



US Army Corps
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Baltimore District

The Corps' Pondent

A newsletter by the U.S. Army Corps of Engineers for Spring Valley Project area residents

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<http://www.nab.usace.army.mil/projects/WashingtonDC/springvalley.htm>

The Corps' mission in Spring Valley is to identify, investigate and remove or remediate threats to human health, safety or the environment resulting from past Department of Defense activities in the area.

Partnership prepares for recovery of buried munitions on Glenbrook Road

by Joyce Conant and Jennifer Walsh
Public Affairs Specialists

The Department of the Army has directed the U.S. Army Corps of Engineers (USACE), Baltimore District to accelerate its investigation of the American University Glenbrook Road properties and has committed an additional \$3 million this fiscal year to complete this work.

The work, which is scheduled to begin in the April/May timeframe of this year and anticipated to be completed in the winter of 2008, focuses on the recovery of previously found munitions in an area known as Pit 3, located in the 4800 block of Glenbrook Road. The recovery investigation will be done using equipment designed to protect both the public and those working at the site.

"As we remove these risks from the Spring Valley neighborhood, the safety of the residents

and the workers are our top priorities," said Gary Schilling, Spring Valley program manager.

A number of protective safety measures will be put in place including a modular aluminum containment structure for fragmentation control, which is designed to protect workers and the public from an exploding munition; a vapor containment cover, which is a tent-like device designed to protect workers and the public from a release of chemical warfare material; and three-person teams that will be responsible for excavation and removal of the previously discovered rounds and debris.

In addition, there will be support from the Technical Escort Unit from Aberdeen, Md., who will be

responsible for the identification, removal and transport of the munitions, as well as support from the Edgewood Chemical Biological Command, who will be responsible for monitoring the air for the presence of chemical warfare material. In the event chemical warfare material is released from the burial pit, two air filtration banks will clean the air as it leaves the pit. The air will also be monitored in three locations along the filtration system.

Additionally, the USACE will maintain 24-hour site security and install a privacy fence on Glenbrook Road in

the area of the recovery operation. Due to the limited road access while the work is performed, travel will be limited to local traffic only. The USACE plans to place site trailers on American University property to keep the workers in close proximity of the work.

The second phase of the recovery effort is scheduled to begin this August and involves the investigation of the remainder of the front yard of the Pit 3 property and one additional property in the 4800 block of Glenbrook Road. While the USACE knows there are

buried munitions in Pit 3, they have not confirmed munitions in these other areas. The USACE plans to dig approximately 90 test pits in a 14-foot spacing pattern, which will give them a high level of confidence that no other munitions burials exist on these properties.

"A similar test pit investigation was conducted in 2001, which led to the discovery of Pit 3," said Schilling.

The USACE mission in Spring Valley is to identify, investigate and remove or remediate threats to human health, safety or the environment resulting from past Department of Defense activities in the area.

(Site maps for both Glenbrook Road locations can be found on page 3)



(Courtesy photo)

Buried munitions await recovery in an ordnance pit on Glenbrook Road in 2002. The USACE is preparing for a full recovery investigation of Pit 3 this year.

Partnership moves forward with 2006-2007 groundwater investigation

by Jennifer Walsh
Public Affairs Specialist

The U.S. Army Corps of Engineers (USACE), Baltimore District continues to make progress on the groundwater study in Spring Valley.

During the last few months of 2006, the USACE well-drilling team installed most of the new monitoring wells as planned last June by the project partners – USACE, the U.S. Environmental Protection Agency and the D.C. Department of the Environment. An additional well was installed in January in a small neighborhood park on 49th Street.

“Currently only one new well and one original well remain to be installed,” said Ed Hughes, Spring Valley groundwater project manager.

Although the field installation of a well only takes three to four days to complete, the entire process is considerably longer. First, the location of the monitoring well is determined by the project partners and hydro-geologists, who are scientists that study the distribution, movement and quality of groundwater.

Once the location is chosen, the USACE takes the necessary steps to get a permit for the well, permission from landowners if the location is on

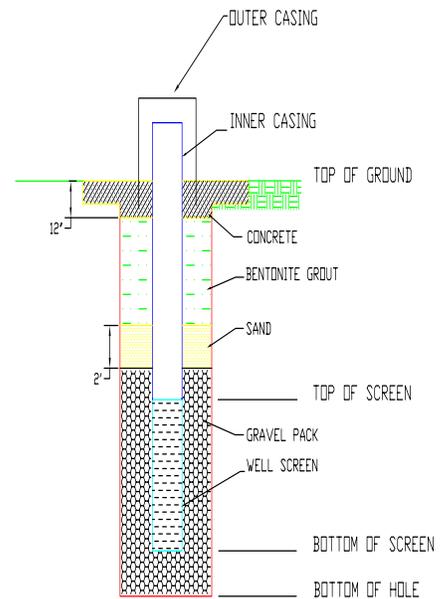
private property and special permits if the installation process will impact traffic on neighborhood roadways. After the correct permits are obtained, a drill installation crew is scheduled to install the well.

“We like to install as many wells as possible in each mobilization because this maximizes our efficiency,” said Hughes.

The drill crew begins the installation process by using a diesel-powered drill system to drill into the ground below the surface. Water from a clean source is often pumped into the borehole, or the hole that is drilled into the earth, to make drilling smoother and help maintain the structure of the borehole. Once they reach groundwater level, the borehole is allowed to sit undisturbed overnight so the water level can stabilize before the well components are added.

The main component of the well is a slotted polyvinyl chloride (PVC) well screen, which allows water to enter the well. The screen is usually 15 feet long and a PVC riser pipe, which will be the point of access for sampling, is attached to the top of the screen. Next, part of the borehole is backfilled using filter sand to surround the well screen. The remainder of the borehole is backfilled using impermeable grout, a water-resistant bonding material that also provides a seal around the riser pipe. The opening of the well is covered using a flush mount, which is level with the ground or a stand up cover, which rises about two feet above the surface.

The last step in installation is the development of the well, which occurs when water is pumped from the well to remove



TYPICAL WELL DETAIL

NOT TO SCALE

Construction diagram of a typical monitoring well as used in Spring Valley.

debris or soil introduced from construction. The same quantity of water used during drilling is also removed in order to flush the borehole of the water added during digging and to help the packed sand around the riser pipe settle and become firm. Afterwards, the well stands for a minimum of 30 days to allow any disturbances from the drilling to settle before using the well for groundwater sampling studies.

“The primary means of sampling local groundwater is to install a well into the ground so that the groundwater can be gathered for sampling,” said Hughes.

A well is sampled by first placing a submersible pump, which is a pump capable of functioning underwater, below the groundwater surface in the well. The pumps the USACE uses are special pumps designed to lift groundwater with little or no agitation, thus preserving the chemical quality of the water. Once the pump is turned on, a quantity of water is removed to

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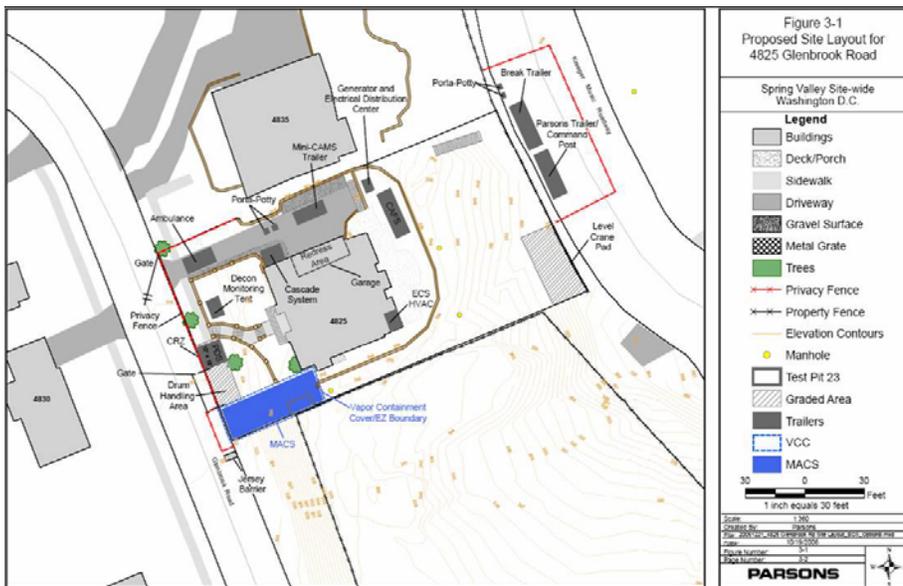
(Courtesy photo)

Well crew members install a well in a Spring Valley park near 49th Street.

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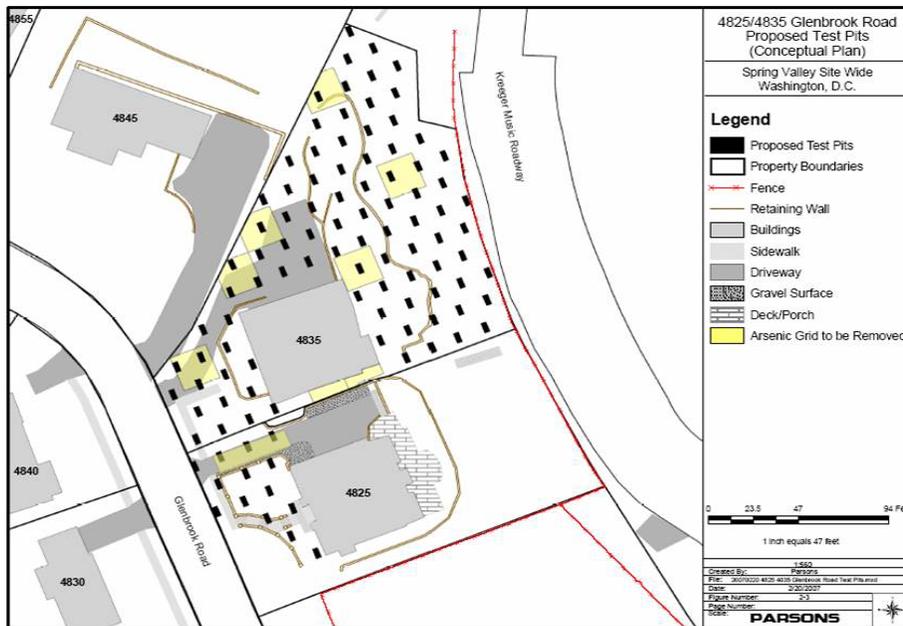
Proposed Site Layout for Pit 3

The layout below shows the location of the protective safety measures for the recovery investigation of Pit 3 beginning in the April/May timeframe



Proposed Site Layout for Test Pit Investigation

The layout below shows the location of the 90 proposed test pits being investigated in the Glenbrook Road area beginning this August



(continued from page 2)

purify the well prior to taking the sample. As soon as fresh groundwater is flowing into the well, representative water samples are taken and packaged for shipment to an analytical laboratory. The analytical laboratory processes the samples and searches for any chemical contaminants. Depending on the number of samples, it may take the lab several weeks or months to provide a report on the results of the study.

In addition to using monitoring wells as sampling devices, the USACE also uses surface water samples to gather groundwater information. Recently, the USACE gathered nine surface water samples in locations both inside and outside the project area.

“We are interested in sampling surface water streams since this information can give us insight into the quality of nearby groundwater without actually installing a well in the ground,” said Hughes.

The data collected from the surface water samples will be available in the March/April timeframe and will assist the partnership in finalizing plans for more extensive sampling this year.



(Courtesy photo)

From start to finish, it generally takes three to four days to install a monitoring well. The well pictured above is an example of a well using a flush mount well cover.

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Spring Valley Formerly Used Defense Site

Project Lifecycle Schedule

The macro schedule is a working document that will be adjusted periodically in response to the evolving needs and priorities of the Spring Valley investigation and cleanup. The tasks within this schedule have been estimated in order to facilitate planning and prioritization discussions among our regulatory partners and other stakeholders. It should be understood that each task may end up taking more or less time than is currently allocated on this schedule.

	FY 07 Oct 06 –Sept 07	FY 08 Oct 07 –Sept 08	FY 09 Oct 08 –Sept 09	FY 10 Oct 09 –Sept 10	FY 11 Oct 10 –Sept 11
MMRP Military Munitions Response Program	<ul style="list-style-type: none"> • 4825 Glenbrook Pit 3 investigation • 4825/4835 Glenbrook test pit investigation • Intrusive investigation - 7 residential properties • Geophys. Glenbrook Road area • Wide area assessment of Dalecarlia Woods 	<ul style="list-style-type: none"> • Ordnance disposal • 4825/4835 Glenbrook • Intrusive investigation – 1 residential property • Intrusive investigation - AU Public Safety Building • Geophys. residential/range fan properties - 22 • Geophys. AOI • AU Public Safety Building air sampling 	<ul style="list-style-type: none"> • Geophys. Dalecarlia • Restoration of 4825/4835 Glenbrook • Geophys. 20 residential properties • Intrusive investigation - 15 residential properties • Geophys. AOI • Intrusive investigation - AOI 	<ul style="list-style-type: none"> • Intrusive investigation - Dalecarlia • Geophys. 20 residential properties • Intrusive investigation – 20 residential properties • Intrusive investigation - AOI 	<ul style="list-style-type: none"> • RI/FS Report,** Proposed Plan and Decision Document
HTW Hazardous and Toxic Waste Program	<ul style="list-style-type: none"> • Arsenic removal (124 grids) • Groundwater investigation • Phytoremediation • RI/FS Report • 4825 Soil gas • Lot 18 risk analysis • Background soil sampling 	<ul style="list-style-type: none"> • Arsenic removal (124 grids) • Groundwater investigation • Phytoremediation • RI/FS Report • AOI soil sampling & removal • Arsenic removal at 4825/4835 Glenbrook • Ecological risk assessment 	<ul style="list-style-type: none"> • Arsenic Removal (56 grids) • Groundwater investigation • Phytoremediation • RI/FS Report • AOI Sampling 	<ul style="list-style-type: none"> • Property reimbursements • Phytoremediation • RI/FS Report • AOI Sampling 	<ul style="list-style-type: none"> • RI/FS Report, Proposed Plan and Decision Document

** The Remedial Investigation/ Feasibility Study (RI/FS) Report process will include an evaluation of human and ecological risk resulting from any residual contamination remaining. If the risk assessment indicates the need for further cleanup, the necessary remedial action will be included in the schedule at that time.

Please call Ben Rooney at (410) 962-0137, if you have any questions regarding this schedule.

March 2007

Restoration Advisory Board (RAB) meetings are held the second Tuesday of every month, with the exception of August and December, at 7 p.m. at St. David’s Episcopal Church, 5150 Macomb Street N.W.