NAVAL SURFACE WARFARE CENTER WHITE OAK DETACHMENT
Silver Spring, Maryland
(Base Realignment and Closure Site)

Site Location.

Naval Surface Warfare Center, White Oak (NSWC White Oak) covers 710 acres and is located in Silver Spring, Maryland approximately five miles northeast of Washington D.C. The mailing address is 10901 New Hampshire Avenue, Silver Spring, Maryland 20903-5640. The facility is surrounded by residential, light industrial and commercial properties. The U.S. Army's Adelphi Laboratory Center (ALC) (MD-068) borders the White Oak facility to the south.

Site History.

The facility originally consisted of 870 acres and was established in 1939 as a Naval Ordnance Laboratory to conduct research and development of naval ordnance. In 1969, 137 acres of the facility were transferred to the U.S. Army for the Harry Diamond Laboratory (Adelphi). In 1974, the facility became a detachment of the Naval Weapons Laboratory in Dahlgren, Virginia and was renamed the Naval Surface Warfare Center, White Oak Detachment. From that time until its closure, the Navy conducted research and development of weapons and strategic systems. The facility was divided into five research operations areas: the laboratory area, nuclear effects area, hydroballistic area, magnetics area and explosives area. In July 1992, an explosives storage magazine (#355) exploded causing limited damage to some of the surrounding communities. The cause of the explosion was attributed to human error.

In 1995, the Navy transferred 22 acres of the property to the U.S. Army. The facility was placed on the Base Realignment and Closure Act (BRAC 95) list in 1995 and scheduled for closure. The Navy closed all research activities at the facility in 1997 and transferred approximately 600 acres of the property to the General Services Administration (GSA). The Air Force continues to occupy the
wind tunnel laboratory area as a tenant of GSA. The U.S. Army acquired 49 acres of the property in a federal agency transfer from the Navy in 1998.

Two site-related contaminants have been discovered in off-post
residential wells downgradient from the White Oak property. Each well is affected by only one contaminant of concern. One contaminant, trichloroethene (TCE) was discovered in a residential well at a maximum concentration of 4.6 parts per billion (ppb). The residential well is screened in the fractured bedrock aquifer. The Navy installed a carbon filtration system at the residence between the tap and the well.

Ammonium perchlorate has been detected in a separate off-post residential well that is downgradient from the White Oak property. Ammonium perchlorate is identified as a groundwater contaminant at White Oak, with a maximum detection in a monitoring well on the facility of 87 µg/L. While no regulatory standards exist for perchlorate, the U.S. Environmental Protection Agency (EPA) has issued an interim guidance value of 32 µg/L. The maximum detection in the residential well is 9.7 µg/L.

Because of TCE migrating from White Oak to the adjacent U.S. Army property (ALC), an air-stripping unit was installed to treat groundwater collected by the Army ALC Building 500 de-watering system. The treated effluent is then discharged to a tributary of the Paint Branch Creek. This tributary is adjacent to the residence south of the ALC property whose well was found to contain low levels of TCE.

Additional measures were implemented to prevent the migration of volatile organic compound contaminated groundwater off federal property. A collection trench was installed in 1998 at the southernmost portion of the Army ALC to intercept and treat groundwater prior to discharge to surface waters. In 1999, a limited pump and treat operation was activated in the centrifuge area upgradient from the collection trench. The groundwater pumped from this area is gravity fed to the collection trench and treated prior to discharge.

The EPA issued a 7003 Resource Conservation and Recovery Act (RCRA) Corrective Action Order against the Navy in 1998. EPA Region III has delegated enforcement of this Order to the Comprehensive Environmental Response, Compensation and Liability Act program.

The fiscal year 1999 federal budget allocated funds to begin construction of the future Food and Drug Administration (FDA) campus to be housed on White Oak property. The BRAC Closure Team (BCT) is currently fast-tracking the Remedial Investigation work at the proposed FDA campus location (Installation Restoration Program [IRP] Site 11).

Environmental Investigations and Actions.

In 1996, the Navy completed the Environmental Baseline Survey (EBS). The EBS documents the environmental condition of the property. At that time, the facility encompassed 710 acres, of which, 110 acres were identified to require remedial action or further evaluation. Also in 1996, a removal action was conducted at Sites 8, 9, and 11 to remove leaching wells and contaminated soils for off-site disposal. Based on these removal actions a proposed plan was presented to the public in January 2002 for No Further Action (NFA) at Sites 8 and 11 Soils, and a subsequent No Further Action (NFA) ROD was signed in July 2002.

Following a series of investigations during 1999, a ROD was signed in May 2001 for a RCRA C landfill cap at Operable Unit 2 (OU-2), which consisted of the Sites 1 and 2 landfills. The Remedial Action was completed in December 2001.

In 1999, removal actions were conducted at Sites 33 and 28 to address sediments contaminated with polychlorinated biphenyls (PCBs). Additional PCB contaminated soil was excavated in early 2002, along with PCB contaminated soil and sediment at Site 47. A NFA ROD for Site 28 and 47 was signed in May 2003.

A RCRA Facility Investigation and a Corrective Measures Study for groundwater was completed for Site 11 which revealed contaminant plumes of VOCs, hexavalent chromium and perchlorate. A proposed plan was presented to the public in May 2003 for in-situ bioremediation, ICs and LTM. The ROD is currently undergoing legal review.

A remedial investigation/feasibility study was completed at the 228-acre groundwater site known as Operable Unit 1 (OU-1) in the spring of 2003. This operable unit comprises the following sites: 3, 4, 5, 7, 9, 13 and 46. The BCT decided to break up the OU-1 area to manage the remediation and long-term monitoring associated with several sources and plumes. A proposed plan for Site 4 has been finalized and the ROD which documents the selected remedy of groundwater extraction and treatment, with in-situ bioremediation, institutional controls (ICs) and long-term monitoring (LTM) as well as soil vapor extraction is currently undergoing legal review.

The removal action at Site 7 – Ordnance Burn Area to remove soil contaminated with explosives residue was successful in mitigating risks to human health from exposure to surface soil. A proposed plan for soil and groundwater, finalized in the summer of 2003, recommended in-situ bioremediation with ICs and LTM for groundwater and no further action of soil. The ROD is currently undergoing legal review. Following the completion of the OU-1 RI/FS a proposed plan for Sites 5 and

13 soil and groundwater which recommends in-situ chemical reduction using zero-valent iron was presented to the public in October 2003.

Current Status.

A pilot study is currently ongoing at Site 9, which involves the injection of sodium lactate into the aquifer contaminated with chlorinated solvents and explosives. The BCT is also reviewing the RI report for the Site 49 area following the fieldwork for the site, which revealed a large, high concentration trichloroethene plume in the groundwater.

Future Activity.

The White Oak BCT has adopted an aggressive schedule to have remedies in place within the next two years. RODs planned for signature by the end of 2003 are for Site 11 Groundwater, Site 4 and Site 7. RODs that are planned for 2004 include Site 5 and 13, Site 3, Site 9, AOC 2 and Site 49.

Facility Contacts.

Walter Legg	BRAC Environmental Coordinator, EFACHES	(202) 685-0061
Bruce Beach	EPA Region III, Project Manager	(215) 814-3364
Bob Ridgway	GSA Environmental Officer for White Oak property	(301) 344-8120
John Fairbank	Maryland Department of the Environment	(410) 537-3440