

# STAFF RECOMMENDATION

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NCPC File No. 6495

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**NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION  
INSTALLATION OF PANEL ANTENNAS FOR SPRINT PCS  
Bethesda, Montgomery County, Maryland**

Submitted by the Department of the Navy

September 2, 2004

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## **Abstract**

The Department of the Navy has submitted plans for the installation of nine transmitting and receiving Sprint PCS antennas at the Naval Surface Warfare Center, Carderock Division, in Montgomery County, Maryland. The proposal would add nine panel antennas (six would be installed initially) to the existing water tower. There are approximately 30 antennas already located on the water tower for other wireless telecommunications companies. Equipment cabinets will also be added adjacent to the other providers' cabinets.

## **Commission Action Requested by Applicant**

Approval of preliminary and final building plans pursuant Section 5 of the National Capital Planning Act (40 U.S.C. § 8722(b)(1)).

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## **Executive Director's Recommendation**

The Commission:

**Approves** the preliminary and final building plans for the installation of nine transmitting and receiving antennas and associated equipment cabinets at the Naval Surface Warfare Center, Carderock Division, as shown on NCPC Map File No. 3108.10(38.00)-41409, for a period not to exceed five years.

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## PROJECT DESCRIPTION

### Site

The Naval Surface Warfare Center (NSWC), Carderock Division, occupies 184 acres immediately west of the Capital Beltway in Montgomery County. The site is bounded by Clara Barton Parkway on the west and south, and MacArthur Boulevard on the north. The water tower is located in the north central portion of the installation.

### Background

The Commission began approving cellular antennas on the water tower in 1997 (Bell Atlantic Mobile/Verizon, Cellular One and Nextel). In 2001 the Commission approved AT&T's antennas, and two years later, in 2003, the original antennas were renewed for a period of five years.

### Proposal

Sprint PCS proposes to install six panel antennas, and three future antennas, on the water tower in between the existing Nextel antennas. The panel antennas will measure 4.5 feet long by approximately 7 inches wide and 3.5 inches deep. The antennas will be painted the same color as the water tower in order to blend into the background. The antennas will be located approximately 140 feet above the ground level. The associated cabinets will be connected to the antennas by coaxial cable, which will be aligned and attached to one leg of the water tower. The two cabinets will be located adjacent to the existing carriers' cabinets on a suspended steel platform. The cabinets will measure approximately 6 feet tall, 2 feet 3 inches deep and almost 3 feet wide. The cabinets will not be visible from outside of the installation.

## PROJECT ANALYSIS

### Executive Summary

The staff recommends that the proposal be approved. The proposal is consistent with the Commission's Antenna Guidelines and with the Telecommunications Act of 1996 encouraging placement of commercial antennas on federal property. Furthermore it is consistent with the Commission's preference for collocation of antennas when possible. The antennas will be minimally visible – the panel antennas are similar in size to the other antennas on the water tower and will be painted to blend in with the tower. Although the Commission has the authority to approve the antennas for a period of ten years, staff recommends only a five-year approval because of the existing number of antennas and because of the changing technologies of cellular communication.

### Radiofrequency Radiation Analysis

The Navy has submitted information about the proposed antennas, consistent with the Commission's applicable Guidelines and Submission Requirements for Antennas. Only limited

new structures will need to be constructed on the ground surface of the NSWC adjacent to the other equipment shelter that is situated on an existing roof area and emits no RF levels.

Based on a radio frequency environmental study conducted by telecommunications consultants and the Navy, the proposed antennas will not adversely affect human health and safety. Part of the lack of potential hazards is attributed to the distance of the antennas above ground and the lack of similarly tall, habitable, nearby structures anywhere in the vicinity of the NSWC. The highly directional transmitting antennas will radiate most of the power towards the horizon rather than towards the ground. The maximum effective high level emission threshold was identified at 21 feet from the antenna. Since all proposed Sprint antenna are located at 140 feet above the ground, no adverse emission level are encountered by the general public.

The analysis provided indicates a conservative assumption that all antennas were operating at full capacity with all channels transmitting. The maximum power densities are well below the maximum permissible exposure standards established by the Federal Communications Commission. The power densities of the proposed antennas are not significantly in variance with the existing power output of other antennas currently placed on the water tower. Cumulative RF effects are not significant and would not impact people on the ground. Additionally, the Navy has conducted an RF interference analysis determining if the existing and planned antennas would impact important research RF environments of Carderock. The Navy found no ground areas or testing environments on the base that are adversely affected.

## CONFORMANCE

### Comprehensive Plan for the National Capital: Federal Elements

Staff has determined that the antenna installation would not have an effect on other federal facilities, including the Clara Barton Parkway, and is consistent with the Federal Elements of the Comprehensive Plan.

### Master Plan

The Commission approved a revised master plan for NSWC on January 8, 2004. The antennas are not inconsistent with the master plan, which identifies the water tower land use for Research, Development, Testing and Evaluation.

### National Environmental Policy Act

Pursuant to the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA), the Commission staff has reviewed the submission and has found the applicant specified that the proposal is consistent with the Commission's categorical exclusion provisions at Section 8 of the Commission's Environmental Procedures. The staff finds the Section 8 categorical exclusion applies to the proposal in that the submission conforms to the criteria of co-location of communication antennae on federal property consistent with the General Services Administration Bulletin FPMR

D-242, *Placement of commercial antennas on Federal property*, and adheres to all NCPC requirements for antennas on federal property.

National Historic Preservation Act

The Maryland Historical Trust concurred with the Navy's finding of no adverse effect on October 6, 2003.