

The Corps 'pondent



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

Feasibility Study Finalized

In January, the Corps received final approval from the regulatory Partners, the Environmental Protection Agency (EPA), DC Department of Energy and Environment (DOEE) and the project's independent technical consultant, and finalized the Site-Wide Feasibility Study.

The Final Feasibility Study was sent out to the stakeholder email list on January 29th, placed at the Information Repository at the Tenley-Friendship Branch Library and placed on our project website:

www.nab.usace.army.mil/RIFS

The purpose of the Feasibility Study was to develop, screen, and evaluate alternatives to achieve remedial action objectives designated in the Final Remedial Investigation report. Viable alternatives will be presented for public review in the Proposed Plan.

With the completion of the Feasibility Study, the Army Corps is now composing the Proposed Plan. The Draft Final Proposed Plan, which will select the preferred alternative as a result of the Feasibility Study analysis, was sent to the regulatory Partners, US EPA and DOEE, for review. A formal public comment period will be held later this spring to allow the community an opportunity to review and comment on the Proposed Plan before it is finalized.

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Work resumes at 4825 Glenbrook Road under third tent, now ahead of schedule

After some minor delays due to weather, including the blizzard in January, high probability operations at 4825 Glenbrook Road resumed under the third and final tent location on Wednesday, Feb. 24. As of mid-April 2016, no WWI American University Experiment Station-related items have been recovered under Tent 3, and the high probability operations team has removed the remainder of the former home's basement floor and all remaining foundation footers. We are now focusing on carefully excavating, sifting, sampling and transporting the remaining soil until competent saprolite is reached.

The Corps originally anticipated the high probability operations under Tent 3 would take one year with an estimated completion date in winter 2016/2017. However, we are currently on track to complete the final phase of our high probability operations six months ahead of schedule. Based on the team's latest projection, we plan



Early efforts under Tent 3 focused on demolishing the basement floor and a last remaining basement wall.

to complete operations by the end of June 2016. Over the remainder of the summer, we plan to demobilize our high probability engineering controls (including the tent, chemical air filtration system and Shelter-in-Place alert system). We anticipate resuming low probability operations at the site later in the fall. For now, the overall project completion is still scheduled for the summer of 2017. We will continue to update you on the schedule as we progress.

Pilot Project to assess use of new technology in Spring Valley remediation

The U.S. Army Corps of Engineers is teaming up with the Naval Research Laboratories (NRL) to test new Advanced Classification (AC) technology in a Pilot Project to survey Spring Valley residential properties in search of buried munitions. Depending on the results of this Pilot Project, this technology could reduce costs and the timeline associated with the Remedial Action for potential explosive hazards in certain areas of the neighborhood. (See Pilot Project on page 2)

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To be added to our email list please email Rebecca Yahiel with the Community Outreach Team at rebecca.e.yahiel@usace.army.mil.

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Traditional Approach

Traditionally, geophysically surveying a property for munitions involved the use of magnetometers or electromagnetic detectors to identify all spots with metallic signatures below the ground, called anomalies. During the initial investigation, after a property was surveyed and the anomalies were marked, crews intrusively investigated and removed most or all of the anomalies depending on the strength of their metallic signature. The vast majority of these uncovered anomalies were “cultural debris,” which includes items like horseshoes, scrap metal and other non-military-related items or non-hazardous munitions debris.

However, intrusively investigating every single anomaly can add significant time and cost to a removal effort. By using AC, the Corps hopes to remove significant time and cost to the removal effort.

Advanced Classification (AC)

AC involves state-of-the-art electromagnetic survey tools that not only locate buried metallic objects, but identify which anomalies are buried intact munitions. These tools, known as a Time-domain Electromagnetic Multi-sensor Towed Array Detection System (TEMTADS) and Man Portable Vector (MPV), create an electromagnetic pulse over an anomaly and listen for the items’ ‘decay curve.’ Different items have unique decay curves. AC files contain an extensive library of all the standard ordnance used by the Department of Defense, and specialty devices developed at the American University Experiment Station (AUES) will be added. During the Pilot Project, the decay curves of detected anomalies will be compared with the files in the AC library to identify the anomalies.

How the Pilot Project Works

The purpose of the Pilot Project is to assess the possibility of using AC at residential properties within the Spring Valley FUDS during the Remedial Action phase. AC has been successfully used in other non-residential settings, but the Pilot Project will seek to determine how effective the technology is in a residential setting like Spring Valley, with varied topography



Advanced Classification technology, specifically a TEMTADS, being used to map the subsurface as part of Unexploded Ordnance Removal at New Boston Air Force Station in New Hampshire.

and multiple potential interfering factors like existing homes, landscape, hardscape and utilities.

During the Pilot Project, AC will be used to survey five properties this summer. The five properties will be selected by our geophysical team to ensure the technology is tested on a diverse and representative sample of properties. All anomalies located by the AC tools will be removed to ensure this new technology properly identifies munition hazards in a residential setting.

The results of the Pilot Project will determine to what extent, if any, AC will be used during remedial work to remove potential explosive hazards at the properties in the Spring Valley FUDS. If the Pilot Project results show the AC technology is not effective at residential properties, then the Corps will continue to rely on traditional digital geophysical mapping methods. Public safety is the Corps’ number one priority and removal actions will be carried out only using proven methods.

After the Pilot Project fieldwork is completed this summer, the team will write a final report outlining the findings of the Pilot Project. This report is expected to be completed by the end of the calendar year. The findings of the report will be incorporated into the Site-Wide Remedial Design, which will provide the outline for removal actions recommended by the Proposed Plan.



Groundwater RI almost complete, next step Feasibility Study

Through a network of 55 monitoring wells of different designs and 25 surface water locations throughout the Spring Valley Formerly Used Defense Site (FUDS), the Corps and its contractors monitored groundwater in the FUDS from 2005 to 2015 as part of its Groundwater Remedial Investigation (RI).

This investigative monitoring effort has provided data used in drafting the Groundwater RI report. The purpose of the Groundwater RI report is to determine the nature and extent of groundwater contamination and assess any potential risks to human health and the environment. The team analyzed Spring Valley groundwater and surface water for more than 250 chemicals. Forty-six different chemicals were detected

throughout the course of the 10 years of monitoring. Based on frequency of detection and water concentrations, five chemical (arsenic, cobalt, manganese, perchlorate and strontium) were identified as Chemicals of Potential Concern (COPCs) based on EPA's safe drinking water standards.

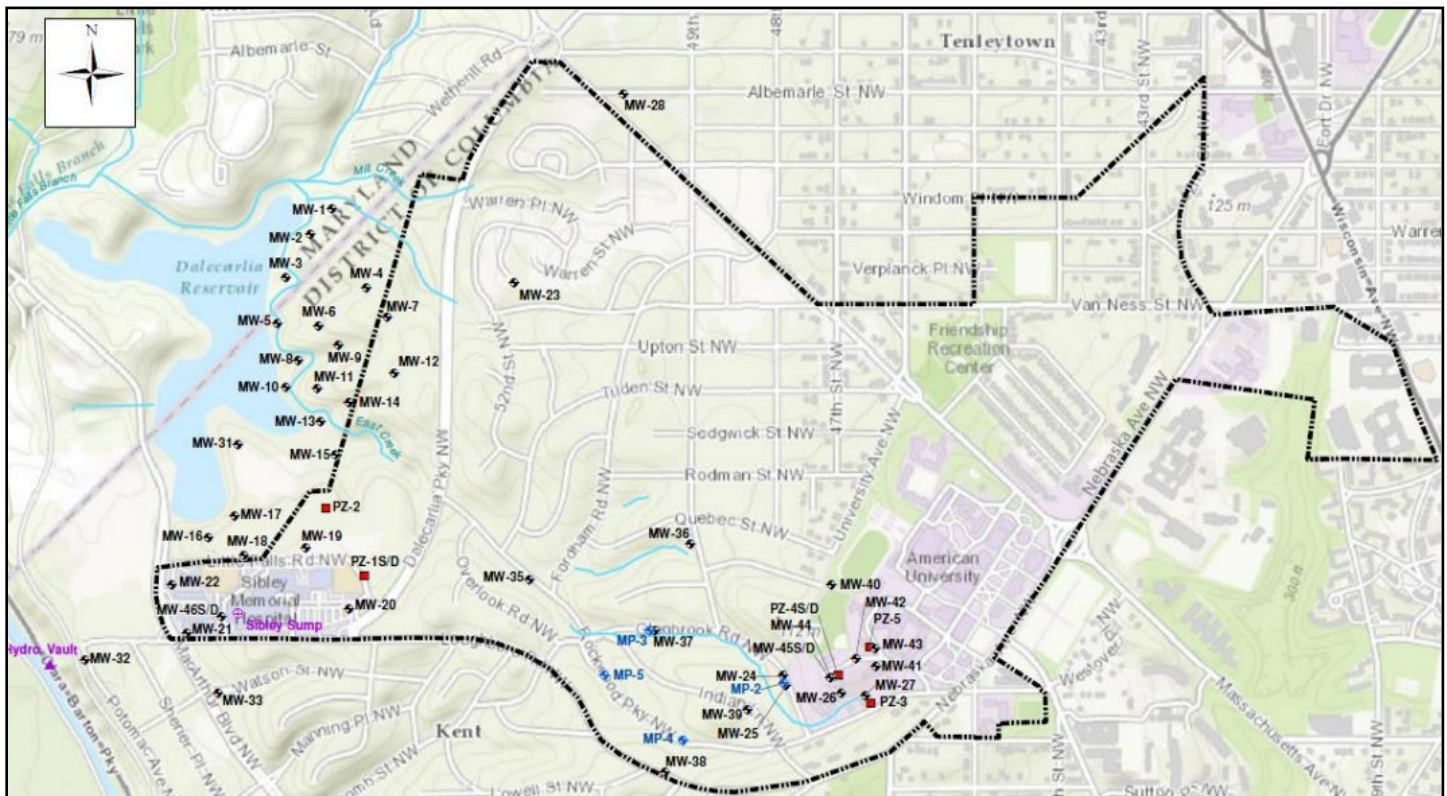
It is important to note that the groundwater in Spring Valley is not currently used as drinking water, as a public water supply is available to all residents of Spring Valley.

A risk assessment was completed as part of the Groundwater RI report, which looked at both current exposure pathways and potential future exposure to groundwater. Based on the current exposure pathways and the chemical concentrations detected during

the monitoring efforts, there is no unacceptable risk to human health or the environment.

However, if Spring Valley groundwater were to be used for drinking water in the future, there would be an unacceptable risk in one area of Spring Valley including Glenbrook Road and Kreeger Hall on American University. Based on the findings of the Groundwater RI, a Feasibility Study will be written to evaluate alternatives to eliminate the risk associated with potential future use of groundwater as a drinking water source in the Glenbrook Road/Kreeger Hall area.

The Corps is working to address our regulatory Partners' comments on the Draft Groundwater RI report in order to finalize this report and move into the Feasibility Study phase.



The above map shows groundwater monitoring wells placed throughout the Spring Valley Formerly Used Defense Site. These wells have been monitored for several years and the data gathered was used in developing the Draft Groundwater Remedial Investigation (RI) for Spring Valley. In general, the monitoring wells were placed near known disposal areas as well as near Dalecarlia Reservoir to ensure no contamination was entering the reservoir. For more information on the Draft Groundwater RI, which was presented at the March Restoration Advisory Board meeting, visit www.nab.usace.army.mil/SpringValleyRAB

