



# United States Department of the Interior

NATIONAL PARK SERVICE  
1849 C Street, N.W.  
Washington, D.C. 20240

IN REPLY REFER TO:

A7216 (2552)

2 October 2014

Memo

To: Chief of Maintenance, Everglades National Park

From: Chief Radio Program Management Division, Information Resources Directorate  
*Curtis A. Alexander*

Subject: Review of Verizon Wireless Communications Right-of-Way (ROW) Application

Per your request, the Radio Program Management Division performed a technical review of the Right-of-Way (ROW) application from Verizon Wireless Incorporated. The application identifies a proposal to remove an existing telecommunications tower to be replacement of a new telecommunication tower, along with improved development of an access road and fenced compound to support multiple co-located wireless communication service providers.

Our observation and comments are noted below:

## IN REGARDS TO THE CONSTRUCTION DRAWINGS

Ground rings do not conform to Motorola R56 standards. Motorola's R56 Standard Chapter 4 Part 4.4.1.6 lists the following rules, in part:

Ground rings shall be installed in direct contact with the earth at a depth of 30 inches below grade, or below the frost line, whichever is deeper (ANSI T1.334-2002, section 5.3.1 and NFPA 70-2005, Article 250.53). Currently this is at 12 inches.

Building ground rings shall be installed at least 3 feet from the building foundation and should be installed beyond the drip line of the roof (MIL-HDBK-419A and MIL-STD-188-124B).

Tower ground rings shall be installed at least 2 feet from the tower foundation (ANSI T1.334-2002, section 5.3.1).

## IN REGARDS TO Standard Form 299 SUPPLEMENTAL RESPONSE QUESTION 18.

What procedures will be followed to protect Osprey and other nesting birds or avian species, should they be encountered on the existing tower?

What procedures will be followed to protect Osprey and other nesting birds should they be encountered on the new tower after it is constructed?

### Federal Protection

The osprey is a migratory bird protected by the Migratory Bird Treaty Act (MBTA) 16 U.S.C. Sections 703-712 of 1918 (as amended). The U.S. Fish and Wildlife Service is the federal regulatory agency authorized to enforce the provisions of this Act. All active nests (incubating adult, eggs, or young present)

of migratory bird species are also protected by the MBTA. For more information, visit the USFWS website.

Refer to the State of Florida Migratory Bird Nest removal at <http://myfwc.com/license/wildlife/protected-wildlife/#nest%20removal>

#### **IN REGARDS TO FAA STUDY 2010-ASO-6062-OE**

The radio frequencies listed in the application do not include the 30 to 500 MHz frequency range, or frequencies above 2360 MHz. The 30 to 500 MHz frequency range includes frequencies used by the National Park Service and other Federal agencies. Frequencies above 2360 are often used for microwave relay and point to point microwave links.

It is assumed that any and all existing radio equipment located on the existing tower will be moved to the new tower once it is completed.

We recommend a FAA study be performed to include the 25-500 MHz and above 2360 MHz frequency ranges.

#### **INTERMODULATION STUDY**

There is no indication of or attachment stating that an inter-modulation (IM) study has been done. An IM study can predict whether or not undesired radio frequency (RF) products will occur at a specific transmitting site. These RF products can cause harmful interference to NPS and other agencies radio transmissions.

#### **RF SAFETY AND MAXIMUM PREMISSABLE EXPOSURE (MPE)**

1 – There is no indication or attachment that predicts the ambient RF level inside of the fenced area or in proximity to the outside of the fenced area. I don't know if this is required in the ROW process. Other wireless companies have provided this data as part of their application package.

2 – There is no indication of the placement of RF Caution or Warning signs inside of or outside of the tower compound. All communication sites should conform to the FCC OET-65 guidelines. This is also a NEPA requirement.

See [http://transition.fcc.gov/Bureaus/Engineering\\_Technology/Documents/bulletins/oet65/oet65.pdf](http://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet65/oet65.pdf)

#### **CONCLUSION AND RECOMMENDATIONS**

Based on a review of the documents and information provided by Verizon Wireless for an application to construct a replacement radio tower at Everglades National Park (EVER), **this office has reservations to the granting of the Verizon Wireless ROW permit unless the following conditions are met.**

An inter-modulation (IM) study has been done to account for all transmitting stations to be placed on the tower.

Ground rings and site grounding are modified to meet Motorola R56 communications site standards. Including but not limited to fencing, gates, generator and propane tank.

Provide documents which describe the procedure for dealing with existing or future Osprey and other bird nests encountered on the radio tower(s).

Provide clarification on the need to include or not include the frequencies 25 to 500 MHz and above 2360 MHz in have the FAA study.

It is highly recommended that Verizon Wireless perform an inter-modulation (IM) study which takes into account all of the radio frequencies that will be operating at the new radio tower.

It is highly recommended that the tower owner, FCC Antenna Site Registration number (ASR), contact information, and RF safety signs be posted at the tower site in accordance with FCC OET-65 bulletin.

Should you have any questions, or need additional information on this matter please contact me, or William (Bill) Tynan, Radio Technical Services Support Team Lead at (202)-354-1429 at your earliest convenience.