

**US Department of the Interior
National Park Service, Northeast Region**

FINDING OF NO SIGNIFICANT IMPACT

**Relocation of Hurricane Sandy Damaged Maintenance Facilities to More Sustainable
Locations within the Staten Island Unit
Gateway National Recreation Area, Staten Island Unit
Richmond County, New York**

INTRODUCTION

The National Park Service (NPS) proposes to permanently relocate maintenance operations that were damaged during Hurricane Sandy within the Staten Island Unit of the Gateway National Recreation Area (Gateway). Hurricane Sandy reached New York City on October 29, 2012, resulting in substantial flood damage to maintenance facilities and equipment within the Staten Island Unit, and a drastic reduction in operational efficiency. This project will make the Staten Island Unit maintenance facilities resilient to coastal storm surges and flooding through relocation to more sustainable locations out of the 100-year floodplain and reusing and/or repurposing some existing facilities to improve the efficiency of park maintenance and recovery operations.

The NPS prepared an Environmental Assessment (EA) that evaluated a no-action alternative and one action alternative and analyzed the potential impacts that would result from the implementation of these alternatives on the natural, cultural, and human environment. The *Relocation of Hurricane Sandy Damaged Maintenance Facilities to More Sustainable Locations within the Staten Island Unit* (2015) was prepared in accordance with National Environmental Policy Act and its implementing regulations (40 CFR 1500-1508.9); and with NPS Director's Order #12: *Conservation Planning, Environmental Impact Analysis, and Decision-Making* (2011) and accompanying DO-12 Handbook (2001)

During preparation of the EA, the NPS consulted with federal and state agencies, tribes, interested and affected parties, and the general public. The EA was made available for a 30-day review period, during which one public meeting was held. No changes were made to the environmental assessment or the selected alternative as a result of comments.

SELECTED ACTION

Based on the analysis presented in the EA, the NPS has selected the action alternative, Relocation of Hurricane Sandy Damaged Maintenance Facilities to more Sustainable Locations within the Staten Island Unit, which is the NPS preferred alternative, for implementation. The NPS selected alternative was described on pages 19 to 23 of the EA. Graphics illustrating the proposed plan are provided on pages 20 and 23 of the EA. The NPS selected alternative will include the following elements:

Fort Wadsworth

Under the NPS selected alternative, the NPS will construct an outdoor covered parking structure at the existing NPS maintenance facility at Fort Wadsworth. The new structure will be located directly behind Building 302 along the eastern edge of the NPS vehicle/equipment storage lot. The structure will be located inside the existing chain link perimeter/security fence that currently encompasses the maintenance facility. Access to the structure will be provided by the entry gate off of USS Tennessee Road between Buildings 303 and 310. The structure will be appropriately sized to provide the capacity to accommodate six (6) maintenance vehicles. Its dimensions will be approximately 60 feet in width, 20 feet in depth, and 20 feet in height. Each vehicle bay will be approximately 10 feet wide. The roof of the structure will likely be constructed using a hurricane-resistant roof covering. In addition, the existing asphalt at the site will be removed and a concrete pad will be installed for the vehicle bays. Lighting will be installed under the canopy of the structure and new electric power supply will also be provided.

The NPS selected alternative also includes the adaptive reuse of some existing NPS maintenance facilities at Fort Wadsworth. The goals of adaptive reuse will be to consolidate maintenance functions, thereby reducing space requirements for certain functions at the facility; creating additional indoor and outdoor storage capacity for vehicles, equipment, and materials; and improving the overall efficiency of park maintenance and recovery operations. Park staff has identified several opportunities to adaptively reuse and/or repurpose facilities to meet these goals including the reallocation of space in Buildings 301, 303, and 309 for NPS maintenance needs; the consolidation of maintenance functions in Buildings 301 and 310; and increasing outdoor storage area by expanding into the vehicle/equipment storage lot on the east side of Building 302.

Miller Field

Under the NPS selected alternative, the NPS will construct a permanent maintenance facility on approximately 2.0 acres at the southwest corner of Miller Field. The facility will include a small equipment repair and storage facility; administrative office with lockers and restrooms; an outdoor covered vehicle/equipment storage area with lighting and electric power supply; an outdoor uncovered storage area; hazardous materials storage; vehicle parking for staff and visitors; a fueling station; a vehicle wash area; and access improvements. The facility will also include a building to be used by park rangers for equipment and miscellaneous storage.

The NPS will implement a “roundabout” into the facility design to provide access to the maintenance facility at the existing entrance to the NPS parking lots off of New Dorp Lane. The roundabout will provide shared vehicle access to New Dorp Lane, the NPS parking lots, and the proposed NPS maintenance facility. A roundabout will allow for a continuous flow of vehicles into and out of the NPS parking lots using yield controls, and will provide a safer entry and exit from the maintenance facility. To improve circulation through the maintenance facility, access will also be provided by constructing a road that will connect the new facility to NPS Parking Lot #2. Approximately 16 parking spaces will be removed from NPS Parking Lot #1 and one (1) space will be removed from NPS Parking Lot #2 to accommodate the new access roads. Both access roads will be asphalt paved and each will provide two-way traffic for NPS maintenance staff and equipment circulation. In addition, swing gates will be installed at each access road to

prevent unauthorized vehicle entry into the facility. Furthermore, designated pathways and crosswalks will be incorporated into the facility design to direct pedestrians safely from the NPS parking lots to the athletic fields.

The NPS will construct the facility to be resilient to extreme weather conditions, such as high wind speeds and excessive salt spray. Hurricane-resistant construction techniques will be used and facility designs will take into account the latest NPS guidance addressing climate change and natural hazards in facility planning. Also, the NPS will incorporate energy efficient heating, air conditioning, and lighting systems into the facility design.

The new maintenance facility at Miller Field will include hazardous materials storage. The types of materials that will be stored include oil, transmission fluid, brake fluid, pesticides and fertilizer. All hazardous materials will be stored in accordance with OSHA guidelines.

In order to secure the facility, the NPS will use a transparent fencing assembly to deter unauthorized access and vandalism of the facility. The NPS is proposing to use anti-climb fence technology versus the traditional chain link and barbed wire. The NPS will consider fence solutions that are the least intrusive from an aesthetics standpoint.

The NPS will prepare and implement a landscape plan after the new facilities are constructed and site restoration activities begin. The landscape plan will include the replacement of any trees that will be removed during construction with the same or similar species that are native to the northeastern United States. The landscape plan will also include supplemental plantings of trees and shrubs, as appropriate, around the facility. Plantings may be strategically placed for aesthetic purposes as a part of the facility design or to screen the facility from the athletic fields or residences on New Dorp Lane.

Stormwater management will also be included in the design of the new maintenance facility at Miller Field. The NPS will incorporate various techniques for stormwater management including the construction of inlets and pipes to connect the maintenance facility to existing stormwater infrastructure in the area, and low impact development techniques such as drainage swales, bioretention areas, or infiltration basins.

The NPS will construct a fueling station at the new maintenance facility that will include a 1,000 gallon above-ground fuel storage tank and fuel dispensing system. The fueling station will be designed in accordance with all appropriate Federal Emergency Management Agency (FEMA) and NPS guidelines for the construction of fuel storage within the regulatory floodplain. In addition, the fuel storage tank and dispensing system will be surrounded with bollards, or similar barriers, as a safety measure to protect the tank from potential vehicle collisions. The bollards will also serve as a fire protection/prevention measure in addition to an automatic system shut-off system that will be incorporated into the fueling station.

MITIGATION MEASURES

The selected alternative incorporates the mitigation measures and best management practices listed in appendix A. Most of the mitigation measures are related to the temporary adverse

impacts resulting from construction activities. This list provides a framework for mitigation measures that will be included in the contractor's specifications. Additional mitigation measures and best management practices could be added to this list at the discretion of the NPS.

FINDING OF NO SIGNIFICANT IMPACT

As described in the EA, adverse impacts to floodplains, historic structures and districts, visitor use and experience, local roads and park access, and noise are likely to occur as a result of implementing the NPS selected alternative; however, no significant impacts were identified.

At Miller Field, the NPS selected alternative will be constructed within the 500-year floodplain of the Lower New York Bay and the construction of the permanent maintenance facility will disturb approximately 2.0 acres and increase impervious surface area by 1.25 acres. To minimize impacts to the floodplain, the NPS will implement mitigation measures, as provided on page 24 of the EA and in Appendix A under Floodplains. These include the restoration of disturbed areas through vegetation establishment and the implementation of stormwater management into the design of the facility, as appropriate. To ensure the facility is resilient to future coastal storms, structures will be elevated to a minimum of two feet above the 100-year regulatory floodplain elevation, and critical systems (i.e. heating and air conditioning units, fire protection, security, computers, etc.) and the fuel storage tank and its components will be elevated to a minimum of three feet above the 100-year regulatory floodplain elevation, which is equal to or greater than the water surface elevation of the 500-year flood. The implementation of these measures, and the small scale of the project, will keep adverse impacts to floodplains at Miller Field at a minimal level. The project area at Fort Wadsworth is located well above floodplain elevations and will therefore not have any impact on floodplains.

Construction of an outdoor covered parking structure at Fort Wadsworth would introduce a new structure within the Fort Wadsworth Historic District, which would cause an adverse impact to the district, but this impact will be very small as the low-profile structure will be designed to be consistent in character with other buildings in the historic district and will be visible from few vantage points along either Battery or Loop Roads. The renovations to buildings 301, 302, 305, 309, and 310 will be in keeping with the Secretary of the Interior's Standards for the Treatment of Historic Properties, leading to negligible adverse impacts, if any, from removal or replacement of historic fabric. The new maintenance facility at Miller Field will have no adverse impact on the Miller Army Airfield Historic District because the new construction is at a distance from the district, and the addition of new buildings to the urban surroundings of Miller Field would not result in a noticeable change in the viewshed of the historic district.

There will be temporary adverse impacts associated with construction activities to visitor use and experience, noise, and local roads and access at Fort Wadsworth and Miller Field. Construction vehicles and activity may cause elevated levels of noise and temporary park road closures or detours, and may increase traffic, particularly during peak commuter periods and during seasonal peak park use periods, all of which could also diminish the visitor experience. However, due to planned mitigation measures (described in appendix A), the relatively small scale of the project, and the temporary nature of construction, such effects are expected to be minimal. There will be

a long-term loss of seventeen parking spaces at Miller Field, but public parking will still be available at other locations at Miller Field and on numerous roads surrounding the park.

In summary, the selected alternative will not have a significant effect on the human environment. There are no significant impacts on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the NPS selected alternative will not violate any federal, state, or local environmental protection law. Based on the foregoing, it has been determined that an environmental impact statement is not required for this action and thus will not be prepared.

DECISION REACHED AND RATIONALE

The NPS has selected the proposed action alternative, Relocation of Hurricane Sandy Damaged Maintenance Facilities to More Sustainable Locations within the Staten Island Unit, for implementation as described in this Finding of No Significant Impact.

Relocating maintenance facilities out of the floodplain will support the Gateway maintenance staff and equipment while greatly reducing the potential for substantial damage during future catastrophic coastal storm surge or flood events. The new facility at Miller Field is designed to accommodate only the necessary day-to-day maintenance functions for the Field and larger equipment will be stored at the new covered parking shelter at Fort Wadsworth; this allows the size of the new facility at Miller Field to be kept to a minimum, as well as its impacts on the environment. The adaptive reuse of buildings 310, 302, 305, 309, and 310 at Fort Wadsworth will keep historic buildings in active use, while respecting their historic form and characteristics.

For these reasons and in consideration of the likely environmental impacts described in this Finding of No Significant Impact, I have decided to select the proposed action alternative, the NPS Preferred Alternative for implementation.

Recommended:  2-26-16
Jennifer T. Nersesian, Superintendent Date

Approved:  3-11-16
Michael A. Caldwell, Regional Director Date
Northeast Region, National Park Service

Appendix A Mitigation Measures and Permits and Approvals Needed
Appendix B Agency and Tribal Consultation
Appendix C Public Involvement and Comments Received on the EA
Appendix D Non-Impairment Determination
Appendix E Final Floodplain Statement of Findings

ATTACHMENT A

MITIGATION MEASURES AND PERMITS AND APPROVALS NEEDED

To prevent and minimize environmental impacts related to the action alternative, the NPS will implement best management practices and mitigation measures will be implemented during the construction and post construction phases of the project. General and resource specific best management practices and mitigation measures are listed below by impact topic. This list provides a framework for mitigation measures that will be included in the contractor's specifications; future mitigation measures could be added to this list at the discretion of the NPS. Furthermore, the state and federal permits that will be required before this project proceeds with construction will likely include a variety of conditions specifically related to the protection of water quality and cultural resources from additional construction-related impacts. A list of expected permits is included at the end of this appendix.

Various best management practices will be adopted as part of the selected alternative and will be incorporated into design plans and specifications, providing a contractual requirement that any contractor retained for any phase of the action that will abide by the conditions and procedures identified in this document and permits. Those typical mitigation measures that could be applied are described below. Mitigation measures will be refined as the design of the project develops and as permit conditions are defined by the regulatory agencies.

FLOODPLAIN

- Elevate all structures to a minimum of two feet above the Base Flood Elevation (BFE) (i.e. the 100-year regulatory floodplain elevation) (BFE+2) as identified in the 2013 Preliminary Flood Insurance Study (FIS) for Richmond County (FEMA 2013).
- Elevate critical systems (i.e. heating and air conditioning units, fire protection, security, computers, etc.) and the fuel storage tank and its components to a minimum of three feet above BFE (BFE+3) as identified in the 2013 Preliminary FIS for Richmond County (FEMA 2013), which is equal to or greater than the water surface elevation of the 500-year flood.
- Restore disturbed areas through vegetation establishment using NPS-approved native seed mixes and plantings.
- Implement stormwater management into the design of the facility, as appropriate, to store and convey stormwater to existing stormwater infrastructure.

HISTORIC STRUCTURES AND DISTRICTS

- Locate the outdoor covered parking structure at Fort Wadsworth to partially conceal the structure behind existing buildings and out of sight of park visitors.

- Design the height of the outdoor covered parking structure at Fort Wadsworth so the structure will not protrude above the other maintenance buildings.
- Complete improvements to existing facilities in accordance with the Secretary of the Interior's *Standards for the Treatment of Historic Properties* (NPS 1995) in order to avoid and/or minimize any adverse impacts.
- Develop and coordinate context-sensitive facility designs with the NY SHPO and other parties as appropriate.

ARCHEOLOGICAL RESOURCES

- Initial site preparation work at Miller Field will be monitored to assure the NY SHPO of the absence of impacts to archeological resources during construction.

VISITOR USE AND EXPERIENCE

- Notify park visitors and neighbors in advance of any construction activities that will result in temporary road closures or parking restrictions.
- Perform construction Monday through Friday, and/or during other off-peak visitor use periods, if possible, to lessen the impact on park visitors.
- Maintain access to athletic fields, parking, and other facilities at Miller Field throughout construction.
- Identify strategies to reduce potential conflicts between park visitor uses, park access and parking availability, and the daily operations required to maintain the athletic fields and other facilities at Miller Field.

LOCAL ROADS AND PARK ACCESS

- Implement a roundabout into the facility design for the proposed maintenance facility at Miller Field to increase the safety characteristics of the shared vehicle access to New Dorp Lane, the NPS parking lots, and the proposed maintenance facility.
- Incorporate designated pedestrian pathways and crosswalks into the design of the proposed maintenance facility at Miller Field to ensure pedestrian safety.
- Install signs to mark pedestrian crosswalks and pathways, assist motorists to understand proper circulation through the roundabout, and other traffic patterns, and warn motorists and pedestrian of shared access with maintenance vehicles and equipment.
- Install swing gates at both entrances to the proposed maintenance facility at Miller Field to prevent unauthorized vehicle access.
- Notify park visitors and neighbors in advance of any construction activities that will result in temporary road closures or parking restrictions.
- Implement measures to ensure a safe and continued flow of traffic during construction such as marked detour routes if lane or sidewalk closures are needed, electronic signs on

approaches to construction areas to notify motorists and pedestrians of construction activities, and the use of flagmen to allow safe access and traffic movements when equipment is being used near roadways or when materials are being delivered.

- Post notices to the park website to inform the public of the construction schedule and any changes in park access, parking availability, or circulation.
- Identify strategies to reduce potential conflicts between park visitor uses, park access and parking availability, and the daily operations required to maintain the athletic fields and other facilities at Miller Field.

NOISE

- Schedule construction to minimize impacts on adjacent noise sensitive resources.
- Use best available noise control techniques.
- Use hydraulically or electrically powered tools.
- Locate stationary noise sources as far from sensitive resources as possible.
- Develop a noise mitigation plan that will comply with all federal, state, and local noise control laws and regulations.

APPENDIX B

AGENCY AND TRIBAL CONSULTATION

Section 7 Consultation

According to the US Fish and Wildlife Service's list of federally endangered and threatened species and candidate species in New York, except for occasional transient individuals, no federally listed or proposed endangered or threatened species, or candidate species under the jurisdiction of the US Fish and Wildlife Service are known to exist in Richmond County, NY. Therefore, because no federally listed rare, threatened, and endangered species are anticipated to be affected by the project, no further coordination with the US Fish and Wildlife Service is required.

Section 106 Consultation

Consultation with the New York State Historic Preservation Office (NY SHPO) was conducted in accordance with Section 106 of the National Historic Preservation Act. On September 22, 2014, a letter was sent to the New York State Division for Historic Preservation initiating the Section 106 consultation process on potential effects to historic properties. The NY SHPO concurred with the NPS proposal to conduct archaeological monitoring of ground disturbing activities during construction at Fort Wadsworth to identify and record any archeological resources (features or artifact concentrations) present. At the Miller Field project area, the NPS determined that there was a potential for archeological resources, and a Phase I archeological survey was conducted to determine if archeological resources are present. One archeological site was discovered – the buried foundation walls of the Vanderbilt stables. This site will be protected and fenced prior to construction as a precaution and the area will be avoided. The NPS made a determination of no adverse effect to historic properties on January 4, 2016; the NY SHPO concurred with that determination on February 8, 2016.

Tribal Consultation

The park initiated tribal consultation on September 22, 2014, by letters to the Delaware Nation, the Delaware Tribe of Indians, and the Stockbridge-Munsee Mohican Tribal Community. The Delaware Tribe Historic Preservation Representatives and the Stockbridge-Munsee Mohican Tribal Historic Preservation Office requested continued consultation with NPS as the project progresses. The Delaware Nation Cultural Preservation Office stated that the location of the project does not endanger cultural or religious sites and that the project should continue as planned; however, if archaeological sites or objects are uncovered, construction should stop until the appropriate state agencies and tribal organizations are consulted.

Sensitive Species

The NPS sent a letter to the New York State Department of Environmental Conservation, New York Natural Heritage Program, on September 22, 2014, requesting information regarding state-listed rare, threatened, or endangered plant or animal species, significant natural communities, and/or other environmentally sensitive areas within the project boundaries. Based on a review of the Gateway GMP/EIS, no state-listed rare, threatened, and endangered species are anticipated to be affected by the proposed project at Fort Wadsworth or Miller Field. Therefore, no further coordination with the Natural Heritage Program is required.

Coastal Zone Management Act, Federal Consistency Determination

The NPS completed its federal Coastal Zone Management Consistency Review and consultation, pursuant to the Coastal Zone Management Act, as amended, with the New York State Department of State, Office of Coastal, Local Government and Community Sustainability, Consistency Review Unit. A Federal Consistency Determination for the construction of a new permanent maintenance facility at Miller Field and an outdoor covered parking structure at Fort Wadsworth was submitted to the Consistency Review Unit along with the EA on May 18, 2015. In a response letter dated June 29, 2015, the Consistency Review Unit concurred with the determination and stated that “the proposed activities will not result in any reasonably foreseeable effects to land and water uses and/or natural resources of the coastal area.”

NPS Director’s Order #77-2: Floodplain Management

Pursuant to NPS Director’s Order #77-2: Floodplain Management (2003) and accompanying Procedural Manual #77-2 (2003), a Draft Floodplains Statement of Findings was prepared and circulated with the EA. The Draft Floodplains Statement of Findings summarizes the floodplain development associated with actions to relocate maintenance facilities to more sustainable locations within the Staten Island unit of the park. The Draft Floodplains Statement of Findings also describes the reasons why encroachment into the floodplain is required to implement the project, the site-specific flood risks involved, and the measures that will be taken to mitigate floodplain impacts. No comments were received on the Draft Floodplains Statement of Findings and no changes have been made. A Final Floodplains Statement of Findings is attached as appendix E.

APPENDIX C

PUBLIC INVOLVEMENT AND COMMENTS RECEIVED

The interested public and agencies were provided an opportunity to review and comment on the environmental assessment during a 30-day review period from May 25, 2015 through June 26, 2015. Availability of the environmental assessment was announced on the NPS Planning, Environment and public Comment (PEPC) website and through a press release, which was published on May 22, 2015. In addition, an open house public meeting was held at Fort Wadsworth Visitor Center, Staten Island, NY on June 11, 2015. A total of three (3) public correspondences were received during the public comment period. Two of the correspondences regarded another project not within the scope of this EA. The third correspondence expressed a desire for any new construction at Miller Field to be sensitive to its surroundings and neighbors, as well as the history of Miller Field. Some commenters provided recommendations to address design features that the NPS will take into consideration during the final design stages of the parking facilities at Miller Field and implementation of the selected alternative.

APPENDIX D

NON-IMPAIRMENT DETERMINATION

By enacting the NPS Organic Act of 1916 (Organic Act), Congress directed the US Department of Interior and the NPS to manage units “to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations” (16 USC § 1). Congress reiterated this mandate in the Redwood National Park Expansion Act of 1978 by stating that NPS must conduct its actions in a manner that will ensure no “derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress” (16 USC 1a-1).

NPS Management Policies 2006, Section 1.4.4, explains the prohibition on impairment of park resources and values:

While Congress has given the Service the management discretion to allow impacts within parks, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the Park Service must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the Organic Act, establishes the primary responsibility of the Nation Park Service. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.

The NPS has discretion to allow impacts on Park resources and values when necessary and appropriate to fulfill the purposes of a Park (NPS 2006 sec. 1.4.3). However, the NPS cannot allow an adverse impact that would constitute impairment of the affected resources and values (NPS 2006 sec 1.4.3). An action constitutes an impairment when its impacts “harm the integrity of Park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values” (NPS 2006 sec 1.4.5). To determine impairment, the NPS must evaluate “the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts” (NPS 2006 sec 1.4.5).

This determination on impairment has been prepared for the selected alternative described in this FONSI. An impairment determination is made for all resource impact topics analyzed for the selected alternative. An impairment determination is not made for visitor use and experience, local roads and park access, and noise because impairment findings relate back to park resources and values, and these impact areas are not generally considered to be park resources or values according to the Organic Act, and cannot be impaired in the same way that an action can impair park resources and values.

Floodplain

The NPS selected alternative will result in adverse impacts to the 500-year regulatory floodplain of Lower New York Bay based on the construction of a permanent maintenance facility at the

southwest corner of Miller Field. Construction of the new maintenance buildings, parking and access improvements, and stormwater management will result in approximately 2.0 acres of disturbance and an increase of approximately 1.25 acres of impervious area within the floodplain. The increase in impervious area will reduce the infiltration capacity of the floodplain, and the addition of buildings and other structures will decrease the flood storage capacity and the ability of the floodplain to transport flood waters. The construction of an outdoor covered parking structure at Fort Wadsworth under the NPS selected alternative will not occur within the 100-year or 500-year regulatory floodplain.

The NPS selected alternative will not result in impairment of the floodplain because of the relatively small-scale of the project and because the NPS will design the facility in accordance with the latest FEMA and NPS guidelines addressing climate change and natural hazards, including as sea level rise. The NPS will implement mitigation measures, including the restoration of disturbed areas through vegetation establishment and the implementation of stormwater management into the design of the facility, as appropriate. To ensure the facility is resilient to future coastal storms, structures will be elevated to a minimum of two feet above the 100-year regulatory floodplain elevation, and critical systems (i.e. heating and air conditioning units, fire protection, security, computers, etc.) and the fuel storage tank and its components will be elevated to a minimum of three feet above the 100-year regulatory floodplain elevation, which is equal to or greater than the water surface elevation of the 500-year flood.

Historic Structures and Districts

The NPS selected alternative will result in adverse impacts to the Fort Wadsworth National Register Historic District from the construction of an outdoor covered parking structure within the historic “Seabee Complex.” Buildings within the complex, including Buildings 301, 302, 305, 309, and 310, contribute to the significance of the Fort Wadsworth National Register Historic District. The outdoor covered parking structure will be constructed near Battery Barry, which is also a contributing structure to the Fort Wadsworth National Register Historic District. In addition, the adaptive reuse of existing maintenance facilities will require modifications to these facilities, which are contributing resources to the Fort Wadsworth National Register Historic District. The construction of a permanent maintenance facility at Miller Field will not result in adverse impacts to the Miller Army Airfield National Register Historic District due to the distance from the new facility to the historic district and because the addition of new buildings to the urban surroundings of Miller Field will not result in a noticeable change in the viewshed of the Historic District.

The NPS selected alternative will not result in impairment of historic resources because there will be no changes in character that will be a detriment to the Historic District or its contributing resources. The NPS maintenance facility has historically served utilitarian functions as a motor pool and maintenance facility and the construction of an outdoor covered parking structure for maintenance vehicles and equipment will provide a function that will be consistent with historical uses. The location of the outdoor covered parking structure will be concealed from most vantage points along Battery Road and partially concealed from Loop Road by an existing forested corridor. The height of the structure will be determined based on the specific equipment to be stored beneath the structure and efforts will be made to ensure the structure will not extend

above the existing buildings. The structure will be designed to be consistent in character with the other buildings at the maintenance facility. In addition, the outdoor covered parking structure will add a new element within the viewshed of Battery Barry, but the structure will not be out of character from the existing maintenance buildings that are within sight of the battery.


Modifications to existing facilities in order to adaptively reuse these facilities will also not result in impairment of historic resources because any changes made to the existing facilities at Fort Wadsworth to accommodate new uses will be consistent with the historical character of the buildings. Also, modifications to the buildings will have limited impacts because previous modifications to the interior spaces of the buildings have removed most of the original building materials. Any modifications to the interior and exterior of existing facilities to adaptively reuse and/or repurpose space to consolidate functions, increase storage area, or increase operational efficiency will be completed in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (NPS 1995) and the NPS will implement context sensitive designs, which will be developed in consultation with the NY SHPO, to minimize adverse impacts to historic resources to the greatest extent possible.

APPENDIX E

FINAL FLOODPLAIN STATEMENT OF FINDINGS

FINAL FLOODPLAIN STATEMENT OF FINDINGS
RELOCATION OF HURRICANE SANDY DAMAGED MAINTENANCE FACILITIES
TO MORE SUSTAINABLE LOCATIONS WITHIN THE STATEN ISLAND UNIT
Gateway National Recreation Area, Staten Island Unit
Richmond County, New York

Recommended:



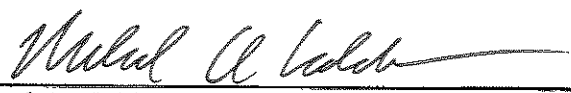
Jennifer T. Nersesian, Superintendent, Gateway National Recreation Area 2.4.2016 Date

Certified for Technical Accuracy and Servicewide Consistency:



Chief, Water Resources Division 2/10/2016 Date

Approved:



Michael A. Caldwell, Regional Director, Northeast Region 3/11/2016 Date

STATEMENT OF FINDINGS

INTRODUCTION

Executive Order 11988 (Floodplain Management) requires the National Park Service (NPS) and other federal agencies to evaluate the likely impacts of actions in floodplains. NPS Director's Order 77-2: *Floodplain Management* and Procedural Manual 77-2 provide NPS procedures for complying with Executive Orders 11988.

The NPS proposes to permanently relocate maintenance operations that were damaged during Hurricane Sandy within the Staten Island Unit of the Gateway National Recreation Area (Gateway). This Statement of Findings (SOF) for Floodplains was prepared per Director's Order 77-2: *Floodplain Management* for the proposed construction of a permanent maintenance facility at Miller Field within the 500-year regulatory floodplain of Lower New York Bay. The NPS requires the preparation and approval of a SOF for any proposed action that is located within a defined regulatory floodplain "when it is not practicable to locate or relocate development or inappropriate human activities to a site outside and not affecting the floodplain... (NPS 2003)" The proposed action at Miller Field also includes the installation of a 1,000 gallon fuel storage tank within the 500-year regulatory floodplain. The construction of fuel storage facilities within the 500-year regulatory floodplain is considered a "critical action" that is subject to floodplain policies and procedures (NPS 2003). This Floodplain SOF documents compliance with the NPS floodplain management procedures.

PROPOSED ACTION

Under the proposed action alternative, the NPS would construct a permanent maintenance facility on approximately 2.0 acres at the southwest corner of Miller Field (see **Attachment 1**). The facility would include a small equipment repair and storage facility; administrative office with lockers and restrooms; an outdoor covered vehicle/equipment storage area with lighting and electric power supply; an outdoor uncovered storage area; hazardous materials storage; vehicle parking for staff and visitors; a fueling station; a vehicle wash area; and access improvements. The facility would also include a building to be used by the park rangers for equipment and miscellaneous storage (see **Attachment 2**).

The NPS would implement a "roundabout" into the facility design to provide access to the maintenance facility at the existing entrance to the NPS parking lots off of New Dorp Lane. The roundabout would provide shared vehicle access to New Dorp Lane, the NPS parking lots, and the proposed NPS maintenance facility. A roundabout would allow for a continuous flow of vehicles into and out of the NPS parking lots using yield controls, and would provide a safer entry and exit from the maintenance facility. To improve circulation through the maintenance facility, access would also be provided by constructing a road that would connect the new facility to NPS Parking Lot #2. Approximately 16 parking spaces would be removed from NPS Parking

Lot #1 and one (1) space would be removed from NPS Parking Lot #2 to accommodate the new access roads. Both access roads would be asphalt paved and each would provide two-way traffic for NPS maintenance staff and equipment circulation. In addition, swing gates would be installed at each access road to prevent unauthorized vehicle entry into the facility. Furthermore, designated pathways and crosswalks would be incorporated into the facility design to direct pedestrians safely from the NPS parking lots to the athletic fields.

The NPS would construct the facility to be resilient to extreme weather conditions, such as high wind speeds and excessive salt spray. Hurricane-resistant construction techniques would be used and facility designs would take into account the latest NPS guidance addressing climate change and natural hazards in facility planning (NPS 2015a). Also, the NPS would incorporate energy efficient heating, air conditioning, and lighting systems into the facility design.

The new maintenance facility at Miller Field would include hazardous materials (hazmat) storage. The types of materials that would be stored include oil, transmission fluid, brake fluid, pesticides and fertilizer. All hazardous materials would be stored in accordance with OSHA guidelines.

In order to secure the facility, the NPS would use a transparent fencing assembly to deter unauthorized access and vandalism of the facility. The NPS is proposing to use anti-climb fence technology versus the traditional chain link and barbed wire. The NPS would consider fence solutions that are the least intrusive from an aesthetics standpoint.

The NPS would prepare and implement a landscape plan after the new facilities are constructed and site restoration activities begin. The landscape plan would include the replacement of any trees that would be removed during construction with the same or similar species that are native to the northeastern United States. The landscape plan would also include supplemental plantings of trees and shrubs, as appropriate, around the facility. Plantings may be strategically placed for aesthetic purposes as a part of the facility design or to screen the facility from the athletic fields or residences on New Dorp Lane.

Stormwater management would also be included in the design of the new maintenance facility at Miller Field. The NPS would incorporate various techniques for stormwater management including the construction of inlets and pipes to connect the maintenance facility to existing stormwater infrastructure in the area, and low impact development techniques such as drainage swales, bioretention areas, or infiltration basins.

The NPS would construct a fueling station at the new maintenance facility that would include a 1,000 gallon above-ground fuel storage tank and fuel dispensing system. The fueling station would be designed in accordance with all appropriate FEMA and NPS guidelines for the construction of fuel storage within the regulatory floodplain. In addition, the fuel storage tank and dispensing system would be surrounded with bollards, or similar barriers, as a safety measure to protect the tank from potential vehicle collisions. The bollards would also serve as a

fire protection/prevention measure in addition to an automatic system shut-off system that would be incorporated into the fueling station.

SITE DESCRIPTION

The Federal Emergency Management Agency (FEMA) is the principal source for floodplain mapping in the United States. FEMA identifies areas that are considered at high risk of flooding. Flood prone areas are located at or below Base Flood Elevations (BFE), also known as the 100-year floodplain. The 100-year flood is defined as a flood that has a 1 percent chance of being equaled or exceeded in any given year. FEMA also identifies the 500-year floodplain, which represents areas of moderate flood risk (0.2 percent chance of being equaled or exceeded in any given year). According to FEMA Flood Insurance Rate Map (FIRM) Panel 3604970328G (FEMA 2013a), the entire project area at Miller Field is located within the 500-year regulatory floodplain of the Lower New York Bay (see **Attachment 3**).

According to the effective 2007 FEMA Flood Insurance Study (FIS) prepared for Richmond County, NY, the established 1 Percent Annual Chance flood elevation (i.e. the 100-year floodplain elevation) at Miller Field is 8.7 feet and the .02 Percent Annual Chance flood elevation (i.e. the 500-year floodplain elevation) at Miller Field is 10.8 to 10.9 feet above mean sea level (FEMA 2007). Areas below this elevation are subject to wave generated coastal flooding from storm surges predominantly associated with hurricanes and nor'easters with a moderate to high level of flood risk. Since the 2007 FIS, a preliminary FIS report was issued in 2013 with a projected effective date of May 16, 2016. Data provided in this report show an increase of approximately three (3) feet in the 100-year flood elevation and approximately four (4) feet in the 500-year flood elevation within the Lower New York Bay area (FEMA 2013b). According to the 2013 preliminary FIS, the revised 1 Percent Annual Chance flood elevation (i.e. the 100-year floodplain elevation) at Miller Field is 11.8 feet above mean sea level, and the .02 Percent Annual Chance flood elevation (i.e. the 500-year floodplain elevation) is 15.3 feet above mean sea level (FEMA 2013b). The revised floodplain elevations from the 2013 FIS account for the effects of climate change on sea-level rise, coastal storm surge, etc.

Miller Field and the surrounding area are located on Staten Island's East Shore. The majority of the area consists of small businesses and residences situated on small lots in high densities, with approximately 16 people per acre (NYC 2013). Communities surrounding Miller Field are made up of a network of residential streets from Mill Road to Cedar Grove Avenue to the South and from Oldfield Street to Father Capodanno Boulevard to the Northeast. Due to the amount of development that has taken place in the past 15 years, the East Shore area of Staten Island is comprised of a vast majority of impervious surface which affects the natural functions of the floodplain (NYC 2013).

Floodplains provide a variety of benefits to natural environments and human society. Benefits provided by the floodplain at Miller Field are primarily associated with the infiltration, storage,

and transport of flood waters during storms. The coastal geomorphology at the project area is comprised of post-glacial deposits and glacial outwash plains making this area more susceptible to ongoing flooding and erosion concerns (NYC 2013).

Low Primary Frontal Dunes (PFDs) occur outside the project area in the Special Flood Hazard Area (SFHA) along the Franklin D. Roosevelt Boardwalk and New Dorp Beach. Low PFDs provide coastal flood protection and help to stabilize beaches and other coastal areas from erosive forces created by waves during storm events (FEMA 2007). During Hurricane Sandy, peak storm surges were observed with wave heights of approximately 13-15 feet from South Beach to Great Kills Harbor. Due to the timing of when the storm hit Staten Island, the sand dunes along the beaches were washed away from peak storm tides at 16 feet. In order to minimize future damage caused by increased flood elevations in coastal areas, beach nourishment as well as dune reconstruction projects have occurred as an emergency measure to protect the shoreline from future storms. In addition, floodwalls and levees are being considered as part of the New York City's Comprehensive Coastal Protection Plan, in cooperation with the US Army Corps of Engineers, which substantiates the need to minimize future flood losses (NYC 2013).

JUSTIFICATION FOR USE OF THE FLOODPLAIN

The purpose of the proposed project at Miller Field is to construct a permanent maintenance facility outside of the 100-year regulatory floodplain as identified on FEMA FIRM Panel 3604970328G (FEMA 2013a). On the FIRM Panel, the proposed project area at Miller Field is outside of the 100-year regulatory floodplain, but within the 500-year regulatory floodplain. All of Miller Field is located within either the 100-year or 500-year floodplain and therefore the most suitable location for the proposed maintenance facility would be in the area of moderate flood risk (500-year regulatory floodplain).

MITIGATION MEASURES

Avoidance and minimization measures were applied throughout the project design to reduce impacts to the floodplain. Furthermore, the NPS set out to design the facility to be resilient to flooding in accordance with the latest FEMA and NPS guidelines. As a response to climate change and the associated increased risk of coastal storm surge from sea level rise, the NPS has issued a handbook to address climate change and natural hazards. The handbook provides decision-makers with facility design and construction guidance to maximize resiliency against coastal flood risk (NPS 2015). In consideration of the latest NPS guidelines, the following mitigation measures would be implemented to minimize impacts to the floodplain and to make the maintenance facility at Miller Field resilient to coastal flooding:

- In accordance with the latest NPS guidelines, and to make the maintenance facility more resilient to flooding, the NPS would elevate all structures encompassing the facility to a

minimum of two feet above BFE (i.e. the 100-year regulatory floodplain elevation) (BFE+2) as identified in the 2013 preliminary FIS for Richmond County (FEMA 2013b).

- In accordance with the latest NPS guidelines, and to make the maintenance facility more resilient to flooding, the NPS would elevate critical systems (i.e. heating and air conditioning units, fire protection, security, computers, etc.) to a minimum of three feet above BFE (i.e. the 100-year regulatory floodplain elevation) (BFE+3) as identified in the 2013 preliminary FIS for Richmond County (FEMA 2013b). BFE+3 is equal to or greater than the water surface elevation of the 500-year flood.
- To reduce the risk of the proposed fuel storage tank from becoming dislodged and floating away during a flood, the NPS would elevate the fuel storage tank and its components (i.e. hoses) to a minimum of three feet above the BFE (BFE +3) as identified in the 2013 preliminary FIS for Richmond County (FEMA 2013b). BFE+3 is equal to or greater than the water surface elevation of the 500-year flood.
- Upon completion of any work within the floodplain, site restoration of disturbed areas would be performed including vegetation establishment using NPS-approved native seed mixes and plantings.
- Stormwater management would be implemented into the design of the facility, as appropriate, to store and convey stormwater to existing stormwater infrastructure.

CONCLUSION

In summary, although the proposed maintenance facility at Miller Field would result in an increase in impervious area that would reduce the infiltration capacity of the floodplain, and the addition of buildings and other structures would decrease the flood storage capacity and the ability of the floodplain to transport flood waters, these floodplain impacts would be minimal and would not result in adverse impacts to floodplain functions that would be detectable. Due to the small-scale of the project, no increase in flood elevations or undue risks to human health or property would occur. To minimize impacts to the floodplain and in order to make the maintenance facility resilient to flooding, the NPS would elevate all structures a minimum of two feet above the BFE (BFE+2) as identified in the 2013 preliminary FIS for Richmond County (FEMA 2013b). The NPS would also elevate critical systems and the proposed fuel storage tank a minimum of three feet above BFE (BFE +3) as identified in the 2013 preliminary FIS for Richmond County (FEMA 2013b) to minimize flood risks in accordance with the latest NPS guidelines.

The NPS finds that this proposed action is consistent with the policies and procedures of Director's Order #77-2: *Floodplain Management*.

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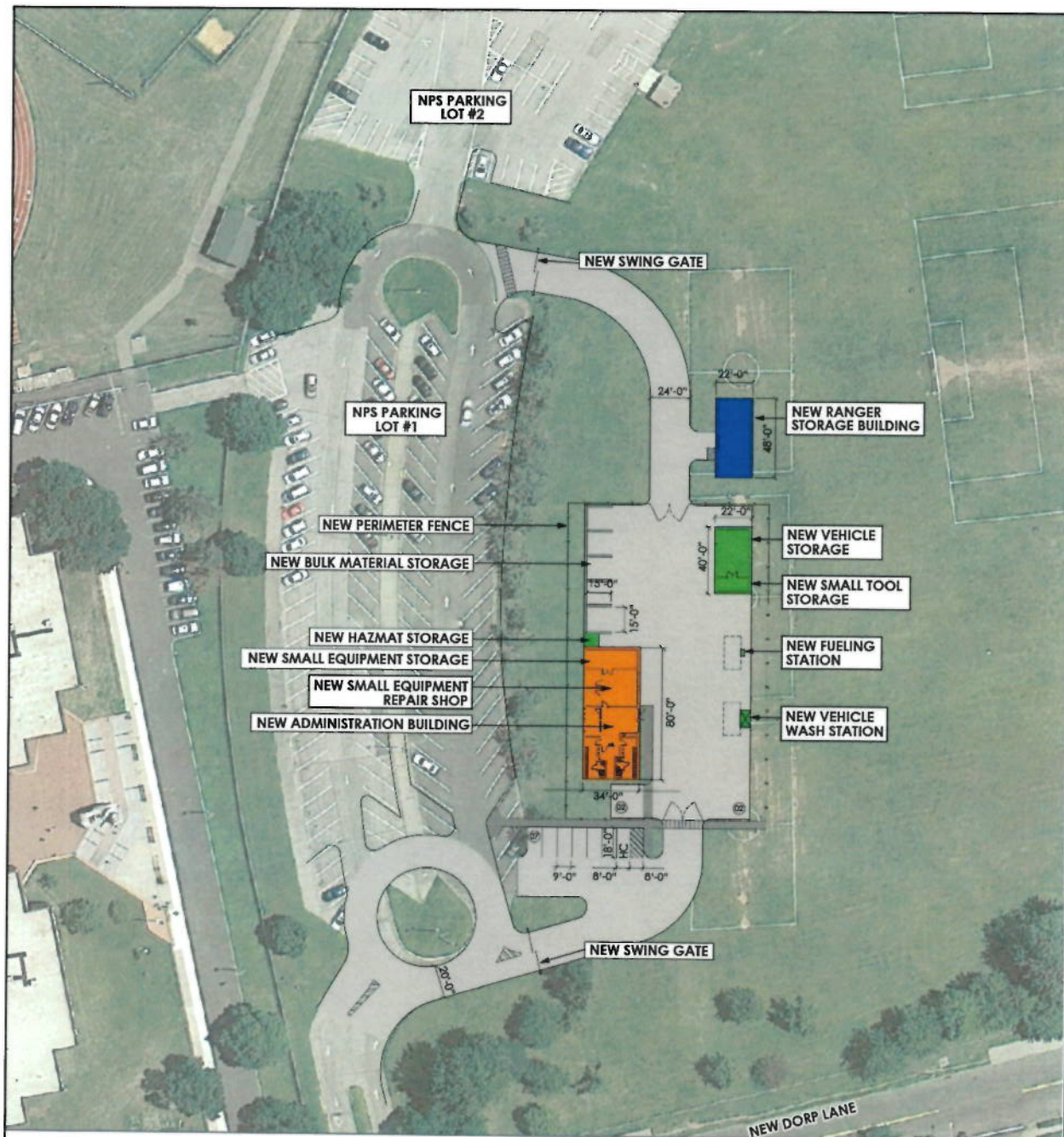
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FLOODPLAIN STATEMENT OF FINDINGS

ATTACHMENTS

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Attachment 2: Location & Layout of the Permanent Maintenance Facility

Gateway National Recreation Area
Relocation of Hurricane Sandy Damaged Maintenance Facilities
to More Sustainable Locations within the Staten Island Unit
Environmental Assessment

Legend

- Ranger Storage
- Vehicle & Hazmat Storage
- Administration & Small Equipment Repair



Data Source: NPS

