

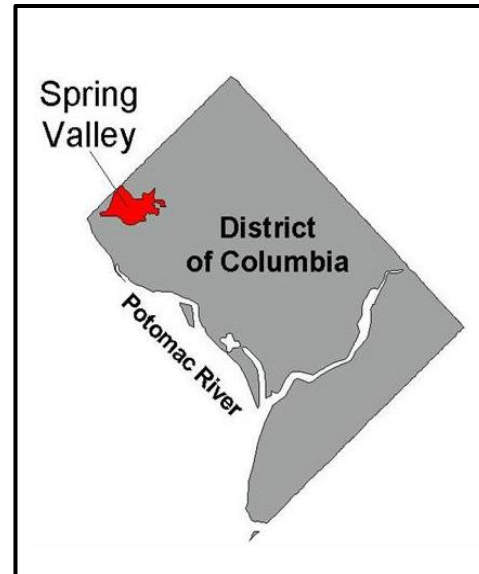


Spring Valley Formerly Used Defense Site, Washington, D.C.

U.S. ARMY CORPS OF ENGINEERS
FACT SHEET as of Spring 2017

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BACKGROUND: The Spring Valley Formerly Used Defense Site (FUDS) consists of approximately 661 acres in the northwest section of Washington, D.C. During the World War I-era, the site was known as the American University Experiment Station (AUES), and was used by the U.S. government for research and testing of chemical agents, equipment, and munitions. Today, the Spring Valley FUDS encompasses approximately 1,600 private homes and lots, including several properties owned by various embassies, as well as the American University and Wesley Seminary. The U.S. Army Corps of Engineers, Baltimore District (USACE) has the lead responsibility for investigation and cleanup actions at the Spring Valley FUDS, and in 1998 entered into a formal partnering process with the U.S. Environmental Protection Agency (EPA) and the District Department of Energy and the Environment (DOEE). As a result of the agreement, all project decisions and priorities are determined by consensus. The three organizations, referred to as the Partners, have agreed to prioritize the project work by risk, addressing the highest risks first.



Spring Valley Formerly Used Defense Site in northwest Washington, D.C.

INITIAL INVESTIGATION: In January 1993, a contractor digging a utility trench in the Spring Valley neighborhood discovered buried ordnance. The U.S. Army initiated an emergency response that was completed in February 1993 and resulted in the removal of 141 items, including 43 items suspected to contain chemical agent. In February 1993, the Army Corps of Engineers began to conduct a remedial investigation to characterize the nature and extent of the waste at the Spring Valley FUDS. The USACE investigation focused on specific sites that were determined to



Site of Pit 2 on the Republic of Korea Embassy Property, next door to 4825 Glenbrook Road NW

have the potential for American University Experiment Station-related contamination. After two years of investigation and 260 soil samples, USACE found four ordnance items and no chemical warfare materiel. In 1995, a No Further Action Record of Decision covering most of the site was signed, while acknowledging the Army's responsibility for follow-up action if needed.

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STATUS: USACE returned to the FUDS in 1998 to further investigate potential ordnance burial pits on the residential property for the Ambassador of the Republic of Korea. During this investigation, USACE discovered two burial pits containing munitions items and laboratory glassware, some of which contained traces of chemical agent. The USACE, in partnership with EPA and DOEE, then expanded the investigation to include all properties within the Spring Valley FUDS. This investigation included the identification and removal of arsenic-contaminated soil, a groundwater investigation, and the search for additional munitions, both in burial pits and isolated items on residential properties. These efforts are summarized below.



Arsenic Contaminated Soil Excavation

Contaminated Soil Investigation and Removal –

USACE has conducted an extensive soil investigation to determine the nature and extent of soil contamination within the FUDS. As part of this effort 1,632 residential, federal/District of Columbia, and commercial properties/lots were sampled for arsenic, the main contaminant of concern in Spring Valley. Of the properties that were sampled, USACE identified 177 properties/lots that required soil remediation. The primary method of remediation was through excavation and off-site disposal of the arsenic-contaminated soil. The USACE has completed soil cleanup activities at all scheduled properties/lots as of August 2011; however, the USACE remains committed through the removal action process to continue to address arsenic-contaminated soil if additional areas are found. This has resulted in a few very small soil clean-ups since 2011. Additionally, the USACE has identified two areas of soil contamination not related to arsenic (American University south campus and a single adjacent private property) that will be addressed with small scale soil removals. This action is planned for 2017.



Multi-port Well Sampling on Glenbrook Road



Obtaining Surface Water Samples

Groundwater Study – The USACE has conducted an investigation to determine to what extent the American University Experiment Station -related activities may have impacted the groundwater within the FUDS. The investigation involved the installation of monitoring wells and the collection of samples from the wells and surface water locations. To date, USACE has installed 55 groundwater monitoring wells and sampled surface water at 25 additional

locations. Perchlorate has been detected at levels above the EPA interim drinking water health advisory level of 15 parts per billion (ppb) at two locations in the project area. Arsenic has been detected in groundwater above the maximum contaminant level (MCL) for drinking water in one area. Note: *The groundwater at the FUDS is not used as a potable water source.* The USACE has completed the groundwater investigation and has finalized a Remedial Investigation report detailing the nature and extent of contamination. A Feasibility Study is being prepared and was submitted for Partner review in April 2017.

Residential Ordnance Investigations and Clearance – The USACE, in conjunction with EPA and DOEE, identified 101 residential properties with an increased likelihood of containing buried ordnance items. The USACE mission was to identify and investigate these items. The process involves surveying the properties with state-of-the-art metal detection systems, evaluating the data generated from the surveys, and removing (through excavation) any World War I related items. The USACE has safely completed this process at all identified residential properties as of February 2016. USACE prepared a Remedial Investigation Report that recommended further actions at 92 properties. USACE is planning to sign a Decision Document in the summer of 2017 that will detail actions that the Army will take to achieve final clearance at these properties. This action is planned for 2017 through 2020.



Reacquiring Exact Anomaly Location with the Geophysical Instrument G858



Intrusive Investigation of Anomalies

Burial Pit Ordnance Investigations and Clearance – USACE successfully identified and removed munitions and debris from 4 burial pits and several debris fields containing over 1,000 ordnance items including rounds filled with chemical agent. Two of the burial pits were located on the property of the Republic of Korea Ambassador's residence and were investigated and cleaned up successfully between March 1999 and March 2000. A third burial pit straddled the Embassy's property and a private residence now

owned by American University (4825 Glenbrook Road NW). USACE removed the ordnance and debris from the Embassy's side of the pit, called Pit 3, in late 2001 and into 2002. In 2007, the USACE resumed investigating Pit 3, removing additional munitions from the 4825 Glenbrook

Road NW property, and also investigated via test pitting a second American University owned property (4835 Glenbrook Road NW) for burial pits (none were found). These activities require extensive safety measures and are thus very costly in relation to typical operations at the Spring Valley FUDS. Investigations at 4825 Glenbrook Road NW were temporarily stopped in 2010 to analyze the existing site safety control measures to adequately contain and filter an unexpected chemical recovered in a bottle at the site. The final cleanup measure for the property, selected by the USACE and the regulatory Partners, is to remove the American University Experiment Station-related waste remaining at the 4825 Glenbrook Road NW property. The house was demolished in the fall of 2012, and digging at the property resumed in September of 2013. The effort is expected to take until the summer 2017 to complete; with restoration and return of the property to its owner by the end of summer 2017.



Engineering Control Structure over Excavation Site at 4825 Glenbrook Road NW

The USACE removed an extensive debris field, called Lot 18, located on American University property and investigated six suspected burial pits located adjacent to Lot 18, also on American University property. In late 2006, the USACE identified a new debris field on American University property adjacent to the Lot 18 debris field. The area has been identified as the Public Safety Building Debris Field and included approximately 4,000 square feet of debris, and extended under the Public Safety Building.



Engineering Control Structure Tent at Lot 18

Investigation and cleanup was completed in 2009. Several hundred pounds of American University Experiment Station-related debris and over 20 pieces of munitions debris were recovered. The USACE is committed to working with the Partners and American University to determine an appropriate manner to address the debris remaining under the Public Safety Building – this will be formally addressed in the Decision Document to be signed in the summer of 2017.

For more information regarding the Spring Valley FUDS project, please contact Rebecca Yahiel, Spring Valley Community Outreach, (410) 962-2210, e-mail: rebecca.e.yahiel@usace.army.mil.