

# NPL Site Narrative for Naval Surface Warfare - Dahlgren

## NAVAL SURFACE WARFARE - DAHLGREN

### Dahlgren, Virginia

**Conditions at Proposal (February 7, 1992):** The Naval Surface Warfare Center-Dahlgren (NSWC) covers 4,000 acres in Dahlgren in King George County, Virginia, 40 miles south of Washington, DC, on the west bank of the Potomac River. The area is primarily residential and agricultural. Established in 1918, NSWC serves as the principal Navy research, development, testing, and evaluation facility for surface ship weaponry, naval mines, strategic systems, and warfare analysis. NSWC encompasses two areas: the Main Site, which occupies 2,678 acres, and the Explosive Experimental Area (EEA), an isolated testing range on a 1,614-acre island separated from the Main Site by Upper Machodoc Creek. Located on the Main Site are areas used for air operations, a security area where a variety of ordnance are tested, laboratories, computer facilities, administrative offices, and residential areas. The on-base population includes 3,200 civilians, 100 military personnel, and 154 housing units.

A 1983 Navy study identified several sources of hazardous materials, including the three on the Main Site described below.

The 1400 Area Landfill (Site 17) covers 5-10 acres. For three years in the 1970s, municipal wastes were deposited at the landfill. Canisters of mercury apparently also have been buried. Low levels of mercury were found in shallow ground water and stream sediments in the vicinity of the landfill. Downstream in Hideaway Pond, stream sediments and fish contain mercury above the Food and Drug Administration Action Levels. Also downstream of the 1400 Area Landfill are wetlands along Gambo Creek and the Potomac River.

The Pesticide Rinse Area (Site 25) was formerly used for draining and rinsing of pesticide containers. Sampling results indicate area soils and shallow ground water are contaminated with pesticides, including DDD, DDE, and DDT. Surface water runoff from the rinse area drains into the Potomac River.

The Transformer Draining Area (Site 19) was used in the 1950s for the draining of electrical transformer oil containing PCBs. The 1983 study indicates soils are contaminated with PCBs to a depth of 4 feet.

Two aquifers underlie NSWC: the shallow Nanjemoy Aquifer, which supplies drinking water to a small number of private homes; and the deeper Potomac Group Aquifer, which provides municipal water supplies and drinking water for NSWC. An estimated 6,900 people obtain drinking water from municipal and private wells within 4 miles of NSWC.

**Status (October 1992):** In early 1992, EPA and the Virginia Department of Waste Management reviewed the Navy's workplan for a Remedial Investigation/Feasibility Study to determine the type and extent of contamination at the site and identify alternatives for remedial actions. The workplan involves 10 separate locations, including the 3 described above.

EPA is preparing a draft Federal Facilities Agreement under CERCLA Section 120 to cover future activities at the site.

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at [ATSDR - ToxFAQs](http://www.atsdr.cdc.gov/toxfaqs/index.asp) (<http://www.atsdr.cdc.gov/toxfaqs/index.asp>) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.