

PATUXENT RIVER NAVAL AIR STATION (MD-57)
Patuxent River, Saint Mary's County, Maryland
(National Priorities List Site)

Site Location

The 6,800-acre facility is located in the northeast portion of St. Mary's County at the confluence of the Patuxent River and the Chesapeake Bay. Lexington Park, an unincorporated community, is located immediately southwest of the facility.

Site History

The Patuxent River Naval Air Station is an active military facility. Since 1943, the Navy has conducted research, development, and evaluation of naval aircraft at the facility. Currently, both fixed wing and rotary wing (helicopters) aircraft are operated and tested at the facility. The station employs over 10,000 military and civilian employees, and it is currently gaining several hundred employees as it expands in accordance with the Navy's national base realignment plan.

Previous waste management practices allowed solvents, oils, fuels, pesticides, polychlorinated biphenyls (PCBs), plating solutions, and lab wastes to be released into the soil, shallow groundwater, surface water, and sediments in the vicinity of the facility. Former disposal activities have included several landfill operations (one was permitted by the Maryland Department of the Environment [MDE] until closure in 1994), disposal areas, and dry wells. The facility made extensive use of underground storage tanks, which have released jet fuel, gasoline, and diesel fuel into the environment. The MDE's Oil Control Program oversees several remedial sites at the facility.

Environmental Investigations and Actions

The Navy began investigating the environmental impacts of waste management practices in the early 1980s. In 1984, an Initial Assessment Study identified 33 sites of potential concern. A 1994 Interim Remedial Investigation (RI) for ten of these sites demonstrated adverse impacts to soils, surface water and shallow groundwater. A total of 46 sites of concern have now been identified.

Several removal actions to address contaminated soils and associated debris have been conducted. In 1991, 3,245 tons of pesticide-contaminated soils and sediments were removed from the pesticide shop area (Site 17). That same year 2,300 tons of PCB-contaminated soils were removed from a former transformer storage area (Site 28). In 1994, an offshore breakwater barrier was constructed to abate shoreline erosion from the Fishing Point Landfill (Site 1) into the Patuxent River. In April 1996, metals-contaminated soils and debris were removed from a former metals-plating waste dry well (Site 24). In October 1997, 137 drums containing waste solvents and petroleum constituents and 750 yd³ of contaminated soil were removed from a former disposal area (Site 34).

Samples from fish collected at two ponds located on the facility have revealed low levels of pesticides, which are attributed to the pesticide shop (Site 17). In 1994, the U.S. Environmental Protection Agency (EPA) listed the facility on the National Priorities List (NPL). In part, the listing was justified by the demonstrated impact of pesticides on the aquatic life in the ponds. An annual limit has been established for the consumption of fish caught from the ponds on the Patuxent River Naval Air Station because of the pesticide concentrations in the fish tissue.

In 1996, the EPA and the Navy signed a Record of Decision (ROD) that documented the Navy's decision to construct a Resource Conservation and Recovery Act Subtitle D landfill cap on a former sanitary landfill (Site 11). The cap was completed in March 1997. The cap contains an engineered flare system to burn-off landfill gases that are generated. Site 11 is currently undergoing long-term monitoring. Leachate collected from the landfill is directed to the county wastewater treatment center. It was established in 2001 that the leachate pH was out of range for the treatment facility. The Navy worked with MDE to obtain a permit for the pre-treatment of leachate to correct this issue.

A ROD for the former pesticide shop (Site 17) was signed in 1998. The ROD specified the

removal of pesticide-contaminated soil from Site 17. Consequently, 2,970 tons of contaminated soils were removed from October 1998 through February 1999. Excavation activities were suspended in 1999 to allow for additional funding. By April 2000, it was established that to meet the original remediation clean-up goal, the initial removal volume would have to be doubled. An amendment to the ROD was finalized in June 2001 and by the end of the summer season an additional 832 tons of contaminated soils were removed and the site was closed out. The site was remediated in October 2001 with a two-foot soil cover.

A ROD was signed for the Bohne Yard (Sites 6 and 6A), a former storage area in September 1999. The ROD specified the placement of a soil /concrete cover on Site 6 and asphalt cover on Site 6A. The concrete cover for Site 6 was completed by the spring of 2000. By 2002 the base had redefined probable use for Site 6A, necessitating reevaluation of the planned remedy put forth in the ROD.

A Site Screening Assessment report for five sites (Sites 3, 31, 39, 41 and 47) was completed in October 1999. Two of these sites have proceeded to the RI. In addition, 16 other sites are currently undergoing an RI. The fieldwork for these sites is complete, and the reports will be generated in phases, with each report addressing four or five sites.

A ROD was signed for Fishing Point Landfill areas (Sites 1 & 12) in February 2000. In accordance with the ROD, a soil cover was constructed over these areas. Because these areas were former landfills, the Navy coordinated with MDE to obtain a variance to our landfill closure requirements, which are Applicable or Relevant and Appropriate Requirements for this action. Remediation of the 3.6 acres of wetland that were destroyed during construction of the soil cover is being discussed for resolution.

The EPA negotiated a Federal Facilities Agreement with the Navy to set the scope and terms of the NPL-mandated investigation and cleanup, which was signed in the fall of 2000. Remedial investigations of several sites at the facility are continuing.

Current Status

MDE's Oil Control Program is overseeing 18 sites on the Naval Air Station. A significant remediation project concerns an extensive release of jet fuels from underground storage tanks in the fuel depot into shallow groundwater and soils. Another bulk storage site is also being addressed because of releases of motor fuels from aboveground storage tanks. A smaller project is being considered for a release of motor fuels from underground storage tanks in the Navy Exchange (gas station) area.

The Navy has completed an ecological risk assessment (ERA) for a marsh adjacent to the Fishing Point Landfill sites. While the Navy believes sediment and surface water pose minimal risks to ecological receptor populations, due to AWQC lead and iron exceedences in surface water, that ERA recommends that the site be periodically monitored for these metals. The Navy has begun evaluation of a potential lead source area, the rifle range adjacent to the marsh.

The Maryland Army National Guard has proposed building a training facility on the grounds of Patuxent River Naval Air Station Sites 4, 5 and 27, resulting in immediately reprioritizing the base-wide schedule for investigation and cleanup. A removal action and RI are ongoing concurrently at Sites 4 & 5. Site 27 is undergoing a No Further Action ROD.

Planned or Potential Future Action

The Navy continues to reprioritize and in cases redefine IR sites for redevelopment. Site 46 and Site 6A have been redefined to support base construction. A ROD was issued for Site 6A in 1999 and the Navy's planned use for the site may necessitate reevaluation of the issued ROD.

Facility Contacts

John Fairbank	Maryland Department of the Environment	(410) 537-3440
Andy Sochanski	U.S. Environmental Protection Agency Region III	(215) 814-3370
Stephen Hurff	Department of the Navy	(202) 685-6293
Bayly Smith	Naval Air Station Patuxent River	(301) 757-4898

Site Repositories

Patuxent River Naval Air Station Library
Cedar Point Road
Patuxent River, MD 20670

Lexington Park Public Library
Coral Place
Lexington Park, MD 20653