NPL Site Narrative for Langley Air Force Base/NASA Langley Research Center

LANGLEY AIR FORCE BASE/NASA LANGLEY RESEARCH CENTER
Hampton, Virginia

The Langley Air Force Base (LAFB)/NASA Langley Research Center (NASA Langley) site consists of two adjacent Federal facilities located in Hampton, Virginia, on a peninsula separating the Northwest and Southwest branches of the Back River. The Back River supports commercial and recreational crab, oyster, quahog, and fin fishing. The Back River's two branches form a tidal estuary that empties into the Chesapeake Bay.

LAFB is a 3,152-acre site with more than 10,000 employees. NASA Langley covers 772 acres and employs an additional 5,000 government and contract workers. Residential, rural, and intertidal wetlands surround the facilities. Wetlands in the Plum Tree Island National Wildlife Refuge are located northeast of the site.

LAFB has been an airfield and aeronautical research center since 1917 and is the home base for the First Tactical Fighter Wing. NASA Langley is a research facility that conducts 270 operations in 191 buildings and operates 40 wind tunnels. Wastes generated at LAFB and NASA Langley include waste oils, solvents, paint wastes, pesticide containers and rinse waters, photographic wastes, scrap materials, used batteries, and printed circuit board plating wastes. PCBs and polychlorinated terphenyls (PCTs) were used in hydraulic systems, electrical equipment, compressors, and casting operations.

Previous studies conducted at the two facilities identified over 30 possible sources of contamination. Initially, four sources were evaluated in detail.

Landfills 10, 11, and 12, located in the northern part of the site were used from approximately 1950 until 1980. Wastes known or suspected to have been disposed of at this source included waste solvents and paints, used batteries, scrap metal, pesticides, municipal wastes, general chemicals, sanitary refuse, photofinishing wastes, and hospital and lab wastes. Analytical data revealed lead, cadmium, silver, and phenols in ground water. Available information indicates that this area had been predominantly wetlands.

Sediment and biota in the Back River and Tabbs Creek (a tributary of the northwest branch of the Back River) are contaminated extensively with PCBs and PCTs. Tabbs Creek, in which highest levels of contamination were found, is inaccessible to the public for security reasons and has been posted as a "no fishing" area because of coliform contamination.

Storm sewers, sumps, and three drainage systems also are being evaluated (Sources Nos. 11, 12, and 30). Releases has been observed below the storm sewer outfalls. The storm sewers are subject to storm and tidal influences. Electrical equipment containing PCBs and lubricating oils, hydraulic fluids, mercury, and pesticides have been released on 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) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.