



# Beltsville Agricultural Research Center BARC 22: College Park Landfill



June 2005

The U.S. Department of Agriculture's Agricultural Research Service (ARS) is in the process of conducting comprehensive investigations at the Beltsville Agricultural Research Center (BARC). These investigations are aimed at identifying and evaluating potential "areas of concern" (AOCs) where hazardous substances may have been disposed of or otherwise exposed to the environment.

ARS is undertaking a Remedial Investigation and Feasibility Study (RI/FS) at the College Park Landfill site. An RI is a carefully structured process of collecting environmental samples, analyzing them for hazardous substances, and evaluating potential risks that any contaminants may pose to the environment or human health. The FS evaluates possible alternatives for cleanup to address any risks that have been identified, taking into account regulatory requirements, effectiveness, implementability, cost, community acceptance, and other factors.

## Background

The College Park Landfill site is located in the west-central portion of the Central Farm area of BARC, approximately 800 feet east of Edmonston Road, and southeast of the intersection of Sunnyside Avenue and Edmonston Road. The site is about 30 acres, and is located next to wetlands associated with Beaverdam Creek.

Historically, the site was mined for sand and gravel deposits in the mid- to late 1950s and then used as a municipal landfill by College Park, MD. The College Park Landfill accepted municipal and solid wastes from 1954 to 1978. Although the landfill primarily accepted residential refuse and construction debris, some chemical wastes may also have been disposed in the

landfill. Landfill operations ended in 1978, and the western and central portions of the former landfill were covered and graded to accommodate baseball fields.

Several preliminary environmental studies of the College Park Landfill have been completed, including Site Screening Process (SSP) investigations. An SSP determines if an AOC requires remedial action, needs further study through the RI/FS process, or no further action is needed.

The College Park Landfill SSP concluded that there was further investigation needed, and recommended the completion of an RI/FS. An RI/FS Work Plan was prepared to provide the roadmap for conducting further investigations of the site--addressing data gaps and developing recommendations for any required remediation (cleanup).

## Remedial Investigation/Feasibility Study Objectives and Scope

When the landfill was shut down, there were no closure activities to reduce or prevent the potential for contaminant migration from the landfill. Some waste is visible on the surface today along the perimeter faces of the landfill.

The RI/FS was planned to:

- Determine if contaminants are present in groundwater and surface water as a result of contaminants present in the landfill.
- Estimate methane gas and leachate generation rates within the landfill and its immediate vicinity.
- Evaluate subsurface geology and

engineering aspects of the landfill.

- Identify sensitive environments and wetlands in the vicinity of the landfill, Beaverdam Creek, and the floodplain.
- Identify regulatory requirements and potential remedial alternatives to address environmental problems that are identified from the investigations.

### **Community Relations**

Community relations activities for the College Park Landfill are being conducted within the framework of BARC's facility-wide Community Relations Plan. There is a mailing list of interested individuals and organizations, an "Information Repository" for public access to information about the RI/FS process, and public meetings are periodically held.

### **Remedial Investigation/Feasibility Study Activities and Schedule**

The Field RI was completed in 2001. A variety of advanced field investigation techniques, including Geoprobe® soil probing and sampling equipment were used to collect samples and identify potential sources of contamination. A series of nine monitoring wells have been installed to collect groundwater samples. Samples of landfill gas, leachate, stream, and stream sediment have also been collected and analyzed.

As part of the RI/FS process, a risk assessment is being prepared using the data generated from the field sampling program. The risk assessment will identify existing or potential risks to human health and the environment from contaminants at the site, and will also be used to evaluate possible remedial alternatives. To date, sampling results indicate that groundwater contaminants only slightly exceed drinking water standards.

Discussions with EPA have determined that the landfill may be a good candidate for using a vegetative cap for closure purposes. A vegetative cap uses trees, plants, and compost instead of clay and plastic to minimize the infiltration of precipitation into the underlying wastes. A three-year pilot study has been proposed to demonstrate the effectiveness of a vegetative cap for the landfill. In addition to initial cost benefits, a vegetative cap would reduce maintenance costs and enhance the natural habitat. Construction of the test plots has been completed, and data is being collected in support of the study.

The RI report will be completed later this year. However, completion of the Feasibility Study for the site will await the completion of the pilot study in order to determine the best remedy for the site.

### **For More Information...**

Contact Kim Kaplan, ARS Information Staff, at 301/ 504-1637, by e-mail at [kaplan@ars.usda.gov](mailto:kaplan@ars.usda.gov), or visit the ARS information repository located in Room 014, Building 003, 10300 Baltimore Avenue, Beltsville, MD. The information repository is open to the public Monday through Friday, 8:30am to 4:30pm. The information repository is also available at the Prince George's County Memorial Library at 4319 Sellman Road. The library's hours of operation are Monday through Wednesday, 10 am to 9 pm; Thursday and Friday, 10 am to 6 pm; and Saturday, 10 am to 5 pm.