U.S. Department of the Interior
National Park Service
And
U.S. Federal Highway Administration
Eastern Federal Lands Highway Division

Gateway National Recreation Area
Jamaica Bay Unit
New York City, New York

Jamaica Bay Transportation Studies
Development Concept Plan/Environmental Assessment/Assessment of Effect

May 5, 2006

Proposed Action: The National Park Service and the Federal Highway Administration's Eastern Federal Lands Highway Division are proposing improvements at four distinct locations within the Jamaica Bay Unit of Gateway National Recreational Area: Floyd Bennett Field, Jacob Riis Park, Riis Landing, and the New NPS Sites at Pennsylvania and Fountain Avenues. The purpose of the proposed actions is to provide safe, efficient travel to and circulation around the different study areas; improve transportation operating conditions; and improve the overall visitor "approach" experience to these sites. To accomplish this, the proposed actions include new access/egress points, modified internal circulation patterns, improved roadway geometry, new access roads and parking lots, as well as improved bicycle and pedestrian access. These improvements have the potential to impact soils and topography, vegetation, wildlife and wildlife habitat, water resources, floodplains, air quality, noise, archeological resources, historic structures, cultural landscapes, visual resources, transportation, visitor use and experience, and operations.

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Note to Reviewers and Respondents:

If you wish to comment on this Development Concept Plan/Environmental Assessment/Assessment of Effect, you may mail comments by June 5, 2006 to the name and address below or you may post them electronically at http://parkplanning.nps.gov. It is the practice of the NPS to make all comments, including names and addresses of respondents who provide that information, available for public review following the conclusion of the NEPA process. Individuals may request that the NPS withhold their name and/or address from public disclosure. If you wish to do this, you must state this prominently at the beginning of your comment. NPS will honor such requests to the extent allowable by law, but you should be aware that NPS may still be required to disclose your name and address pursuant to the Freedom of Information Act.

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ACRONYMS

ACHP – Advisory Council on Historic Preservation
ACM – asbestos-containing material
ADA – Americans with Disabilities Act
ADT – Average Daily Traffic
AOE – Assessment of Effect
AQRVs – air quality related values

ATS – alternative transportation system

BMP – best management practice

CAAA – Clean Air Act Amendments of 1990
CAFE – Corporate Average Fuel Efficiency
CEQ – Council on Environmental Quality
CLR – Cultural Landscape Report
CMAQ – Congestion Mitigation and Air Quality
CMP – Costal Management Program
CO – carbon monoxide
Coast Guard – United States Coast Guard

dB – decibels
dBA – A-weighted sound levels in decibels
DCP – Development Concept Plan
DO – Director's Order
DOI – U.S. Department of the Interior

EA – Environmental Assessment
EDR – Environmental Data Resources, Inc
EFLHD – Eastern Federal Lands Highway Division
EO – Executive Order
EPA – Environmental Protection Agency
EPW – Evaluation for Planned Wetlands Functional Capacity Index
ESF – Environmental Screening Form

FDNY – New York City Fire Department
FEMA – Federal Emergency Management Agency
FIS – flood insurance study
FHWA – Federal Highway Administration
FONSI – Finding of No Significant Impact
FTE – full-time equivalency
FY – fiscal year

Gateway – Gateway National Recreation Area
GIS – geographic information system
GMP – general management plan
gpm – gallons per minute
GPS – global positioning system

HOV – high occupancy vehicle
HSR – Historic Structures Report

Jacobs – Jacobs Civil, Inc.
JFK airport – John F. Kennedy International Airport

LCS – List of Classified Structures
Leq – Sound Level Measurement
LOS – level of service
LRIP – Long Range Interpretive Plan

MOA – Memorandum of Agreement
MTA – Metropolitan Transportation Authority

NAAQS – National Ambient Air Quality Standards
NAC – noise abatement criteria
NAGPRA – Native American Graves Protection and Repatriation Act
NAS – Naval Air Station
National Register – National Register of Historic Places
NAVD 88 – National American Vertical Datum of 1988
NEPA – National Environmental Policy Act
NGVD – National Geodetic Vertical Datum
NHPA – National Historic Preservation Act
NHTSA – National Highway Traffic Safety Administration
NO_x – nitrous oxide
NO_2 – nitrogen dioxide
NPS – National Park Service
NRCS – Natural Resources Conservation Service
NWI – National Wetlands Inventory
NYCDOS – New York City Department of Sanitation
NYCDOT – New York City Department of Transportation
NYCDPR – New York City Department of Parks and Recreation
NYPD – New York City Police Department
NYSDEC – New York State Department of Environmental Conservation
NYSDOS – New York Department of State
NYSDOT – New York State Department of Transportation

O_3 – ozone
OSHA – Occupational Safety and Health Act; also, Occupational Safety and Health Administration

Pb – lead
PCBs – polychlorinated biphenyls
PM_{10} – Particulate matter with a diameter less than or equal to 10 micrometers
PM_{25} – Particulate Matter with a Diameter Less than or Equal to 2.5 micrometers
PMIS – project management information system
ppm – parts per million
ppt – parts per thousand
psi – pounds per square inch

RMP – resource management plan
ROD – Record of Decision

SHPO – State Historic Preservation Officer
SO_2 – sulfur dioxide
SOF – Statement of Findings

TMC – Turning Movement Counts
TNM – Traffic Noise Model
TSS – total suspended solids

USACE – U.S. Army Corps of Engineers
USDA – U.S. Department of Agriculture
USDOT – U.S. Department of Transportation
USGS – U.S. Geological Survey
USMC – United States Marine Corps
USPP – United States Park Police

VHB – Vanasse Hangen Brustlin, Inc.
VMT – Vehicle Miles of Travel
VOC – Volatile Organic Compounds

WPA – Works Progress Administration

1
PURPOSE AND NEED

INTRODUCTION

Gateway National Recreation Area (Gateway), the nation's first urban national park, was established in 1972 to provide a high-quality national park experience to one of the nation's most developed urban centers and reach populations that might not easily be able to access more traditional National Park Service (NPS) sites. The park's significant natural areas and wildlife habitats, historic structures and archeological sites, ocean and bay beaches, nursery and horticultural areas, outdoor sports fields, and structures under rehabilitation for indoor sports provide outstanding opportunities for a wide range of interpretive, educational, recreational, and tranquil experiences for the many millions of regional residents, the units of Gateway have been the subject of numerous, large-scale planning efforts.

The protection of these resources for recreational and educational means is highlighted in the Gateway mission statement, which states:

> *"[Gateway] encompasses the largest collection of natural systems, wildlife habitats, historic resources and outdoor recreational opportunities in the New York City/New Jersey metropolitan area. We maintain, improve, and make these resources and opportunities available to the public for inspiration, education, and recreation. These areas include numerous sites of critical natural and cultural importance: to the health of local ecosystems; to the life of migratory and native species; and to the military, navigational and aviation history of the region and the nation, especially in the context of the historic coastal defenses of New York Harbor. The responsibilities and attendant activities are inescapably shaped by the intense urban culture and value systems of the region. The park in turn endeavors to incorporate the NPS conservation ethic into those values. Established with the express purpose of bringing the "National Park Service Experience" to the urban population, we are truly the gateway to The National Park System for millions of people".*

Gateway's three units – Staten Island, Sandy Hook, and Jamaica Bay – have been the subject of numerous, large-scale planning efforts. Over the last three years, Gateway has received an average 8.5 million visitors annually. These visitors come from the communities immediately surrounding the park, from other parts of the city and region, from throughout the United States, and even internationally. These guests represent the diverse socioeconomic, racial, cultural, and religious communities that inhabit the metropolitan New York City area. In an effort to improve visitor services for this diverse visitor population, the NPS is developing plans for a number of new opportunities and facilities as well as resolving noted circulation difficulties throughout Gateway.

The NPS and the Federal Highway Administration (FHWA) Eastern Federal Lands Highway Division (EFLHD) propose to enhance transportation in the Jamaica Bay unit of Gateway, in the boroughs of Brooklyn and Queens in New York City, New York. The study areas (areas of proposed action) target four distinct sites within the unit: Floyd Bennett Field, Jacob Riis Park, Riis Landing, and the new sites at the former Pennsylvania and Fountain Avenues landfills. The purpose of the proposed action is to provide safe and efficient travel to and circulation within the different study areas considering planned growth and developments; improve transportation operating conditions; and improve the overall visitor "approach" experience at these sites. To achieve this, alternatives for the proposed action would require a combination of modifications to existing parking lots and roadways, new parking lots and roadways, and new signage.

This Development Concept Plan/Environmental Assessment/Assessment of Effect (DCP/EA/AOE) analyzes alternatives for the proposed action at each of the study areas, as well as the potential impacts these alternatives would have on the natural, cultural, and human environment. This document has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended; regulations of the Council on Environmental Quality (CEQ) (40 CFR 1508.9); and NPS Director's Order (DO) #12, "Conservation Planning, Environmental Impact Analysis, and Decision-making." This DCP/EA/AOE also complies with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended and the Coastal Zone Management Act.

DESCRIPTION OF THE PARK AND STUDY AREAS

Gateway National Recreation Area

Sparked by environmental, fitness, and recreational movements of the 1960s, national recreation areas were designed and developed to provide space for a variety of recreational activities, while protecting natural and cultural resources. Established in 1972, Gateway consists of approximately 26,000 acres of land previously owned by the states of New York and New Jersey, as well as Army and Navy installations, and private owners. It includes a mix of developed and undeveloped land, including beaches, dunes, wetlands, forests, and a wildlife refuge (Figure 1). The park offers urban dwellers opportunities for environmental, historical, educational, and recreational experiences that are not available in other parts of the city.

The park, which sits at the "gateway" to New York City, is located at the southern end of New York Harbor and consists of three administrative units. The Sandy Hook unit, located in Monmouth County, New Jersey, is situated on the western side of the outer harbor; the Staten Island unit, which stretches

between Raritan Bay and the Verrazano Narrows, is positioned at the northern end of the outer harbor; and the Jamaica Bay unit, located in the Brooklyn and Queens Boroughs, is on the eastern side of the outer harbor. The park can be accessed from the water by ferries and other boats; by air at Newark Liberty International, La Guardia, or John F. Kennedy (JFK) Airports; or by land on the New Jersey Turnpike (Interstate 95), the Garden State Parkway, New Jersey State Route 36, New York State Route 27 (the Belt Parkway), and Interstates 78, 495, and 678.

Jamaica Bay Unit

The Jamaica Bay area played an important role in the development of the nation. Its once prominent shellfish industry helped establish the region as an industrial and residential center. The growth of the New York/New Jersey area served as a core of the nation's economic growth. The role the region has played in this growth is still evident in the airport, military installations, piers and marinas, bathhouses, parks, and transportation infrastructure.

The Jamaica Bay unit is located along the southeastern tip of Long Island, and includes the Bay, the Jamaica Bay Wildlife Refuge, and the surrounding acres of land (Figure 2). It is bound by the Belt Parkway (New York State Route 27) to the north, JFK Airport to the east, Sheepshead Bay to the west, and the Atlantic Ocean to the south. In addition to the Bay and the Wildlife Refuge, other well known sites contained within the Jamaica Bay unit include: Floyd Bennett Field, Jacob Riis Park, Fort Tilden, Canarsie Pier, Breezy Point, Plumb Beach, and Bergen Beach. Tours and ranger-led talks about the park's significant natural and cultural features are available throughout the year. Other visitor activities include ocean swimming, nature walks, sailing, bicycling, bird watching, gardening, camping, astronomy, and fishing. The unit also hosts a wide range of team sports, cultural activities, and ethnic festivals.

Study Areas

This document, the *Jamaica Bay Transportation Studies DCP/EA/AOE*, focuses on four areas within the Jamaica Bay unit: Floyd Bennett Field, Jacob Riis Park, Riis Landing, and the New NPS Sites at Pennsylvania and Fountain Avenues (Figure 3).

Floyd Bennett Field

Floyd Bennett Field was the first municipal airport in New York City and later became an important World War II military airfield. When the NPS was granted control of the airfield, it sought to preserve this history while providing a wide variety of educational, recreational, and cultural activities. The site covers more than 1,000 acres as it straddles Flatbush Avenue on the northern shore of the Rockaway Inlet.

Hangar 4 at Floyd Bennett Field

East of Flatbush Avenue, the site is composed of the historic airfield, its hangars and other structures, and the "North Forty" natural area. Visitor activities at the site include hiking in the North Forty; radio controlled airplanes, land sailing, and bicycling along the abandoned runways; and bird watching in the maintained Grassland Management Areas. Additional recreation and educational programs are offered in

some of the historic structures, such as the Ryan Visitor Center, which once served as the terminal and air traffic control tower of the airport. To the west of Flatbush Avenue, the site is shared by two concessionaires who run a golf driving range and a marina.

In addition, the NPS shares the site with the New York Police Department (NYPD), the New York City Department of Sanitation (NYCDOS), and the United States Marine Corps (USMC). These users all have land assignments along the eastern edge of the site (Figure 4).

At this time, the NPS and a new concessionaire are working to transform two of the remaining hangars into a sports complex that would contain ice rinks for hockey and skating, as well as other courts and areas for basketball, gymnastics, and other sports activities. The facility could be open up to 20 hours a day, bringing a large, new visitor population to the site, drawn from the entire metropolitan area.

Jacob Riis Park

Jacob Riis Park consists of over 200 acres of land located on the western side of the Rockaway Peninsula. It is bordered on the north by Rockaway Inlet and Jamaica Bay and on the south by the Atlantic Ocean (Figure 5). The Neponsit and Belle Harbor residential communities line the eastern border, while Fort Tilden and the Breezy Point neighborhood lies to the west of the Fort Tilden portion of the site. Jacob Riis Park is comprised of a public beach and boardwalk that connect the park bathhouse, the mall, the golf course, and remaining open space. The site's most noticeable feature is the 9,000-stall parking lot, which was constructed in the 1930s. As one of the few public beaches in the city, the parking lot was regularly filled to capacity during summer months, though its usage has dropped off in recent years. The lot is surrounded by a unique road system that was also designed in the 1930s, with Beach Channel Drive separating the lot from Jamaica Bay.

The NPS is currently rehabilitating the Jacob Riis Bathhouse to support additional visitor services and concessions. Upon completion, the park also plans to bring a year-round restaurant to the site as well as outdoor concerts and other events.

INSERT FIGURE 1

INSERT FIGURE 2

Riis Landing

One of the buildings that could be rehabilitated at Riis Landing

Riis Landing includes approximately six acres situated along the southern shore of Rockaway Inlet (Figure 6). The site has a long history within the Fort Tilden area, and more recently as a United States Coast Guard (Coast Guard) station. Though the area was included in Gateway's original land assignment in 1972, the park did not initially develop it as a site to support visitor use, as it was shared with the Coast Guard and did not include the appropriate structures for desired activities. The site consists of Station Rockaway (the Coast Guard life saving station, which includes a fenced-off boat basin), a moderate-sized parking lot, and a narrow beach. A few buildings are situated along the perimeter of the parking lot, some of which are used for NPS maintenance activities, while others are abandoned and in need of renovation. A small dock also sits at the landing to support summer ferry tours run by outside organizations.

The Coast Guard has recently transferred the remaining buildings on site to NPS ownership. The boat basin will continue to be used by the park and other local agencies, and is also occasionally used as a passenger ferry terminal. The site will also continue to support the United States Park Police (USPP) Marine Unit, who access the location via a separate gated driveway. With the transfer complete, NPS can now move forward with their plans to improve the buildings on site to support visitor services and activities, such as a bed and breakfast and regular ferry service for visitors and commuters.

New NPS Sites at Pennsylvania and Fountain Avenues

The Pennsylvania and Fountain Avenues Landfill sites were included in Gateway's original legislated boundary. However, agreements with New York City and State required the sites to remain under the city's jurisdiction until closure activities were complete. Overall, the two sites cover over 300 acres of land on the northern shore of Jamaica Bay, at the northern ends of Pennsylvania and Fountain Avenues (Figure 7). The sites are also bound by the Belt Parkway to the north, the Fresh Creek Basin to the west, and Old Mill Creek to the east. Hendrix Creek divides the two sites. The new Gateway shopping mall and Spring Creek Towers are north of the Belt Parkway.

The two landfill sites are currently being capped by New York City, and once the capping process, landscaping, and determination that the closure meets environmental requirements are complete, they will be handed over to the NPS. The sites are being designed to promote passive recreation, as the cap can not support the infrastructure that would be required for any active recreational uses. The only portions of the site that will be accessible to visitors are the former administrative areas and those areas that are linked to the trail system that is included in the landscaping. The rest of the site will be planted to support a vast array of native habitats and species. The former administrative areas were used to support parking and site operations and were not included in the capping process. Therefore they are the only portions of the new sites that have been designated as being able to support physical development.

Planting at the Pennsylvania Avenue Landfill is scheduled to begin in the spring of 2006 (the Fountain Avenue site is about one year behind), followed by a three year maintenance period to ensure that the vegetation has established and the capping process was successful. After that time, the sites can be opened for public use.

PURPOSE OF AND NEED FOR ACTION

The purpose of the proposed action is to provide safe and efficient travel to and circulation around the different study areas, considering planned growth and developments; improve transportation operating conditions; and improve the overall visitor "approach" experience at these sites. These improvements are necessary to meet the needs of the growing regional and visitor population. Maintaining the delicate balance between population and resource is a challenge for all national parks. This challenge is compounded for national recreation areas, which must also seek to provide direct access to the park's resources for recreational purposes. Therefore, to meet its mission at Gateway, the NPS must be continually working to ensure that the park is safely and efficiently connected to the local and regional transportation network. Furthermore, because the Jamaica Bay unit is comprised of a variety of different installations scattered around the Bay, there are a vast number of transportation routes and modes that need to be accommodated into the park's internal access and circulation network.

In preparation for planned developments, the NPS has identified existing or developing access deficiencies in internal and external transportation routes, access points, internal circulation and navigation networks, and parking lots within the Jamaica Bay unit that would hinder its goal of providing safe and efficient public access to park resources. As Gateway continues to develop new activities and attractions, these deficiencies will magnify. In order to correct these deficiencies and prepare for the future, the NPS has identified four locations at the Jamaica Bay unit as requiring immediate attention: Floyd Bennett Field, Jacob Riis Park, Riis Landing, and the New NPS Sites at the former Pennsylvania and Fountain Avenues landfills.

Because the four study areas are geographically separated and have different requirements necessary to fulfill the purpose of this study, their individual needs are assessed below.

INSERT FIGURE 3

INSERT FIGURE 4

INSERT FIGURE 5

INSERT FIGURE 6

INSERT FIGURE 7

Floyd Bennett Field

Floyd Bennett Field is one of the most active areas in the Jamaica Bay unit and is accessed by a number of different types of users. As the site continues to grow, there is a need to address current user conflicts, as well as safety, access, and circulation deficiencies to ensure these problems do not intensify under future plans. In order to take initial steps to improve the visitor experience at Floyd Bennett Field, there are three primary needs that must be addressed:

- Resolve user conflicts
- Provide access for a new user group
- Improve the park-like "approach"

There are numerous groups that use Floyd Bennett Field. These users can be divided into two primary groups, the "recreational" users and the "partner and tenant" users. The partner and tenants at the site include the NYPD, the NYCDOS, and the USMC. The NYPD operation includes training for helicopter activities as well as high speed driving. While the high speed driving is confined to southeast end of Runway 12-30, within the NYPD land assignment, vehicles traveling to and from the site maintain higher speeds than many of the site's recreational users. This traffic must pass through several locations utilized by the site's recreational users, including the Ecology Village and the Environmental Study Center. Both of these locations support relatively high volumes of pedestrian traffic, including school children. Pedestrians and drivers must be continually vigilant to avoid accidents. The NYCDOS also supports training activities on the Field. To access their site, the NYCDOS employees travel along the same corridor as many of the site's recreational visitors. However, while many of the recreational users are looking for a location or observing portions of the site as they drive, the NYCDOS employees are more focused on getting to their destination as quickly as possible. The interaction between the two creates difficulty for both groups. Once they have reached their location, the NYCDOS operates driver training activities across the site.

Some of the vehicles operated by the NYCDOS are street cleaning machines that make a great deal of noise as they pass through some of the Field's more tranquil locations. These vehicles, and the others used for training activities, are larger than the average car that passes through the site and must share road space with these other vehicles, as well as bicyclists and pedestrians that are accessing the runways and other roadways across the site. Finally, the USMC brings a number of tenant users to the site. However, based on the proximity of their site to the current entrance of the Field, as well as the activities engaged in by the USMC, they do not create a noticeable distraction to the park environment.

Floyd Bennett Field's partner and tenant users

The site's "recreational" users are those visitors that come to the site to take part in the variety of activities offered by the NPS, including athletic competitions and other active recreational events; historic interpretation and educational activities focused on the site's history and environment; as well as bird watching, fishing, hiking, or other passive activities. While these activities

are not all compatible with one another, the site is large enough to support this diversity. However, these visitors must share the site entrance and roadways with one another, as well as the partner and tenant users described above. Therefore, someone using the community gardens is continually subjected to the noise and distraction of vehicles accessing other points across the Field, while those visitors attempting to reach the historic aircraft hangars on the far side of the Field must weave their way through the site along with many of the other partner and tenant users. This detracts from the experience of all of the site's users, as well as the park-like approach the NPS strives to promote.

These conflicts will be compounded by the development of the new sports complex. The new attraction will bring a large number of new visitors to the site at nearly all hours of the day. These visitors will also need to travel to the northern end of the site. Initially, many of these visitors will be new to the site and unfamiliar with its current entrance. New visitors traveling to the sports complex along Flatbush Avenue from the north would pass the site with no sign of a point of access. From this vantage point, the complex seems separated from the current entrance, making access seemingly impossible. Likewise, visitors traveling along Flatbush Avenue from the south would pass the current entrance and the Ryan Visitor Center area before seeing the sports complex, requiring them to turn around and travel back, or leaving them confused as to how to reach the site. The confusion and lack of identity detracts from the NPS presence and park-like approach.

This problem also exists for regular park visitors that are traveling to the Field for the first time. The location of the site entrance along Flatbush Avenue compared to the most visible features detracts from the Field's identity. Traveling along Flatbush Avenue from the north, visitors pass the hangars, the Ryan Visitor Center, and other visible portions of the site without knowing what they are or how to get there. By the time visitors pass the current entrance, they are visibly detached from the site and with little understanding that the current entrance is related to what they have just seen, or even an NPS site. Similarly, those visitors coming from the south pass the entrance to the site on Flatbush Avenue before they see any of the visible buildings or structures. While there are opportunities to turn around and return to the entrance, the lack of connection between the site and the entrance causes confusion and detracts from the park's identity.

Identity issues continue on site, as well. The current entrance is far from many of the Field's attractions, particularly those that are visible from Flatbush Avenue. Therefore, as visitors enter the site, they are not immediately surrounded by NPS structures that represent the park. Instead, they enter a road that is signed for NPS sites, as well as NYPD, NYCDOS, and USMC, and the visitors must share the road with these users. The lack of NPS structures at the current entrance, the distance from the core of the site, and the presence of non-NPS users further detracts from the park-like approach at Floyd Bennett Field.

Jacob Riis Park

Jacob Riis Park has been a recreational destination for over 75 years. Located on the Rockaway Peninsula, the site provides beachfront and other recreational opportunities that are in high demand within the region. There are three primary needs that require attention at Jacob Riis Park:

- Provide westbound access from Beach Channel Drive
- Reduce vehicular congestion within adjacent neighborhoods
- Resolve circulation operating deficiencies

Jacob Riis Park and the surrounding road network were designed in the 1930s by Robert Moses. One of the assumptions made by Moses and other planners over 75 years ago was that most traffic would reach the park via the Belt Parkway and the Marine Parkway (Gil Hodges Memorial) Bridge, while all westbound traffic would access the site by way of Rockaway Beach Boulevard – a route that cuts through a number of established residential neighborhoods. As such, the roadways and circulation systems set up in and around Jacob Riis Park were aimed at capturing visitors coming over the Marine Parkway (Gil Hodges Memorial) Bridge, rather than from the eastern side of the peninsula. However, as the boroughs of New York City have grown, people have begun traveling to the site from the east of Rockaway Peninsula. The vehicles traveling this route are a mix of park visitors and local commuters. Therefore, while some vehicles may wish to slow down and identify an appropriate means of accessing the park, they are caught up in the surrounding traffic. Visitors who are able to slow down and assess the site quickly realize that there is no direct access to the park while traveling westbound. These visitors must travel to the base of the Marine Parkway (Gil Hodges Memorial) Bridge and use the associated ramps to loop around into eastbound traffic that is directed straight to the parking lot and bathhouse. This approach requires quick identification of road signs and high-speed merging. Along with safety concerns, if a visitor misses a sign to merge or turn, they could end up heading north across the Marine Parkway (Gil Hodges Memorial) Bridge and pass through the toll booths without an opportunity to turn around until they reach Floyd Bennett Field.

Because of this and the increase in population and visitation, local neighborhoods have become entranceways for the park, creating unwanted traffic congestion. The NPS constantly works to maintain its reputation as a good neighbor at all of its units across the nation. In an effort to maintain and improve this role at Jacob Riis Park, the NPS needs to find a means of reducing vehicular congestion related to westbound visitors in the neighborhoods directly east of the site.

Local roads outside of Jacob Riis Park

Finally, the 75-year-old road network was designed to promote free flowing traffic patterns. However, the initial design did not consider modern day traffic; as a result, Beach Channel Drive has developed into a location where drivers can reach relatively high rates of speed. This detracts from the park-like setting in the area, and also creates safety hazards. There are also speed and safety concerns surrounding the existing traffic circle in the southeast corner of the park. Merging procedures and vehicle speeds create notable safety concerns which detract from the NPS presence at the site. The circle also fails to provide safe bicycle or pedestrian access. These deficiencies and safety issues discourage passage through the area.

Riis Landing

Riis Landing is in need of some proactive improvements that would prepare it for future developments to enhance waterfront access at the site. In order to do so, the following needs have been identified:

- Provide access and parking to support future increases in ferry service
- Provide access and parking to support new visitor attractions

Riis Landing has been included in the Gateway land assignment since the park was established, however little has been done to develop the site. Other than occasional ferry boat tours, the site does not offer any official visitor services. This is partially due to the lack of structures capable of supporting such services. Many of the buildings at the site are not in appropriate condition to support visitor uses, while others are used for maintenance and administrative operations. The other difficulty in establishing visitor services at the site is the small amount of space available for development. However, these structures could be rehabilitated to support future uses or needs.

One of the few visitor services currently offered at Riis Landing are seasonal ferry tours. These tours are run by the Friends of Gateway Parks and other groups. The tours are focused on a variety of subjects, including the history and ecology of the Bay, as well as summer fireworks displays. One of the more prominent proposals for improved waterfront activity at Riis Landing would be regular ferry service to and from the site. During the summer of 2003, New York Waterway initiated a pilot project to measure the effectiveness of a potential ferry service between Manhattan and the Landing. An estimated 2,310 people accessed the site for the ferry. This pilot project was supplemented by the *National Parks of New York Harbor Waterborne Transportation Study* (Volpe 2001) and the *Gateway Integrated Transportation Strategy and Implementation Plan* (Volpe 2004). The findings of these studies led to recommendations that the ferry infrastructure at Riis Landing be improved prior to implementation.

Although the NPS would not be in a position to run the service, it would provide the necessary infrastructure to support it. As discussions with the city and private groups progress towards a more regular service, the site must be adapted to provide additional parking. The current parking lot at the site cannot accommodate this volume (approximately 149 passengers per boat), nor can it support a high level of on site traffic. Therefore, the site must either be modified or additional offsite parking and access must be established.

The acquisition of the former Coast Guard buildings will allow the NPS to support other park and visitor uses. Along with the Coast Guard building, existing structures on the site may be renovated or replaced to provide visitor contact facilities, restroom, support services for the ferry operation, as well as a bed and breakfast or other attractions. Although the Coast Guard has transferred its properties to the NPS, it will still retain access to the boat basin, as will the NYPD, the New York City Fire Department (FDNY), the New York State Department of Environmental Control (NYSDEC), and other users. This will require designated parking for these boat basin users as well as unconditional access to the site. The new visitor services would also require additional staff to be on site and may also bring new visitors to the site. Both the staff and other guests would require at least some of the existing parking to be allocated for their use.

With this allotment of parking, there would not be enough space to support the anticipated increase in site users or ferry commuters. Because the remainder of the site is slated for future development, on site parking cannot be expanded. In planning for new developments at Riis Landing, new parking must be found or developed in the surrounding area.

New NPS Sites at Pennsylvania and Fountain Avenues

The New NPS Sites at Pennsylvania and Fountain Avenues represent a large piece of the original Gateway land assignment that has been unused by the NPS due to its history as landfills. Now that the

landfill operations have ceased, and capping and landscaping activities are nearing completion, the NPS can begin to move forward with plans to open these two sites to the public.

Before these new sites can be opened to the public, the following needs must be addressed:

- Provide safe access to the sites for private vehicles, bicycles, pedestrians, and public transportation
- Develop internal parking and circulation at both sites

Currently, there are no direct connections between the new sites and the Belt Parkway, the major highway that runs across their northern border. Past access to the site was confined primarily to large waste hauling vehicles that reached the site via haul roads at the ends of Pennsylvania and Fountain Avenues. These roads are the only connections to the site and are compatible with the current capping and landscaping activities. However, the roads have not been developed to support regular vehicular traffic and terminate at the entrance to the site without providing internal access. Without improvements to accommodate private vehicles and connect the new sites to the Parkway and the surrounding road network, the sites would not be easily accessible for a large portion of the population that the NPS seeks to serve.

Administrative area during landfill capping

Along with providing private vehicle access, the sites must also be accessible by other modes of transportation including: public transportation, bicycle, and pedestrian. Many New Yorkers rely on public transportation to travel through the city and do not own personal vehicles. For short trips, they either ride a bike or walk. Because there is such a large residential community near the sites, access improvements must provide bicycle and pedestrian access.

Although the capping and landscaping activities will include trails across the site, it will not include parking or vehicular circulation. In order to support any vehicular usage, these sites must also include appropriate parking and internal circulation routes. Visitation to the sites is anticipated to be high, and parking must be available to support these guests. The parking must also be large enough to provide safe and efficient access/egress for vehicles, buses, bicycles, and pedestrians. The access and parking developed at each site must also provide a connection to the landscaped trails.

PREVIOUS AND RELATED PLANNING STUDIES

Several previous plans and studies have informed the development of alternatives for the *Jamaica Bay Transportation Studies DCP/EA/AOE*. They include the *Gateway National Recreation Area General Management Plan/Final Environmental Statement*, the *Jacob Riis/Fort Tilden Development Concept Plan/Environmental Assessment*, the *Record of Decision* for the Pennsylvania Avenue and Fountain Avenue Landfills, the *Floyd Bennett Field Traffic Circulation Study*, the Fort Tilden and Jacob Riis Park Cultural Landscape Reports, the *National Parks of New York Harbor Waterborne Transportation Study*, and the *Gateway Integrated Transportation Strategy and Implementation Plan*.

The ***Gateway National Recreation Area General Management Plan/ Final Environmental Statement*** (GMP)(NPS 1979) was completed seven years after the creation of the park to provide the NPS with a framework for visitor use and resource management. In developing and implementing the alternatives considered in the *Jamaica Bay Transportation Studies DCP/EA/AOE,* the transportation policies for access and internal circulation established by the GMP will be considered where applicable.

The ***Floyd Bennett Field Development Concept Plan/Environmental Assessment*** (DCP/EA) (NPS 1983) expanded on the GMP to provide specific guidance to the future development of the site. The plan provided several alternatives for dividing the site into developed and undeveloped areas. The developed areas would be used to provide a wide variety of recreational activities, including the potential for concessionaire operated facilities. The undeveloped areas would provide the NPS with a means of preserving natural ecosystems that could support local wildlife populations, providing another means of enhancing the visitor experience. These natural areas include the North Forty and the Grassland Management Areas.

The DCP/EA also includes analysis of projected visitor use and vehicular traffic to the site. These projections have been surpassed through developments outside the scope of the DCP/EA, such as the introduction of the NYPD and DOS facilities, as well as growing populations in the surrounding communities and in visitation to the site. The proposals made in this document will seek to update the site to accommodate these changes, while respecting the need for developed and undeveloped areas on the Field.

The ***Jacob Riis/Fort Tilden Development Concept Plan/Environmental Assessment*** (NPS 1986) expands on the park's GMP by providing specific guidance for the development of the Jacob Riis/Fort Tilden area, including historic resource preservation, access and circulation, park information, visitor comfort, and recreational facilities and activities. A number of these issues have been addressed through the improvement and protection of structures within the two sites. Initial efforts also established a single vehicular access point to Fort Tilden. This allowed for the removal of unneeded roads that could then be used to support recreational activities. The removal of unneeded roads also reduced interactions between vehicles and pedestrians. The developments proposed and carried out in the plan assumed there would be no new recreational facilities added to the Fort Tilden area. Now as the park plans to expand its offerings at the site, there is a need to address potential changes in traffic volumes at the site. These issues are addressed by the proposed action for the *Jamaica Bay Transportation Studies DCP/EA/AOE*.

The ***Record of Decision*** and associated documentation for the ***Pennsylvania Avenue and Fountain Avenue Landfills*** (NYSDEC 1995) reviewed the history of the landfills and prescribed appropriate means for remediating and capping the sites. It also presented constructive ways the sites could be landscaped and reused for recreation, which included construction of a new facility and trail system. The development of alternatives for access to and circulation within these sites must be carefully coordinated with the proposed new facilities. In addition, special care must be used to ensure that the landfill cap remains intact.

The ***Floyd Bennett Field Traffic Circulation Study*** (NPS 2003) represents recent efforts by the NPS to address circulation and access issues at Floyd Bennett Field. The study identified several problems with access, circulation, and safety and provided guidance to improve these issues while maintaining the park-

like atmosphere. Alternatives for the proposed action include and expand on the recommendations made by the *Floyd Bennett Field Traffic Circulation Study.*

The ***Fort Tilden and Jacob Riis Park Cultural Landscape Reports*** describe the historic significance of the properties, document the design evolution of the sites, and provide recommendations for rehabilitation and preservation of each site. The *Jacob Riis Park Cultural Landscape Report* (NPS 1992) discusses the history of the design of Jacob Riis Park and its historical significance, particularly as it relates to Robert Moses and park design of the 1930s. This report makes clear that nearly all pedestrian and vehicular ways remain in the same location today as when they were built and are of primary importance to the park's significance. Recommendations for preservation are also included for the 9,000-stall parking lot at Jacob Riis Park, a primary element considered by this DCP/EA/AOE. The *Fort Tilden Cultural Landscape Report* (NPS 2005) provides background and historical significance information for Fort Tilden (which includes Riis Landing). This report is not a full treatment plan but rather general descriptions of possible treatment recommendations. The recommendations made in both of these reports were used to guide the development of alternatives for the respective study areas.

The ***National Parks of New York Harbor Waterborne Transportation Study*** (Volpe 2001) was a review of the potential for waterborne transportation at Gateway and other NPS sites within New York Harbor. The study examined the effectiveness of potential ferry operations, identified required investments and/or improvements necessary to implement service, and developed an implementation plan. The study identified Riis Landing as a potential site to support future ferry service upon upgrades to the existing dock structure (these upgrades have since been made). The report suggests that the Riis Landing site could successfully support weekday commuter ferry service as well as seasonal visitor traffic, as long as there was some type of shared funding source or a connection with other sites in the harbor. The study also notes that the NPS would serve only to house the infrastructure and potentially manage the ferry concessionaire; it would not run the ferry.

The ***Gateway Integrated Transportation Strategy and Implementation Plan*** (Volpe 2004) built off the previous plan to outline the means of implementing ferry service at several sites within the Bay, including Riis Landing. The implementation included the development of a permanent dock to support seasonal tours, a Manhattan service route, and then expanding the service to include other areas. The study noted that demand at the site was high enough to justify the implementation, and based on increases in park visitation, would most likely grow in the coming years.

Gated entrance to the Riis Landing ferry dock

SCOPING

At the initiation of the study, an Environmental Screening Form (ESF) was completed to identify issues and resource constraints that are contained within and surround the four sites. This information was used by the NPS, EFLHD, and their consultants to develop alternatives. Following this, a series of early agency and public information sessions were held in March and April 2005, respectively, to guide the development and selection of alternatives for the four sites. For further scoping and public participation information, see "Chapter 5: Consultation and Coordination" of this DCP/EA/AOE.

PLANNING ISSUES AND CONCERNS

During the scoping process, specific issues and concerns were identified as critical to the development of alternatives for the proposed action. For the *Jamaica Bay Transportation Studies DCP/EA/AOE*, the following were noted as most important: NPS Identity, traffic operations, safety, security, property ownership, and adjacent neighborhoods.

NPS Identity. Because the Jamaica Bay unit is spread out across a relatively large, developed area, maintaining the NPS park-like look and feel has been a challenge. In some cases, visitors are not aware that the park they are in is part of the National Park System, while in other cases passersby are unaware that the park exists. This study must consider the NPS identity and improve the park-like atmosphere of all the sites considered.

Traffic Operations. While the roadways surrounding the park are currently operating acceptably, the roadway geometry contributes to access and circulation issues. With the inclusion of increased park traffic, these geometric deficiencies will contribute to degradation in traffic operations and unmet access needs will affect the surrounding neighborhood. The proposed action should not add to these deficiencies, and where possible it should seek to improve them.

Safety. The Jamaica Bay unit and surrounding area support high levels of vehicular, bicycle, and pedestrian traffic. Interactions between motor vehicles, bicycles, and pedestrians are a concern throughout the city. From its inception, Gateway has sought to alleviate these issues within the NPS boundaries. As the regional population grows and more visitors access the park, the NPS must continue to address these conditions within the boundaries of Gateway. The proposals made in this study must all avoid creating new safety hazards, and where possible, improve existing conditions at all four sites.

Security. Three of the four study sites under review for this document require an increased level of security that must be maintained. At Floyd Bennett Field and Riis Landing, the NPS shares the site with other users who require a higher level of security. For example, the NYPD and USMC not only need to have secure locations on the Field but also secured access and egress during emergencies. At Riis Landing, Station Rockaway will continue to support NYPD, Coast Guard, USPP, and other agencies' water-based activities. The site will need to continue to be secured and have available parking for these users. The former landfill sites will also require increased security, so the NPS can control when visitors enter the site and what equipment they bring with them. This is necessary to protect the integrity of the landfill cap, as well as to provide protection for the surrounding areas. The proposals made in this study must find ways of maintaining or enhancing the security offered to these users at their respective sites.

Property Ownership. All of the proposed study areas are accessed by, or are adjacent to non-NPS roads and properties. In order to effectively provide adequate site access and circulation within the study areas, these non-NPS properties will have to be considered in order to resolve some of the existing issues. Use of these lands will require coordination with the New York City Department of Transportation (NYCDOT) at all four sites, and the New York City Department of Parks and Recreation (NYCDPR) at the New NPS Sites, Jacob Riis Park, and Floyd Bennett Field.

Adjacent Neighborhoods. Gateway's location within New York City makes it easily accessible for many local neighborhoods. This also means that actions taken by the NPS can affect its residential neighbors. In

order to fulfill its goal of providing a positive park experience, as well as its desire to be a good neighbor, Gateway continually works to ensure that its presence in the New York City environment is a positive one for its neighbors, as well as its visitors. This is especially important at Jacob Riis Park, where traffic traveling to the site passes through the surrounding neighborhoods. It is also important at the New NPS Sites at Pennsylvania and Fountain Avenues, where access to the sites must be created in a way that benefits the local community without adversely impacting existing traffic patterns.

IMPACT TOPICS CONSIDERED

Impact topics are resources of concern that could be affected, either beneficially or adversely, by the range of alternatives presented in this DCP/EA/AOE. They were identified based on federal laws, regulations, and Executive Orders; *NPS Management Policies 2001* (NPS 2000); an analysis of the existing resources at the Jamaica Bay unit; and planning issues identified during scoping. The impact topics considered in this evaluation include natural and physical resources (soils and topography, vegetation, wildlife and wildlife habitat, water resources, floodplains, air quality, and noise); cultural resources (archeological resources, historic structures, and cultural landscapes); visual resources; transportation, site access, and circulation; visitor use and experience; and operations. A brief rationale for the selection of each impact topic is provided below. “Chapter 3: Affected Environment” and “Chapter 4: Environmental Consequences” present more detailed information and impact analysis.

Natural and Physical Resources

Soils and Topography

The high level of development within the study area has been made possible by the suitability of naturally occurring soils as well as those brought in as fill material. These soils have the composition, drainage, and a deep enough water table to support most types of development.

The soil conditions also influence local topography. The Jamaica Bay unit is situated along the northern edge of the Mid-Atlantic Coastal Plain. As such, the topography in the area is relatively flat, ranging from at or below sea level to 18 feet National American Vertical Datum of 1988 (NAVD 88). Development within the area has manipulated topography in some locations, most noticeably at the former landfill sites where elevations reach more than 100 feet NAVD 88.

The alternatives proposed by this EA could change the location and/or amounts of impervious surface within the study areas, requiring cut or fill of soils, as well as grading activities to alter topography; therefore, the impact topic of soils and topography is considered.

Vegetation

The Jamaica Bay unit consists of a variety of upland, wetland, and coastal vegetative communities surrounded by heavy development. However, much of the study area is limited to developed green space: miscellaneous grasses, small shrubs, and immature trees. Although the vegetation has been disturbed over years of development and urban activity, it still provides wildlife habitat and much needed green space and promotes the park-like environment the Jamaica Bay unit strives to maintain. There are five state

listed species within the unit that are considered under this topic. The proposed alternatives could remove some of the existing green space, so the impact topic of vegetation is addressed.

Wildlife and Wildlife Habitat

A limited number of wildlife inventories and documented observations have been performed within Gateway, including the Jamaica Bay unit. The data suggests that Jamaica Bay is home to a number of mammals, reptiles, amphibians, and resident birds, as well as migrating bird species, which inhabit coastal forests, coastal scrubs, upland meadows, and tidal marshes. There are eight state listed species within the unit that are considered under this topic. Because the proposed alternatives could disturb these species and alter their habitats, the impact topic of wildlife and wildlife habitat is considered.

Water Resources

The Jamaica Bay unit gains its name from the water body it encompasses: Jamaica Bay. The Bay, Rockaway Inlet, and the Atlantic Ocean border all of the locations addressed by this study and form the basis for much of the park's recreational and educational activities. The proposed alternatives could change the location and/or amounts of impervious surface within the study areas creating changes in current hydrologic patterns and stormwater pollution loads thus affecting water resources. Therefore, the impact topic of water resources is considered.

Floodplains

Executive Order 11988, "Floodplain Management" and NPS DO #77-2, "Floodplain Management" establish policy in order to maintain natural floodplain functions by avoiding modification, occupancy, or development within a floodplain. Based on the low elevations throughout the study area and its close proximity to Jamaica Bay, the Atlantic Ocean, and their respective tributaries, much of the Jamaica Bay unit is situated within the 100- or 500-year floodplain. Because the proposed action would include construction of new infrastructure within the floodplain, the impact topic of floodplains is considered.

Air Quality

The Jamaica Bay unit is located within the Environmental Protection Agency's (EPA) New York – New Jersey – Connecticut Air Quality Control Region. The Clean Air Act (42 USC 7401-7661) defines this region as a contiguous area where air quality is relatively uniform. This specific area has attained acceptable levels for many air pollutants but is still lacking in some categories. Some of the pollutants that are still problematic for the region are those associated with vehicular exhaust. The proposed elements of this study would create new traffic patterns that could alter the pollutant loads and thus air quality. Therefore, the impact topic of air quality is considered.

Noise

The Jamaica Bay unit, as well as other parts of Gateway, provides a quiet escape from the hustle and bustle of New York City life. Despite its relatively quiet environment, many locations within the unit are still in close proximity to major roads or experience other noise impacts from the surrounding urban environment. The NPS strives to maintain or reduce existing noise impacts within Gateway, so the park can continue to serve as a refuge from the surrounding urban environment. Because the actions proposed

under this study could alter traffic and circulation patterns, thus changing the noise levels within the study area, the impact topic of noise is considered.

Cultural Resources

The NHPA, the NPS Organic Act (16 USC 1-4), *NPS Management Policies 2001*, DO #12, and DO # 28, "Cultural Resources Management Guideline" require consideration of impacts on cultural resources. The proposed action has the potential to impact archeological resources, historic structures, and cultural landscapes.

Archeological Resources

The NPS defines an archeological resource as any material remains or physical evidence of past human life or activities that are of archeological interest, including the record of the effects of human activities on the environment. Archeological resources are capable of revealing scientific or humanistic information through research (DO #28). Known archeological resources within the study area are based primarily on a park wide archeological survey, undertaken in 1977 (JMA 1978). In addition, a Phase 1a archeological report was completed for Floyd Bennett Field (URS Corporation, June 2005), as well as a Phase Ia archeological survey for Fort Tilden (Northern Ecological Associates, Inc., 2006). Because the proposed action would result in ground disturbance and could impact the integrity of unknown archeological resources, the impact topic of archeological resources is addressed.

Historic Structures

The NPS defines a historic structure as "a constructed work, usually immovable by nature or design consciously created to serve some human act" (DO #28). The study areas at Floyd Bennett Field, Jacob Riis Park, and Riis Landing include historic districts which contain buildings listed on or eligible for listing on the National Register of Historic Places (National Register). Because the proposed action has the potential to impact these buildings, the impact topic of historic structures is addressed.

Cultural Landscapes

As described in DO #28, a cultural landscape is "a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person, or exhibiting other cultural or aesthetic values." The study areas at Floyd Bennett Field, Jacob Riis Park, and Riis Landing all have or contribute to known cultural landscapes that are listed on or eligible for listing on the National Register. The proposed action could alter these landscapes by changing circulation patterns and infrastructure. Therefore, the impact topic of cultural landscapes is addressed.

Visual Resources

Many of New York City's visual resources are known throughout the world. In many ways, these views define the city and give perspective to its various boroughs and regions. For example, people living in Brooklyn may associate their neighborhood with a view of the Manhattan skyline to the north. These resources are also an important part of the park and its benefits to the community. The Jamaica Bay unit is no different, with its views of the ocean, the Manhattan skyline, and its own internal viewsheds. The changes proposed in this study could alter viewsheds or change circulation patterns in a manner that

would deprive visitors from their accustomed views. Therefore, the impact topic of visual resources is considered.

Transportation, Site Access, and Circulation

Historically, transportation, site access, and circulation have been problematic issues in New York City, Gateway, and the Jamaica Bay unit. While it is understandable that a city the size of New York City would have some transportation issues, these issues have direct impacts to the park-like experience the NPS provides at Jamaica Bay. In order to improve this experience, the actions proposed in this study are designed to directly address and remediate transportation, site access, and circulation issues that exist within the Jamaica Bay unit. As these actions may alter current transportation, access, and circulation patterns, the subject is considered as an impact topic.

Visitor Use and Experience

The Jamaica Bay unit offers unique experiences to the urban environment for its visitors. The visitor experience at the unit starts and ends in parking lots, on park roads, and on local roads. Currently, deficiencies in these locations detract from the existing visitor experience. The elements proposed in this study would seek to improve these conditions in a manner that would not only address current problems but avoid future issues as the surrounding population increases. As these improvements are directed at improving the visitor use and experience, it is considered as an impact topic.

Bicycling at Floyd Bennett Field

Operations

Among the many activities performed by Gateway staff, current operations at the Jamaica Bay unit include maintenance of existing parking lots, traffic control during special events, and operation of toll booths at Jacob Riis Park. The proposals made in this study could make changes to the existing infrastructure that would require changes in operations. Therefore, the impact topic of operations is considered.

IMPACT TOPICS DISMISSED FROM FURTHER ANALYSIS

The following impact topics were considered but dismissed from further analysis because they do not exist within the study area or would not be impacted by the proposed action. They include natural and physical resources (geologic resources, prime farmland, wild and scenic rivers, wetlands, special status species, lightscapes, and hazardous materials), cultural resources (museum objects and ethnographic resources), socioeconomic resources, and infrastructure.

Natural and Physical Resources

Geologic Resources

The geology of Long Island, which includes the Jamaica Bay area, is the result of glacial activity. The geologic formations that underlie the area are not considered unique, and they consist of till, gravel, sand, and mud. The history of development in the Jamaica Bay area has resulted in these resources being buried by additional fill material or being cut into through ground-disturbing activities. The proposed action would be confined to the surface or upper layers of soil and would not reach any geologic formations. Therefore, the impact topic of geologic resources was dismissed.

Prime Farmland

Prime farmland is one of several designations made by the U.S. Department of Agriculture (USDA) to identify important farmlands in the United States. It is important because it contributes to the nation's short- and long-range needs for food and fiber. In general, prime farmland has an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, an acceptable level of acidity or alkalinity, an acceptable content of salt or sodium, few to no rocks, and permeable soils (designated as prime farmland soils). Urban and developed areas cannot be considered prime farmland. The soils within the study area are not designated as prime farmland soils, and the area is heavily developed. Therefore, the impact topic of prime farmland was dismissed.

Wild and Scenic Rivers

In 1968, Congress passed the Wild and Scenic Rivers Act to identify and protect those rivers that were deemed to possess "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values" (16 USC 1271). The NPS incorporated this law into its management policies with DO #46A, "Wild and Scenic Rivers within the National Park System." The DO directs the NPS in addressing and managing waterways within its boundaries that are classified as wild and scenic. Although there are a number of waterways within the boundaries of the Jamaica Bay unit, none are classified as wild or scenic rivers. Therefore, the impact topic of wild and scenic rivers was dismissed.

Wetlands

Executive Order 11990, "Protection of Wetlands," was issued to "…avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative...." As is its practice, the NPS implemented this Executive Order into its policies with DO #77-1, "Wetland Protection." The DO provides the NPS with guidelines for inventorying and managing wetlands within its

boundaries in an effort to achieve the goal of no net loss of wetlands. The National Wetland Inventory (NWI) identified some wetlands within the study area (NWI 1988); however, field reviews conducted by certified wetland scientists prior to and as part of the *Jamaica Bay Transportation Studies DCP/EA/AOE* could not confirm their presence (Lawler et al 1994). Therefore, the impact topic of wetlands was dismissed.

Special Status Species

The Endangered Species Act of 1978, as amended, sets rules for the protection of endangered and threatened species of plants and animals and establishes penalties for harming them or their habitat. Most of the listed species within the state of New York are aquatic animals: the northern right whale (*Eubalaena glacialis*), the humpback whale (*Megaptera novaeangliae*), the fin whale (*Balaenoptera physalus*), Kemp's Ridley sea turtle (*Lepidochelys kempii*), and the loggerhead sea turtle (*Caretta caretta*). However, all of these special status species fall well outside the study area. Two species are found within Jacob Riis Park: the federally threatened piping plover (*Charadrius melodus*) and the federally endangered roseate tern (*Sterna dougallii*). However, both of these species inhabit dunes beyond the study area. The seabeach amaranth (*Amaranthus pumilus*) is the only federally listed vegetation found within the four sites. However, it is found only on dunes, beaches, and dredge spoil. Because these conditions do not exist within the study areas, the impact topic of special status species was dismissed.

Ten state-listed species exist within the study area, and impacts to these species will be addressed under the "Vegetation" and "Wildlife and Wildlife Habitat" sections of this document.

Lightscapes

In accordance with *NPS Management Policies 2001* (NPS 2000), the NPS strives to preserve natural ambient landscapes and other values that exist in the absence of man-made light. The Jamaica Bay unit is located in one of the largest, busiest cities in the world. As a result, there are constant impacts to the lightscape, even in some of the most obscure areas, so no natural lightscapes exist within the study area. The proposed action would introduce additional light sources from vehicles traveling on new circulation paths within the Jamaica Bay unit; however, they would not measurably contribute (adversely or beneficially) to existing impacts. Therefore, the impact topic of lightscapes was dismissed.

Hazardous Materials

Many of the sites within the study area have a history of military use, refuse collection, or other activities that resulted in the use of hazardous materials. As part of this study, a Phase I Environmental Site Assessment was carried out to research existing data on the potential for hazardous materials. The Phase I also included site reconnaissance of the study areas to ensure no unknown sources existed and to confirm the location of known sources. The site assessment revealed that no unknown sources of hazardous materials existed within the study areas, and the known sources were in isolated locations that would in no way hinder or be impacted by the proposals made in this DCP/EA/AOE. Therefore, the impact topic of hazardous materials was dismissed.

Cultural Resources

Museum Objects

The NPS defines a museum object as "a material thing possessing functional, aesthetic, cultural, symbolic, and/or scientific value, usually movable by nature or design. Museum objects include prehistoric and historic objects, artifacts, works of art, archival material, and natural history specimens that are part of a museum collection" (DO #28). The proposed action would not include any design for storage and/or display of museum collections. Further, it would not encompass any structures where museum collections are currently stored or displayed. Potential objects discovered at the site would be addressed under the impact topic of "Archeological Resources." Therefore, the impact topic of museum objects was dismissed.

Ethnographic Resources

Ethnographic resources are defined as any "site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it" (DO #28). An ethnographic resource eligible for listing on the National Register is known as a traditional cultural property. Based on an NPS regional database, ethnographic resources are present at Gateway. These resources include the community gardens at Floyd Bennett Field. Despite proposed improvements at the Field, the changes to access and circulation around this resource would not have a noticeable impact to its role as an ethnographic resource. Likewise, the entire Floyd Bennett Field landscape is also considered an ethnographic resource. Impacts to this landscape are included in the cultural resource section of this document. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001) would be followed.

Socioeconomic Resources

The proposed action would neither change local and regional land-use nor appreciably impact local businesses or other agencies. Implementing the proposed action could result in a marginal boost to the local economy (e.g. minimal increases in employment opportunities for the construction workforce and revenues for local businesses and government generated from construction activities and workers). Any increase however, would be temporary, lasting only as long as construction. Therefore the impact topic of socioeconomic resources was dismissed.

Environmental Justice

Executive Order 12898, "General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental impacts of their programs and policies on minorities and low-income populations and communities. This proposed action encompasses stabilization of the shoreline and bluff area and would not displace any minorities or low-income populations. The proposed action would also not have disproportionately high and adverse health or environmental impacts on minorities or low-income

populations or communities as defined in the EPA's *Draft Environmental Justice Guidance*. Therefore, the impact topic of environmental justice was dismissed.

Infrastructure

A large, urban park like Gateway requires a great deal of infrastructure to provide heat, light, water, sewage, and other utilities. Infrastructure elements also consist of the buildings, roads, parking lots, and other structures that make up the park. In order to successfully improve transportation, site access, and circulation within the Jamaica Bay unit, this study makes proposals to add, remove, or modify existing transportation infrastructure. Because these changes are confined to transportation infrastructure, they are addressed under the "Transportation, Site Access and Circulation" section of this document. Therefore, the impact topic of infrastructure was dismissed.

REGULATORY, MANAGEMENT, AND LEGISLATIVE CONCERNS

Implementation of the *Jamaica Bay Transportation Studies DCP/EA/AOE* should not require any changes to existing legislation or management policies. The NPS will continue to coordinate with the NYCDOT and NYCDPR through the design and implementation of the proposed actions. The implementation of the proposed actions will also require appropriate local and state land disturbance permits to complete the development activities that are located outside of NPS property.