmental education programming, citizen science, and volunteer stewardship projects. In addition, increased monitoring, research, volunteer programs, and collaboration with regional partners would continue to address water quality issues, habitat restoration, and stewardship.

In alternative C, the protection, preservation, and interpretation of the unit's coastal defense fortifications, aviation structures, and cultural landscapes would be substantially increased. The aviation history at Floyd Bennett Field would be preserved and showcased. On the Rockaway Peninsula, preservation and interpretation of Fort Tilden's cultural landscape, batteries, the Nike Missile site, and the Jacob Riis Bathhouse would round out the predominantly natural resource-based recreational experiences found throughout the unit and result in richer communication about the area's history. Preservation and interpretation projects at Fort Tilden's Battery Harris and the Nike Missile site would lead to improved access to the fundamental cultural resources and enriched communication about the site's coastal defense history.

In alternative C, the protection, preservation, and interpretation of the unit's coastal defense fortifications, aviation structures, and cultural landscapes would be substantially increased.

Access and Transportation

Similar to alternative B, but with less of an emphasis on waterborne transportation, management would make accessing the Jamaica Bay units more convenient by establishing an interconnected system of trails and greenways, introducing bike-sharing stations, improving shuttle services between park lands and linking to public transit stations. A transportation hub would be created at Floyd Bennett Field to improve access and circulation and to promote multi-modal options.

Sandy Hook Unit

Recreation and Visitor Experience

Sandy Hook's beaches, forests, wetlands, and waters would serve as living laboratories where visitors and volunteers would be engaged in participatory science, education and stewardship. These programs would nurture personal connections with the coastal environment and inspire greater appreciation for the park's historic significance. Recreational uses would be maintained along the beach and bay. With its lighthouse, lifesaving station, and long coastline, Sandy Hook would emerge as Gateway's focal point for maritime heritage interpretation. The preservation of these iconic structures along with expanded programming, activities, and interpretive media would engage visitors in the park's maritime story.

Resource Management

Protection and restoration of the beach dune community as well as forest, shrub and wetland habitats at Sandy Hook would be increased in this alternative. To reduce impacts on these sensitive and rare habitats, access would be tightly controlled and restricted in some cases. Aggressive control of invasive species, strengthening healthy communities and repairing beach erosion would be management priorities. Additionally, research and monitoring of the unit's habitats would be increased. Historic preservation efforts would be most widespread in this alternative with the largest number of projects to stabilize, preserve, and interpret both historic structures and cultural landscapes. At Sandy Hook, historic preservation training programs would be offered and people would find opportunities to engage in volunteer stewardship projects. Students, partners, and volunteers trained at Sandy Hook would be mobilized to participate in historic resource stewardship projects throughout Gateway.

Access and Transportation

Similar to alternative B, a variety of transportation systems would be developed to make Fort Hancock and the entire Sandy Hook peninsula more convenient to access. Ferry service would be expanded to include summer weekdays, shoulder seasons and special events. Opportunities to provide private/transient water access and dockage at Sandy Hook would also be evaluated. Opportunities would be explored with partners to extend public transit service into Sandy Hook and initiate a shuttle system to connect adjacent communities. Bike access would be encouraged to/from and within Sandy Hook, with bike rental stations at parking facilities near the park entrance and within the park.

Staten Island Unit

Recreation and Visitor Experience

The Staten Island Unit would provide opportunities to experience nature, explore Fort Wadsworth's coastal defense heritage, and recreate in historic and natural settings. Park managers would preserve historic structures and landscapes that tell the story of continuous military and civilian use of the fort and tie thematically with other parks and historic sites within New York Harbor. Recreational uses throughout the Staten Island unit would be maintained, and enriched by expanded interpretive and educational programming. Participatory cultural resource stewardship programming in which partners and volunteers would engage in the hands-on preservation of the coastal defense structures would be introduced at Fort Wadsworth. Likewise, Great Kills Park would offer new opportunities for nature study, environmental educational, and participatory natural stewardship programming.

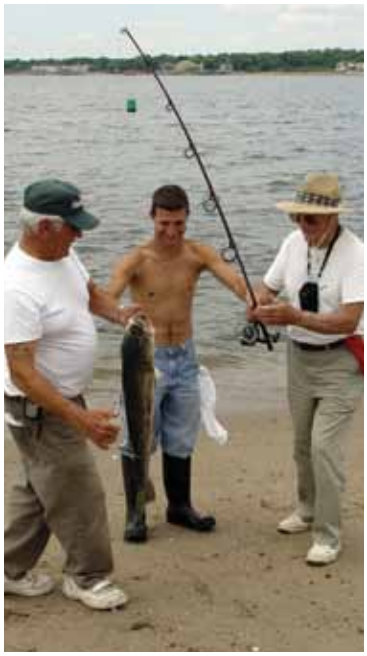
Resource Management

Natural resource stewardship would be prioritized at the Staten Island sites. The NPS would focus resource protection efforts on improving beach/dune habitat at the unit and working with neighbors and partners to expand and care for the coastal stretch of protected wetlands and beach/dune habitat. Historic preservation at Fort Wadsworth would be a management priority and preservation trainings and workshops would enable volunteers and partners to contribute to the preservation of Fort Tompkins and select Endicott-era batteries. In this alternative, more of Fort Tompkins would be opened, preserved, and interpreted. Also, interpretation of Fort Tompkins, Battery Weed, and the Endicott/Taft-era batteries would be enhanced through a Coastal Defense Trail. The trail would wind through and among the historic structures offering excellent views and interpretive media along the route.

Access and Transportation

Similar to alternative B, improved public transportation and an expanded greenway, as well as, shuttles between the sites would make access more convenient. In addition, bike infrastructure would be developed throughout the unit, including a bike-sharing system, maps, and convenient bike parking, to encourage more bike use at the sites and provide convenient connections with other Staten Island trail systems.

Affected Environment and Environmental Consequences of the Alternatives



The environmental impact statement portion of this GMP describes the affected natural, cultural, scenic, and socioeconomic environment within and near the park and the anticipated impacts on the environment associated with the three GMP alternatives. Impact topics include soils and geology, air quality, water resources, wetlands and floodplains, marine resources, vegetation, wildlife, species of special concern, historic districts and historic structures, archeological resources, museum collections, visitor use and experience, the social and economic environment, transportation, park management, operations, and facilities, and sustainability. Climate change was analyzed as part of cumulative impacts for each topic.

Determining environmental consequences included identifying the regulations and polices applicable to each impact topic, defining the methods used to conduct the analysis, and defining relative terms to qualify impacts for each impact topic. Analysis were performed to evaluate impacts within the park and in nearby communities and on a more regional scale in terms of cumulative impacts. Analyses involved comparing conditions that would occur with changes in management (Alternatives B and C) to conditions that would occur if current management practices continued (Alternative A). The results are presented in Table 2-12 of the GMP/EIS and are summarized for selected impact topics below.

Soils and Geology

No impact on geology from any action in any alternative is expected. Current issues with park soils include the extensive use of artificial fill material to fill in marshes for development; contamination of some of these artificial soils and of benthic soils such as those in Jamaica Bay from pollutants and waste streams; reduced infiltration related to hardened trails, roads, parking lots, and facilities; and the interruption of natural offshore sediment transport processes that supply sand for park beaches. While both alternatives B and C would increase visitor and recreation facilities, those in alternative B are more permanent and therefore more likely to add adverse impacts by further reducing infiltration from hardened surfaces or loss of soils through excavating, grading and/or erosion. These impacts are small in scale and not considered significant, at least in part because soil itself is not named as a fundamental or unique resource at the park. Because soils are fills, fly ash and rubble at Floyd Bennett Field, the area where the most extensive development is planned, excavating, filling or paving over them would result in no adverse impacts to natural soils. Both action alternatives include provisions to discuss with neighboring landowners the option of removing groins, jetties, breakwaters and other impediments to natural sand transport at several park sites, including those along the Rockaway barrier spit (Jacob Riis Park, Fort Tilden, and Breezy Point) and the Staten Island coast (especially at Great Kills Park). If successful, this action has the potential for significant and widespread beneficial impacts to beach and dune systems, which are named as fundamental to the park purpose and significance, as well as intertidal areas, mudflats and

even more inland soils. Both alternatives also include creating 100+ acres of Floyd Bennett Field to natural conditions, including saltmarsh, freshwater marsh, and open water areas. Floyd Bennett Field was wetland and saltmarsh islands before it was filled; returning it to this state would offer substantial and potentially significant benefits for soils as an integral part of the natural area at this park site, named as a fundamental resource at Gateway.

Air Quality

The park is located in an air basin shared with a highly urbanized area. Of the pollutants regulated by the Clean Air Act, the basin is out of compliance for ozone and small particulates. The NPS also measures and assesses ozone, as well as acid deposition and visibility at parks, and has determined that air quality for these three factors at Gateway is not meeting recommended desired conditions. While park-related emissions come from both day-to-day operations and from mobile sources such as cars driven by visitors, the contributions are imperceptible compared to emissions from all mobile and stationary sources affecting the air basin. The park also currently plants trees and is making efforts to increase its energy efficiency, actions that reduce its greenhouse gas emissions. Both action alternatives would seek to reduce emissions from mobile sources by increasing alternative and public transportation options both to access the park and move between park sites, as well as by adopting measures such as purchase of renewable energy for day-to-day operations that would reduce greenhouse gas emissions. While this would be a substantial and widespread benefit compared to the no-action alternative, it is an imperceptible contributing benefit to the air basin and not likely to be significant. Additional benefits from both alternatives include the use of one or both of the former landfill sites at Pennsylvania Avenue and Fountain Avenue to ~~generate landfill sites to~~ generate renewable energy. In alternative C, a possible anaerobic digester or landfill methane recovery project could reduce emissions of greenhouse gases. Each of these does greatly reduce or offset emissions from sources at the park, although the overall the effect in the air basin is imperceptible. Because of the shared nature of the air basin and the relative inability to substantially influence air quality in it and because air quality is not a named fundamental resource at Gateway, benefits are not considered significant. Construction related to adding visitor amenities or restoring structures could result in some increases in some short-term emissions from heavy equipment with temporary adverse impacts to air quality in either alternative. Impacts would not be significant and would be less in alternative C than alternative B.

Water Resources

Groundwater and surface water in or feeding the park has been diverted and used for drinking water, commercial and industrial operations and historically for agriculture. Most freshwater sources in the watersheds surrounding the park have been filled, diverted into the storm sewer system, or altered by channelization. Hydrology in the surrounding marine or estuarine environments including Raritan Bay and Jamaica Bay has been altered by deep dredging and other engineering modifications. Water quality in Raritan and Sandy Hook bays is better than in Jamaica Bay because these areas receive freshwater from the Hudson and Raritan Rivers. Freshwater input to Jamaica Bay is nearly completely composed of

effluent from wastewater treatment plans and the combined stormwater/sewer overflow. Collaborative efforts by the NPS and the New York City Department of Environmental Protection (NYCDEP) to improve water quality and hydrology in Jamaica Bay have had substantial benefits that would continue in alternative A. However, in alternatives B and C, this collaboration is increased to include many new partners in collaborative research and stewardship of water resources. Efforts include shoreline protection and erosion control, restoration of wetlands and other natural habitats and holistic management of water resources and water quality. These actions would result in significant beneficial impacts to water resources, particularly those in Jamaica Bay, the waters (submerged areas) of which are a named fundamental resource at the park. Construction related to adding visitor amenities or restoring structures could result in some increases in erosion and turbidity, with short-term adverse impacts on water resources in either alternative.

Wetlands, Floodplains and Flooding

Saltmarsh, estuarine, and freshwater wetlands occur at the park. Although the area in which the park is located was once much more abundantly covered in wetlands, many have been filled and developed, their water supplies channelized, infested by non-native invasive species or polluted. At least 95 percent of freshwater wetlands have been lost. The park and other agencies, primarily the New York Department of Environmental Conservation (NYDEC), work together to restore saltmarsh habitat in Jamaica Bay and this effort has and would continue to have significant benefits for wetlands under the no-action alternative. Increasing this collaborative effort in alternatives B and C to include additional agency, non-governmental organizations, academia, and private partners and expanding its scope to include combined research on restoration and joint stewardship of Jamaica Bay marshes and water quality would result in significant additional benefits for wetlands at the park.

Continued efforts to remove *Phragmites*, an invasive form of the common reed, from wetland environments would also result in benefits under all alternatives, although these efforts would intensity with additional benefits under alternatives B and C. Both action alternatives also would result in the restoration of 100+ acres of saltmarsh, freshwater wetland, and open water habitat at Floyd Bennett Field, although alternative C proposes a larger area for this purpose than alternative B. Alternatives B and C also include holistic planning at the park to determine how best to restore the freshwater West Pond, which was breached during Hurricane Sandy, as well as how additional freshwater wetlands could be created at park sites. Both alternatives include discussions with neighboring landowners in an effort to remove impediments to natural sand transport. If successful, new wetland habitats could be created, this action would help reverse erosion of shorelines at several park sites. Each of these actions would be highly beneficial for wetlands and could provide significant positive impacts. Alternatives B and C differ in the degree to which they would protect fringing wetlands or remove invasive species in wetland environments at smaller park sites, with alternative C offering more intense efforts and greater benefits.

Because the park is both coastal and low in elevation, it is susceptible to flooding from summer and winter storms, including tropical systems, hurricanes, and nor'easter cyclones. Although these more extreme storms are better known, average storms are substantially more

Because the park is both coastal and low in elevation, it is susceptible to flooding from summer and winter storms, including tropical systems, hurricanes, and nor'easter cyclones.

common. In analyzing storm surge in the New York/northern New Jersey area over a nearly 50-year period (1959 to 2007), researchers found 253 data points for storms where the surge varied between 0.5 and 0.6 meter and only 4 where storm surge was greater than 1.5 meters. However, with the recent damaging Hurricanes Irene and Sandy and the possibility of greater frequency and intensity of storms as climate change accelerates, the focus of the analysis for flooding is on the impact of extreme storms. The park has many buildings, including important historic structures that lie very near the water and are relatively unprotected from wind and waves. Wider beaches, dunes, larger vegetation, or wave attenuation are examples of protection that is largely absent. In the absence of natural sand transport, the park does use beach nourishment at some sites, and is in the process of creating more permanent solutions at Plumb Beach and Sandy Hook to ensure that sand is available. As noted above, alternatives B and C include discussions with neighboring landowners to remove impediments to natural sand transport at several park locations. If successful, this could restore beaches and dunes, which could in turn stabilize over time as they become vegetated with native species. This could be a significant benefit in reducing the impact of strong coastal flooding. Both action alternatives also include plans to restore or rehabilitate some buildings and infrastructure as well as adding new facilities or amenities in the coastal zone, although alternative C relies on removable structures at Fort Tilden and Sandy Hook to add recreational opportunities at these sites. To the extent these efforts maintain fundamental or otherwise important park assets in an area where they are subject to repeated damage and loss from coastal flooding, impacts are adverse and potentially significant. Increasing protection efforts and reducing the permanence of developed facilities in alternative C would lower the risk and intensity of impact, although it could still be significant. The NPS would also evaluate the risk of making future investments in existing facilities or adding new infrastructure within coastal flood or storm surge zones and may choose not to go forward with these changes if it is too high, reducing the possibility of significant adverse impacts from flooding.

Marine Resources

Marine resources are defined in the GMP/EIS as including those in the oceans or brackish bays, as well as intertidal beaches and foredunes. The focus of this section is on marine systems, rather than individual elements such as vegetation, soils, or wildlife. The park has used borrow areas in New York Bay to provide sand for its nourishment efforts. Although dredging sand from the bottom of the bay does affect marine wildlife, environmental documents prepared for borrow efforts indicate the impacts are not significant. At the park, beach nourishment has had localized beneficial impacts on intertidal or beach wildlife and vegetation. Beach wildlife at the park includes several listed species, which have been and would continue to be protected by park management to close nesting sites or fence plant growing areas to visitors. Although these actions protect elements of the marine system, several components such as natural sediment supply or undisturbed and complete habitat are missing. For this reason, benefits to the marine systems are not considered significant under alternative A. Planned development in alternatives B and C at some park sites would have adverse impacts to components of these marine systems, particularly from increased visitor use. Monitoring and managing visitor use to avoid rare or integral components of the beach and dune communities would mitigate these impacts, which are not likely to be significant. Substantial and potentially significant localized benefits to mudflat or other intertidal

marine systems would come from the increased coordination and application of research to Jamaica Bay common to both action alternatives, and to beach and foredune communities from efforts to holistically manage park sites along the Rockaway Peninsula to improve the resiliency of coastal resources, and primarily from the possible return of natural sand transport processes to several park sites. add after sites. Coordinated interagency planning to protect bay shorelines from erosion and sensitive marine aquatic life from overuse by visitors on foot or in boats would also be beneficial. Localized benefits relative to alternative C from increasing monitoring and protection of dunes at Sandy Hook could be substantial for beach or dune resources.

Vegetation

Issues for vegetation under current management include trampling by visitors, such as from off-trail use at more inland sites and of dune, wetland, and beach vegetation along the coasts. Conversely, park management includes keeping some areas closed to maintain them in a relatively undisturbed condition. These sites include Breezy Point Tip and northern Sandy Hook, the sites of several rare vegetation associations. Gateway also conducts invasive species removal and native species planting at several park sites, with benefits to all treated vegetative communities. Pollution of saltmarsh vegetation at Jamaica Bay is described in the wetlands and water sections and impacts on beach and dune vegetation from the interruption of natural offshore sediment processes analyzed under marine resources. Increasing the scope and array of partners to jointly research and restore saltmarsh at Jamaica Bay, creating freshwater wetlands and saltmarsh habitat at Floyd Bennett Field, and holistically planning to create freshwater wetlands where West Pond once stood and across the park all have the potential for significant beneficial impacts on wetland vegetation at the park in either alternative B or C. Efforts to remove impediments to natural sand transport would have substantial localized benefits for dune and beach vegetation if they are successful. Development of new facilities in several park sites could adversely affect vegetation, and in particular imperiled vegetation associations such as those at Fort Tilden or the bay side of Sandy Hook in alternative B. These impacts would be minimized both by a lesser degree of development with fewer anticipated visitors and by the park's commitment to controlling erosion and additional efforts to restore beach, dune, and upland associations at several park sites in alternative C. Additionally, all alternatives include restricted access to the vast majority of the northern part of Sandy Hook, seasonal restrictions on any beach camping and application of the protective Sensitive Resource subzone on the shoreline of Spermaceti Cove on the bay side of the Hook. ~~Additional restrictions to areas where rare or sensitive species or associations grow would also provide benefits to a greater degree in alternative C than A or B.~~

Adverse effects for wildlife under current management include human disturbance and the removal of habitat for park operations or facilities.

Wildlife

Adverse effects for wildlife under current management include human disturbance and the removal of habitat for park operations or facilities. Benefits include closures and restrictions on access where sensitive species nest and maintenance of large habitats such as through beach nourishment or mowing of a 140-acre grassland at Floyd Bennett Field. These efforts provide substantial benefits for many species of wildlife, particularly those that nest on saltmarsh and wooded islands in Jamaica Bay (closed to the public), listed shorebirds, and

associated beach wildlife and grassland nesting birds. Because freshwater wetlands were once an integral part of the ecosystem in the region but are now ~~not~~ quite rare, holistic planning to create freshwater wetlands at several park sites, including West Pond, as well as the creation of built freshwater wetlands at Floyd Bennett Field as part of the wetlands center in both alternatives B and C could result in significant localized benefits for freshwater-dependent wildlife species. Saltmarsh-dependent wildlife would likely experience similar significant benefits from creating saltmarsh at Floyd Bennett Field and the expanded and intensified collaborative research and management of Jamaica Bay habitats in either action alternative. Additional localized benefits from continuing to manage existing natural areas at Great Kills Park, northern Sandy Hook, and Breezy Point Tip, and from the possible restoration of natural sand transport processes at Rockaway Peninsula and Staten Island park sites are also common to both action alternatives. Substantial facility development and increased visitor use in Floyd Bennett Field and Fort Tilden in alternative B, as well as at Sandy Hook and at the newly planted Pennsylvania Avenue and Fountain Avenue parks in the Jamaica Bay Unit, would have the potential for adverse localized impacts on wildlife. This is also true of allowing visitors under alternative B at Canarsie Pol, Big Egg Island, and Hoffman Island, where nesting birds or other wildlife could be disturbed by visitors in boats or on foot, with possible substantial localized adverse impacts on energy reserves or nesting success. The development of facilities and amenities at Sandy Hook under alternative B could adversely affect wildlife by removing habitat and bringing additional visitors and human disturbance. This is true of planned changes on both the bay and ocean side; those on the ocean side could particularly affect feeding or nesting rare shorebirds. Following public comment and consultation under Section 7 of the Endangered Species Act, the park has now broadened the area protected by the Sensitive Resources Subzone to include the Jamaica Bay islands, Hoffman Island and the vast majority of the north end of Sandy Hook and the shoreline of Spermaceti Cove under alternative B. This action would continue existing benefits to wildlife in these areas and reduce impacts from access so that they are comparable to alternative C. While alternative C also proposes development at park sites including Fort Tilden and Floyd Bennett Field ~~Sandy Hook,~~ it is far less extensive and permanent than in alternative B and impacts on wildlife would be less severe.

Species of Special Concern

Known nesting areas or other habitats used by listed species or species of management concern are protected through closures, fences, buffers, and other means. These efforts have likely had substantial or even significant benefits for these species, and evidenced by the presence of breeding populations of piping plovers, least terns, common terns, osprey, terrapins and horseshoe crabs and healthy reproducing seabeach amaranth, seabeach knotweed, seabeach evening-primrose, and other plants of special concern. Beneficial impacts to listed species or species of management concern from actions common to alternatives B and C would come from restoring natural sand transport processes, creating wetland or open water habitat, working with partners to research and apply results to create saltmarsh habitat and restore water quality, maintaining West Pond as a saltmarsh environment, mowing to maintain an existing large grassland, and continuing restrictions and protection of listed species through fencing, buffers, and closures. Restoring habitat and protecting listed species from disturbance or direct loss would have significant benefits. Continuing visitor use in any alternative could in some cases be preventing use of otherwise suitable habitat, and

visitors not respecting closures could reduce nesting success, trample nesting sites or listed plants or otherwise cause substantial localized adverse impacts. Adding visitor amenities and programming would increase the potential for this kind of adverse impact in both action alternatives, although to a lesser extent in C than B. Opening marsh and select wooded islands in Jamaica Bay ~~and at Hoffman Island~~ to public use as proposed in alternative B would have the potential for substantial adverse impacts to state-listed nesting herons and other rare wildlife.

Cultural Resources – Historic Districts and Structures

With limited resources and no decisions regarding which historic structures or districts to prioritize, continuing current management is likely to result in the widespread degradation and loss of fundamental contributing resources and structures, with significant adverse impacts on both historic structures and districts. Both action alternatives would change this by prioritizing historic structures and districts for restoration and rehabilitation, and allowing non-prioritized structures and districts to deteriorate over time as part of a designated Ruins Subzone. This approach would reduce adverse impacts of the no-action alternative. Both action alternatives include measures to mitigate impacts ongoing to fundamental resources now, such as removing invasive vegetation, stabilization of some, rehabilitation and reuse of others, and protection of some structures from the threat of future storm surges. Under the action alternatives, decisions regarding the treatment of cultural resources will be guided by climate change strategies including minimizing major investments along coastal flood and storm surge zones and the implementation of risk evaluations (cost/benefit) for cultural resources within flood zones categories. Where districts in the Ruins Subzone will lose fundamental contributing resources, an adverse, significant, and permanent impact would occur. The loss of individual historic structures in the Ruins Subzone would be substantial, adverse, and permanent, but would not be significant. Many historic structures in the Ruins Subzone share physical and historical commonalities with other associated historic structures which will be maintained, stabilized and preserved, thus retaining the park's ability to impart important themes. Although both alternative B and alternative C would result in significant adverse impacts from these losses, they would be less extensive and severe than under the no-action alternative. Both action alternatives would preserve fundamental historic resources located in Fort Wadsworth Historic District (Battery Weed, Fort Tompkins, coastal batteries), Fort Hancock and Sandy Hook Proving Ground National Historic Landmark District (coastal batteries, Sandy Hook Lighthouse, Spermaceti Cove Life Saving Station, parade ground), and Fort Tilden Historic District (parade ground). Alternative B would also stabilize important resources at Miller Army Airfield Historic District, Breezy Point Surf Club Historic District, and Silver Gull Beach Club Historic District, where alternative C would preserve the cultural landscape at Floyd Bennett Field and stabilize Hangar 38 and the Elm Tree Light (Miller Field), as well as the cabanas at Breezy Point Surf Club. When compared to alternative B, alternative C provides for additional and enhanced cultural resource preservation treatment for historic districts, structures, and landscapes (e.g., Fort Hancock, Fort Wadsworth, Floyd Bennett Field, Jacob Riis Park).

Alternatives B and C both anticipate finding a suitable and sufficient archival facility that meets standards and guidelines for housing the entire Gateway museum collection, a potentially significant beneficial impact.

Both action alternatives would improve access to Gateway and between park sites by increasing bike lanes and pedestrian walkways, as well as hubs that offer public transportation options. This combined with increased facilities and recreation options would increase visitor use, with associated social and economic benefits in access, spending, and employment.

Cultural Resources – Archeological Resources

Adverse impacts on archeological resources come from walking, grading, or excavating for new buildings or infrastructure and other ground-disturbing activities such as invasive species removal or planting trees. Removing impervious surfaces, re-building structures lost/damaged in Hurricane Sandy, allowing historic structures to decay/deteriorate naturally, and landscape modifications to protect some historic structures from further storm threats can also result in impacts to buried resources. To the extent that visitor use is permitted at park sites, adverse impacts on archeological resources are possible. Both action alternatives would increase access and recreational activities by adding trails, programming, and development such as pads for camping or concessions. Although grading and excavating could uncover archeological resources, an adverse impact, mitigation (such as stopping work until the site is surveyed and preserving any artifacts discovered) could help the park expand its knowledge about cultural resources in the area. Impacts from both action alternatives would be similar.

Cultural Resources – Museum Collections

The museum collection for the park is housed at both Fort Wadsworth and Fort Hancock. The collection at Fort Hancock was judged to be at risk during Hurricane Sandy and moved to Fort Wadsworth; crowding has exacerbated an already substandard situation at Fort Wadsworth as a result. Continuing to house both collections without improvements could result in substantial or even significant adverse impacts in the long term. Alternatives B and C both anticipate finding a suitable and sufficient facility that meets standards and guidelines for housing the entire Gateway museum collection, a potentially significant beneficial impact.

Visitor Use and Experience

Current management offers visitors a variety of resource-dependent visitor opportunities and experiences, including extensive beaches and recreational options. Under both action alternatives, the visitor experience would be improved and the amount and variety of recreational opportunities expanded, with possible significant benefits for Gateway visitors. Adverse impacts common to both alternatives, such as increased human noise and night lighting, would only affect a small number of users and are not considered significant. The variety of recreational opportunities proposed specific to alternative B, along with new and enhanced recreation facilities and visitor spaces and the purposeful effort to engage a more diverse audience, would have additional benefits for the visitor experience at Gateway beyond those common to both action alternatives. Programming and other experiences would also be directed at increasing visitor understanding of the park and its resources and would be a significant benefit. The same types of benefits are true of alternative C. However, alternative C offers fewer recreation facilities and a less expansive mix of experiences than alternative B. Because it does greatly expand visitors' understanding of the park and its resources, considered a fundamental value of Gateway, the beneficial impacts of alternative C would be considered significant.

Social and Economic Environment

Continued management of the park as it is now would provide social benefits for those who use the park and spending by visitors in the surrounding community. The park and concessioners also benefit the socioeconomic environment through employment. Both action alternatives would improve access to Gateway and between park sites by increasing bike lanes and pedestrian walkways, as well as hubs that offer public transportation options. This combined with increased facilities and recreation options would increase visitor use, with associated social and economic benefits in access, spending, and employment. Because alternative B is estimated to increase visitor use by a greater amount than alternative C, benefits related to it would be greater. However, both alternatives would result in potentially significant social and economic benefits.

Transportation

Adverse transportation related impacts from current management include dependence by visitors on accessing the park by car and inadequate parking space to accommodate them during certain times of the week, day, or season. In the Sandy Hook Unit, insufficient parking capacity to meet demand means the unit is closed during peak visitation and traffic is reversed and redirected over the only access bridge to the site. Both alternatives B and C would increase public transportation options and provide a suite of alternative transportation options such as new and improvement bike paths, greenways, blueways, hiking trails, and pedestrian paths. Alternatives would also include additional wayfinding options for visitors to travel between park sites and new and redesigned parking areas. Taken together, these benefits for transportation under either action alternative would be significant.

Park Management, Operations, and Facilities

A chronic lack of adequate funding, particularly for facility maintenance, has led to deterioration of many park buildings and other assets, a condition that would continue under alternative A, with significant adverse impacts on operations and facilities. Park managers have also made efforts to adopt energy-efficient building standards, adaptively reuse structures, and increase the fuel efficiency of fleet vehicles, with substantial benefits for park operations. Both action alternatives would continue the current "banding" effort to determine which structures, infrastructure, and other facilities it should prioritize for rehabilitation and preservation, leaving some (including historic structures considered fundamental in some cases) to deteriorate. This focus will allow the park to better direct its staff and budget toward maintaining and rehabilitating remaining assets, with substantial benefits. Both alternatives would also partner with others including New York City to co-manage sites, combining programming and other functions to avoid overlap and increase operational efficiency. In addition, both alternatives would substantially improve the sustainability of park operations, building practices, and energy utilization. The benefits of each of these actions would be considered significant. With preservation as a higher management priority and the more aggressive pursuit of public–private partnerships for reuse of historic structures, alternative C would result in substantial and significant benefits for park operations. Alternative C would also include a greater emphasis on sustainable facilities and park operations than alternative B, as it includes an anaerobic digester. This is a benefit for both energy-efficiency goals for the park as well as park budgets.

Next Steps and Plan Implementation

~~The GMP/EIS will be made available for a 60-day review and comment period to federal, state, and local agencies and all other interested parties, including organizations, businesses, interested individuals and stakeholders, and the general public. Comments will be accepted electronically through the NPS PEPC website or in the form of written letters that must be post-marked by the due date shown on the PEPC website. During the review period, the NPS will hold public meetings where the public will have additional opportunities to provide comments on the management alternatives and impact analysis presented in the draft GMP/EIS. Once the comment period has closed, the NPS will evaluate all comments received, after which a final GMP/EIS will be prepared.~~ The final GMP/EIS will report on the results of agency and public comments on the draft GMP/EIS, including any changes that may have been made as a result of agency and public comment. The final GMP/EIS will be released for a 30-day no-action period. The availability of the final GMP/EIS will be announced to agencies and the public and will be noticed in the Federal Register. No sooner than 30 days after the release of the final GMP/EIS, the Northeast Regional Director may sign a record of decision selecting an alternative for implementation as the approved GMP for Gateway. The availability of the signed record of decision will be noticed in the Federal Register, after which the NPS would proceed to implement the approved GMP contingent on available funding. By virtue of recording this selection in a record of decision, this alternative will become the park's new general management plan.

How to Read This Plan

This plan is divided into six ~~five~~ chapters:

Chapter 1: Foundation for Planning describes reasons why the general management plan is being prepared. Chapter 1 presents the park's purpose and significance statements and describes the fundamental and other important resources and values that are critical to achieving the park's purpose and maintaining its significance. This section also describes the planning process and issues addressed in the plan.

Chapter 2: Management Alternatives describes a new vision for Gateway and evaluates, and compares the no-action alternative and two action alternatives. The no-action alternative provides a baseline from which the two action alternatives can be evaluated. Desired resource conditions, opportunities for visitor experience, as well as levels of development intensity necessary to accomplish each alternative are presented.

Chapter 3: Affected Environment describes the existing natural, cultural, and socioeconomic resources that could be potentially affected by implementing either one of the alternatives.

Chapter 4: Environmental Consequences describes the potential impacts on the park's resource values that could result from implementing any of the alternatives.

Chapter 5: Consultation and Coordination describes the public involvement and agency coordination process that occurred during the GMP planning process. Required compliance mandates are also summarized.

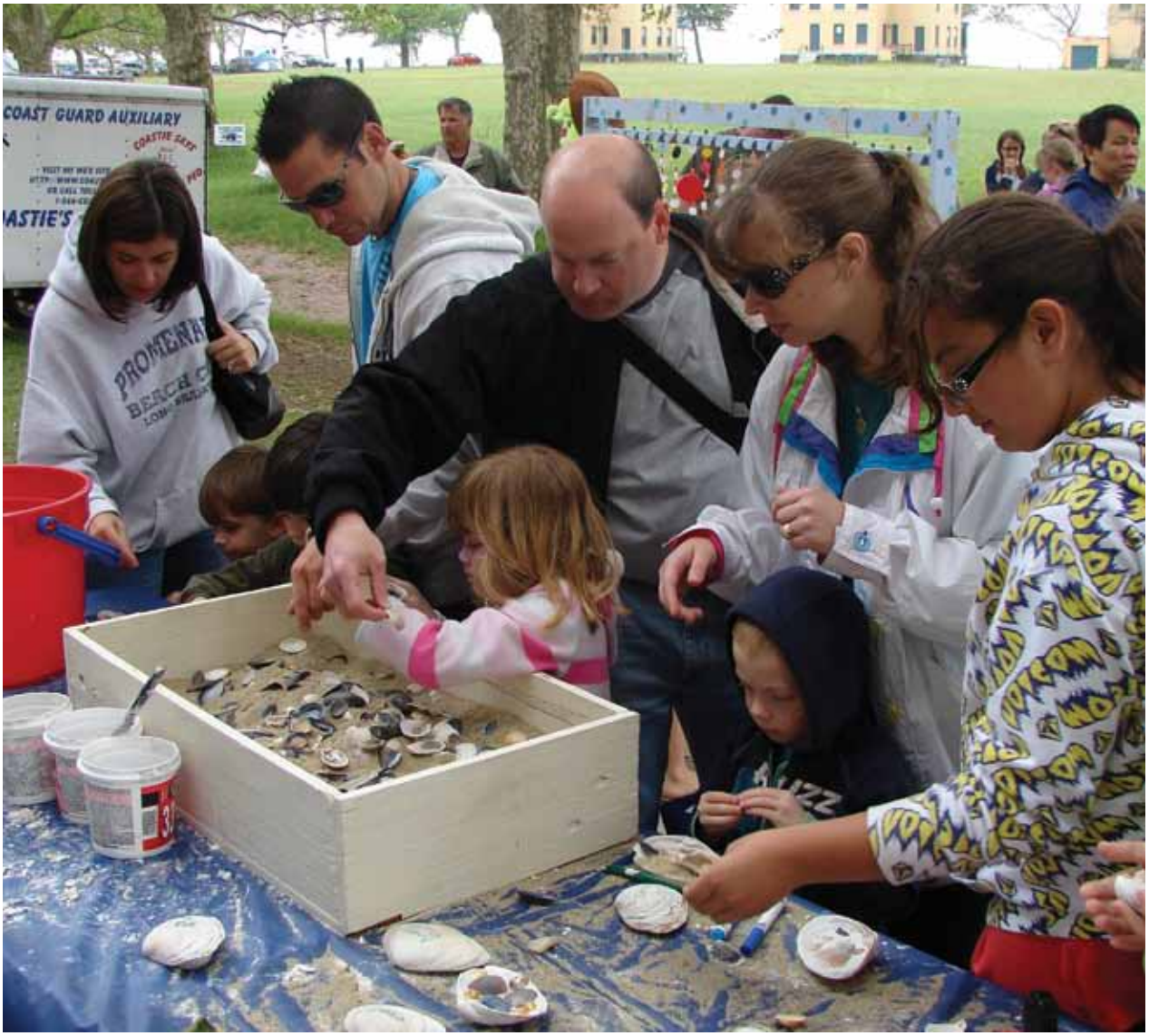
Chapter 6: Comments and Responses to Comments on Draft Plan describes the public comment review process and addresses substantive comments.

References and legal citations are cited from which background and supporting documentation was obtained.

A **Glossary** of environmental terms used in this document is provided.

An **Index** of key terms is provided for easy cross referencing.

Appendices provide additional supporting technical data and relevant background material cited throughout the plan.



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