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.

U.S. Army Corps of Engineers
Baltimore District

The Corps'pondent

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

a newsletter by the U.S. Army Corps of Engineers for Spring Valley project area residents

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Community meeting highlights project news

By Ed Hughes and Craig Georg
Spring Valley project managers

Several project updates were provided and a variety of questions were asked and answered at the Oct. 18 Spring Valley community meeting. The primary focus was the initial groundwater study results, and the first round sampling outcome was presented. For more information, see the story on page 2 and the brief below.

Other subjects included the Lot 18 dig, the anomaly investigations conducted on nine residential properties last summer, the range fan, the phytoremediation study and the overall project schedule.

About 12 people attended the meeting, held in the Great Hall of the Metropolitan Memorial United Methodist Church. Joining the Spring Valley residents present were Penny Pagano of Councilmember Kathy Patterson's staff, Lenny Siegel, executive director of the Center for Public Environmental Oversight, and other nonresidents.

Jim Sweeney and Judith Johnson of the D.C. Department of Health, and Steve Hirsh and Bill Hudson of the Environmental Protection Agency also attended the meeting and were available for questions.

Project Manager Ed Hughes, standing, answers questions about the groundwater study while Craig Georg, the other Spring Valley project manager, and Gary Schilling, the program manager, look on.

The audience listens to a presentation during the Oct. 18 Spring Valley public meeting.

U.S. Army Corps of Engineers photos by Mary Beth Thompson

Program manager detailed

Gary Schilling, Spring Valley program manager, has been temporarily promoted to another position within the Corps' Baltimore District. Schilling will not be involved in day-to-day Spring Valley activities but is available to the team and to stakeholders if needed. He will return to his Spring Valley project duties Feb. 1.

Project updates

Groundwater study

In August, when first round samples were taken, 23 out of the planned 30 monitoring wells had been installed. Six more wells are now being installed. The other well is awaiting access approval.

Groundwater samples will be extracted from the six new wells in December to complete the first round. The partners expect to receive those results in January. After evaluating the data in combination with the data from the August sampling, the partners will meet to discuss and agree on a plan for the next round of sampling that is expected to take place in the spring.

Lot 18 & vicinity

Since June 2004, workers at Lot 18 have recovered 62 munitions debris items and more than 1,000 glassware

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Partners announce early groundwater sampling results

According to analyses of preliminary chemical results, there were no chemical warfare agents or explosives detected in groundwater samples gathered in August from monitoring wells. However, low levels of perchlorate and arsenic were found. The preliminary results were released jointly in October by the Spring Valley partnership, which consists of the U.S. Army Corps of Engineers, the Environmental Protection Agency and the D.C. Department of Health.

The parameters analyzed for included chemical warfare materiel and their breakdown products, explosives and their breakdown products, volatile and semi-volatile organic compounds, perchlorate and various metals such as arsenic, lead and mercury.

Many of the groundwater samples were taken from monitoring wells in the vicinity of the Dalecarlia Reservoir, an important component of the Washington Aqueduct drinking water system for the District of Columbia and parts of northern Virginia. The Aqueduct regularly tests samples from the reservoir and the finished drinking water, and the results consistently show that the drinking water is safe. None of the results found in the groundwater study contradict the results of the Aqueduct's regular testing.

Perchlorate was found in several monitoring wells to the east and south of the reservoir and at the Lot 18 debris area on the southwestern edge of the American University campus that is currently being excavated. The highest perchlorate concentration, 24 parts per billion, was found to the south of the reservoir at the same location where perchlorate was previously detected at 58 ppb in 2003 by EPA.

Contractors take samples from a groundwater monitoring well. *U.S. Army Corps of Engineers photo*

Historical research of the Army's World War I era American University Experiment Station activities indicates perchlorate was involved in at least two aspects of research at the experiment station. Perchlorates were studied in the production of screening smokes and in search of compounds that would indicate the presence of mustard gas and for protective ointments. It is also a component of road flares, airbags, fireworks and other commercial products, and may be naturally occurring in some locations. Perchlorate dissolves easily and moves quickly in groundwater and surface water. Under certain circumstances, perchlorate can interfere with the functions of the thyroid gland.

EPA has established a reference dose for perchlorate that translates to a Drinking Water Equivalent Level of 24.5 ppb. A Drinking Water Equivalent Level, which assumes that all of the contaminant comes from drinking water, is the concentration of a contaminant in drinking water that will have no adverse effect with a margin of safety. A reference dose is a scientific estimate of a daily exposure level that is not expected to cause adverse health effects in humans.

Other perchlorate detections ranged from less than 1 ppb to 10.6 ppb. Perchlorate in a sample of untreated water in the reservoir was less than 1 ppb. The finished water produced by Washington Aqueduct is tested weekly for perchlorate, and the levels have never been a matter of concern.

The perchlorate results have been validated, which means the laboratory results have been reviewed and authenticated. The data validation process for the other results is ongoing. A report will be released to the public after all of the results have been validated and reviewed by the partners.

Arsenic was found at low levels in two wells and two surface water samples. Arsenic was found at less than 1 ppb in the reservoir sample. The federal drinking water standard for arsenic is 10 ppb. The highest arsenic concentration in the groundwater was 3.5 ppb. Arsenic was used

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Soil samples are taken from one of this year's fern plots.

A surveyor uses a magnotometer to detect underground anomalies.

U.S. Army Corps of Engineers photos

Update *continued from p. 1*

items. Lot 18 is an elongated area located along the southwestern edge of American University and behind properties on Rockwood Parkway.

In the past, the area was used for debris disposal. Workers have also removed about 1,300 pounds of other metal waste and about 2,000 tons of soil and nonmetallic rubbish.

The work team continues to find ways to improve efficiency. Even though the amount of dirt removed is roughly twice what was planned, excavation remains on schedule and within budget. January is still the target for completion. The investigation of six anomalous areas in the same vicinity, which could be burial pits, is scheduled to follow the Lot 18 dig. That work should be completed by March, as long as nothing is found that would change the investigation procedures, such as munitions or chemical warfare materiel.

In Fiscal Year 2007, which runs from October 2006 to September 2007, the team plans to return to the Glenbrook Road property where there is an unexcavated burial pit.

Anomalies investigations

Major burial pits have been found in only two areas of the Formerly Used Defense Site so far: 52nd Court and the Glenbrook-Rockwood area. A total of four suspect munitions items have been found in the rest of the project to date. The partners — the Corps, the EPA and D.C. Health — decided in 2001 that additional properties should be surveyed using geophysical equipment to look for possible buried metallic objects.

Since then, 46 properties have been surveyed. Of those, 31 have been investigated by digging, and no items of concern were uncovered. The types of objects found include munitions fragments and construction debris.

Fifteen properties await investigation, including the Glenbrook Road pit. The partners plan to survey at least 11 more properties in future years.

Soil removals

Arsenic-affected soil removals began in 2002 with the properties that have the highest levels of contamination. Contractor Sevenson just finished work on the 42nd property on the list of 140 properties to be remediated. Remediation is accomplished by removing soil from contaminated grids on the property, restoring them with clean soil and sod, and by reimbursing the owner for other landscape items damaged or destroyed.

Overall, more than 50 percent of the grids with elevated arsenic levels have been completed. This work will continue through 2009.

Phytoremediation study

The team is wrapping up the second year of the phytoremediation study, which is testing the use of ferns to reduce arsenic levels in soil. Last year's average reduction was 9 parts per million. In late September, soil samples were collected from this year's plots. Preliminary test results indicate a similar average result is expected.

The partners will evaluate the data from both years' growing seasons to determine the viability of phytoremediation as a clean-up tool in certain cases. The decisions on this issue will probably be made this winter.

What was that noise?

If you were awoken by the Lot 18 emergency siren in the early morning hours of Nov. 9, please accept our apologies. The siren spontaneously sounded for about five minutes. No work was being done at the time, and there was no emergency.

The cause is being investigated, and repairs will be made. In the meantime, both Lot 18 sirens have been turned off. Digging had already been stopped to move the tent to a new location. Digging will not resume until the siren is repaired.

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Groundwater

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at the experiment station. Arsenic is a naturally occurring substance that is a known carcinogen. It occurs in several forms, often in compounds with other chemical elements.

This first round of data initially characterizes the groundwater beneath Spring Valley, but the partners could not conclusively determine whether or not the low level detections are related to World War I era activities. Further field work is planned to address this question. Three background wells are planned for locations outside of the project area to help determine whether the detected compounds are experiment station related, the result of other human activities or naturally occurring.

One of the goals of the groundwater study is to determine whether the experiment station activities have affected the groundwater in Spring Valley. Other goals are to characterize the direction of the groundwater flow and to determine whether there is a potential influence on the Dalecarlia Reservoir.

These first round results are generating follow-up investigative questions that the partners will consider when designing the next sampling round. The partners will begin discussing the next steps in the coming months.

(Information is from a news release issued jointly by the Corps of Engineers, the EPA and D.C. Health.)

Having digging done on your property?

Safety fact sheets designed for contractors working in Spring Valley are available from the Corps of Engineers:

- Call the toll-free information line at (800) 434-0988; or
- Call the community outreach team at (410) 962-0157; or
- Send a request via email to *Ben.Rooney@usace.army.mil*.

Provide a mailing address, and the safety fact sheet will be sent to you.

Addressing a survey result

A recurring comment in the community survey responses was that descriptions of locations where cleanup work is being done are vague. That is true, and the practice is deliberate. To help preserve property owners' privacy, the team avoids disclosing specific addresses when possible.

Restoration Advisory Board meeting
Tuesday, Dec. 13, 7 p.m.
St. David's Episcopal Church
5150 Macomb Street NW

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