

**Statement of Findings for
Executive Order 11988, "Floodplain Management"
Everglades National Park**

**Replacement of a Communications Tower
Dr. Bill Robertson Center
Everglades National Park
Miami-Dade County, Florida**

Recommended:


Superintendent, Everglades National Park


Date

Concurred:


Chief, Water Resources Division


Date

Approved:


Director, Southeast Region


Date

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. The objectives of the executive order is to avoid to the extent possible the long-term and short-term adverse impacts associated with occupancy, modification, or destruction of floodplains and to avoid indirect support of development and new construction in such areas wherever there is a practicable alternative.

In accordance with the executive order, it is NPS policy to preserve floodplain values and minimize potentially hazardous conditions associated with flooding. If a proposed action is found to be in an applicable regulatory floodplain and relocating the action to a non-floodplain site is considered not to be a viable alternative, then flood conditions and associated hazards must be quantified as a basis for management decision making, and a formal "Statement of Findings" must be prepared. The "Statement of Findings" must describe the rationale for selection of a floodplain site, disclose the amount of risk associated with the chosen site, and explain flood mitigation plans. The "Statement of Findings" will generally be available for public review and comment by including it in applicable National Environmental Policy Act compliance documentation.

PROPOSED ACTION

The National Park Service proposes to issue a Right-of-Way permit to VERIZON WIRELESS PERSONAL COMMUNICATIONS LP, a Delaware limited partnership d/b/a Verizon Wireless (Verizon Wireless). The permit would authorize replacement of an existing radio tower (currently supporting an NPS radio repeater) with a telecommunications tower, and installation of a pre-fabricated equipment shed adjacent to an existing equipment shed at the Dr. Bill Robertson Center in Everglades National Park (ENP). The Robertson Center is located on the former Iori Farms property about 7 miles west of the main park entrance. As part of the project permit VERIZON WIRELESS is responsible for removing all equipment and facilities associated with the existing tower, and removing fill/re-grading the existing tower site to the ground elevation of the adjacent parkland. Removed fill would be transported to the nearest Hole-in-the Donut soil mound.

The Robertson Center is an established telecommunications site for the Everglades and Dry Tortugas National Parks. Construction of a 250-foot self-support tower, repeater building, and stand-by electric power source was completed in 1981. The Rohn model 65 G tower is supported on a caisson foundation with three sets of guy wires extending out 200 feet from the base and anchored by concrete piles. The tower has three park-owned, 100-watt radio repeaters, and one 10-watt repeater, which support fire management, flight following, research telemetry, and law enforcement/park operations. A Florida Power and Light antenna and repeater is located at the tower site. The existing tower has little useful life remaining and is a potential safety concern due to its age, condition and amount of equipment that it contains.

The site of the proposed action is a previously disturbed area. The proposed 100' x 100' Verizon Wireless lease area is positioned approximately 30' southeast of the existing 250-foot guyed communications tower base and approximately 190' north of an existing warehouse building for the Dr. Bill Robertson Center. The proposed Verizon Wireless improvements include a 250-foot self-support tower. The tower compound will measure 80' by 80' and include the 250-foot communications tower, Verizon Wireless communications equipment shelter with a proposed equipment shelter for NPS use. The replacement tower would support NPS communications equipment, U.S. Geological Survey equipment, Miami-Dade County Fire Rescue Equipment, FPL, Verizon Wireless cellular telephone equipment and potential collocation of three other carriers' telecommunications equipment.

A proposed 100' x 100' construction staging area is positioned immediately east of the proposed lease area. The Service Access drive will extend 220 feet northwest from an existing asphalt paved drive to

the south side of the tower compound. The proposed 12-foot wide access drive will be finished with 6 inches of crushed concrete or limerock base. Construction access will be from Long Pine Key Road through the Robertson Center drive. A 60-day construction period is anticipated for the staging, site preparation, construction of the 250-foot self-support tower construction and 250-foot guyed tower demolition activities and site restoration activities. The tower compound fence will be constructed to avoid a pre-existing well. This particular well is routinely used by Fire Management to draw water from to conduct training and test fire engine and portable pump operations. Due care will be taken to ensure that the well is not damaged during construction related activities.

This "Statement of Findings" focuses on evaluating the flood hazards for the proposed new structures in the 100-year floodplain. The "Statement of Findings" describes the flood hazard, alternatives, and possible mitigation measures for the continued use of this area.

FLOODPLAINS WITHIN THE PROJECT AREA

The tower site is on an area that has been filled to approximately 3-4' feet. In recent years several storms (hurricanes or tropical depressions) have required personnel and equipment evacuation and closure of facilities at the Dr. Bill Robertson center. These storms, coupled with high winds likely have caused minor flooding at the tower site. Most of the damage to the facilities at the Robertson Center, including the tower site, has been wind induced and not related to site flooding.

GENERAL CHARACTERIZATION OF THE NATURE OF FLOODING AND FLOODPLAIN PROCESSES IN THE AREA

The Federal Emergency Management Agency (FEMA) has not delineated the regulatory (100yr) floodplain at the proposed construction site or other nearby areas within Everglades National Park. However, for the purpose of this statement of findings, the project area is assumed to be within the regulatory floodplain. Seasonally flooded wetlands are adjacent to the project area and found throughout Everglades National Park. The entire project area is located within an existing fill pad at a slightly (estimated 1-2') higher elevation than the surrounding wetlands and does not show evidence of regular flooding. However, short duration flooding (days) may result from tropical storms and other major rain events. Due to the highly disturbed nature of the site, floodplain natural values at the site are considered to be severely degraded.

JUSTIFICATION FOR CONTINUED USE OF THE FLOODPLAIN

The Dr. Bill Robertson site was chosen for housing the replacement tower and related facilities because (a) no practicable alternate sites exist outside the floodplain, and (b) the planned structures and facilities would occur in areas of the site already impacted with development, and therefore would not introduce new impacts on floodplain values

Finding a non-floodplain site that would meet the needs of the project is exceptionally difficult. One of the project objectives is to support NPS communication and other park operational needs, but locations outside the park have reduced communication coverage. Therefore, the tower needs to be inside the park boundary. Placing the tower in the park effectively necessitates use of a floodplain site, since most of the park is within the 100-year or 500-year floodplain. Other sites inside the park were considered as part of the project scoping, but various factors weighed in favor of the Robertson center site. Foremost among them was the fact that any location for the tower would require electrical power and telephone connections, and the Robertson Center site already has both. In addition, the Robertson center site has already been disturbed and other tower locations would require new areas of land disturbance including potential impacts to federally-designated wilderness.

The park examined the feasibility of installing micro sites along the main park road, but dismissed this option as having unacceptable impacts and not meeting project needs. Using microsites would require an

additional six to eight towers at an average height of 60'. Electric and telephone equipment would also be required in addition to the towers. The towers alone would require disruption of park lands and adverse visual impacts to park visitors as well as other potential adverse impacts. Operationally, microsites are most suitable for small spaces – typically areas which can be covered within a 200-foot to 500-foot radius of the equipment. In order to provide coverage along the main park road, numerous sites/locations would be necessary to provide seamless coverage. In addition, each microsite would require a physical connection between locations, further impacting the park and disturbing new resource areas.

The NPS has determined that adverse impacts to floodplain values at the Robertson Center site would be minimal, for the following reasons:

- The tower would not attract people, and would not create a potential safety hazard in the event of a flood.
- Infrastructure would be constructed in such a way to avoid impact by periodic flooding, if/when it occurs.
- Infrastructure would not adversely affect floodplain natural values, which are already severely degraded at the site. Construction and/or operation of the tower is anticipated to have no (or negligible) adverse impacts to adjacent floodplains where floodplain natural values are less degraded.
- A hazardous spill plan and soil and groundwater management plan will be in place to prevent potential impacts to adjacent floodplains during construction of the tower.
- Fuel for the back-up power generator will be propane, minimizing the potential of a fuel spill impacting floodplain natural values adjacent to the site.
- Removal of fill from below guy-wires on existing tower will result in an improvement of floodplain natural resources at the site.

DESCRIPTION OF SITE-SPECIFIC FLOOD RISK

As noted above, the proposed tower site does not show evidence of regular flooding. When flooding does occur, it is expected to be of short duration (days) and only result from tropical storms and other major rain events. Most of the damage to the facilities within the park has been wind induced and substantial impacts to infrastructure from flooding are not expected.

In recent years, several severe storms (hurricanes or tropical depressions) have required the evacuation of personnel and equipment and facility closures. Ample notice of severe weather is provided by the National Weather Service and other agencies and ENP operates under a hurricane plan as storms develop and approach, making warning and evacuation a practical option for protection of human life.

FLOOD MITIGATION MEASURES

The early, prompt, and safe evacuation of people from the Robertson Center site is the primary flood mitigation measure available to the NPS. The situations that lead to storm-caused high water events, and the scope and duration of these events, are known by park staff, making warning and evacuation a practical option for protection of human life. Everglades National Park will continue to maintain an active hurricane evacuation plan. The plan details responsibilities of individual park employees for advanced preparedness measures at the onset of the hurricane season (June to November). These include removing or securing park property, records and utility systems during a hurricane warning; monitoring communications during a hurricane; and conducting rescue and salvage operations following a hurricane. The hurricane plan has proven effective in maintaining safety and reducing property damage during storms, and it is reviewed and updated annually.

The replacement or development facilities and infrastructure at the Robertson Center site would not expand beyond currently disturbed areas. The design of new structures would incorporate methods for

minimizing storm damage as contained in the National Flood Insurance Program's Floodplain Management Criteria for Flood-Prone Areas (44 CFR section 60.3) and in accordance with local, county or state requirements for flood-prone areas. No additional storage facilities for fuels or toxic materials are called for in the NPS preferred alternative. Natural/LP gas would be used instead of diesel as a mitigation measure to reduce potential impacts to adjacent floodplain natural values should a flood occur.

SUMMARY

The NPS has determined that there is no practicable alternative to using the Dr. Bill Robertson Center site as the location for the replacement of the park's existing communication tower. This determination is primarily based on: (1) the low risk and minimal safety concerns related to potential flooding at the sites, (2) the minimal impacts to floodplain resources and values posed by the replacement tower and related infrastructure, (3) the lack of alternate sites outside the regulatory floodplain that would meet project objectives.

The primary flood mitigation measure for the site is the existing hurricane evacuation plan for Everglades National Park. In cases where there was no hurricane, but flooding was expected to occur, there would be ample time to warn staff and visitors and use existing facilities to evacuate the area. Historically, flooding in the area has never been of a depth that would pose a serious risk of damage to the replacement tower or associated infrastructure.

Therefore, the NPS finds that the proposed action would not have any additional adverse impacts on floodplains and their associated values.

Statement of Findings References

Executive Order 11988, "Floodplain Management" (May 28, 1980). Executive Order of the President of the United States.

National Park Service, 2006. *Management Policies 2006*. National Park Service, Washington, D.C.

National Park Service, 2003. Director's Order 77-2: *Floodplain Management*. Washington Office, Washington, D.C.