



# ***Facts About...***

## **Springfield Hospital Center (SHC) Maintenance Facility Area (Non-Master List Site)**

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### **Site Location**

Springfield Hospital Center (SHC), a state psychiatric hospital, is located at 6655 Sykesville Road, Sykesville, Maryland in a rural area of Carroll County. The area is characterized by gently rolling hills cut by intermittent springs and streams. The maintenance facility, which serves the facility, is situated on top of a topographic high, south and west of Piney Run. The site overlies the Sykesville formation, characterized by gray to greenish gray quartz, which is the primary water bearing formation in the area.

### **Site History**

The Maryland Legislature approved funding for SHC in 1894 to help alleviate overcrowding in other state run psychiatric hospitals. The facility accepted its first patients in 1896. SHC continued to grow until the introduction of new medications in the 1950s reversed the trend of institutionalizing the mentally ill by returning them to their homes and communities for treatment. The facility, which is run by the Department of Health and Mental Hygiene, is still in operation though at a reduced level from its peak in the 1950s. The Maryland Department of the Environment ("MDE") became involved at the site in September 2004 when Carroll County advised MDE that tetrachloroethene (PCE) and trichloroethane (TCE), chlorinated solvents commonly used for dry cleaning and degreasing applications, were detected in Carroll County production well #CL-94-1550, which is located at the maintenance facility that serves the SHC facility.

### **Environmental Investigations**

After the discovery of PCE at 7.5 ug/l and TCE at 8.1 ug/l in the production well (the maximum contaminant level for both chemicals is 5 ug/l in community drinking water supplies), MDE began an investigation to identify a possible source for the contamination.

MDE started its investigation by surveying all potential sources of solvent usage within a half-mile of the well, including the SHC maintenance facility, neighboring Northrop Grumman ("Northrop") facility and Department of Corrections Laundry Facility ("DOC"). An investigation of the SHC maintenance facility found no significant evidence of PCE or TCE usage. An investigation of the DOC laundry facility found that PCE was never used in their cleaning process. A review of historical hazardous waste records indicated that the Northrop plant had disposed of both materials in the past. The Northrop facility is also located immediately upgradient of the impacted production well.

In April 2005, a subsurface soils investigation of Northrop's former sludge disposal area detected 22 ug/kg of PCE in a sludge sample in one of four test pits. Additionally, a sample from a severely degraded 55-gallon drum containing several gallons of liquid detected PCE at 7,900 ug/l. A further geophysical survey conducted in October 2005 did not detect any other buried metal objects.



Groundwater samples collected from a bedrock interface monitoring well installed downgradient of Northrop's former sludge disposal area also showed levels of chlorinated solvents in excess of the drinking water standard. Chlorinated solvents were also detected in surface water samples from a small intermittent stream below the Northrop facility in November 2005.

In July 2006, Northrop investigated soil gas and groundwater quality in its manufacturing and former sludge disposal areas. Preliminary soil gas results implicate a hazardous waste storage area on the north side of the manufacturing area as a potential contamination source requiring additional investigation.

### **Current Status**

Carroll County is currently constructing a water delivery system that includes an air stripping treatment system designed to remove chlorinated solvents from the water supply. The stripping system will prevent any future impact to the use of the well field. MDE and Northrop continue to investigate contaminant sources at the Northrop facility and plan to implement corrective measures in the near future.

### **MDE Contact**

Arthur O'Connell

Maryland Department of the Environment  
CHS Enforcement Division

(410) 537-3493

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