MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Suite 625 • Baltimore, Maryland 21230-1719
410-537-3493 • 800-633-6101 x3493 • http://www.mde.state.md.us

Waste Management Administration • Environmental Restoration & Redevelopment Program

ANNE ARUNDEL COUNTY LANDFILL
Glen Burnie, Maryland
(MD-035)

Site Location

The 130-acre site is located in the northern portion of Anne Arundel County at the intersection of Dover Road and Route 10 in Glen Burnie, Maryland. The Maryland grid coordinates are 493,000 N and 913,000 E.

Site History

In the early 1940s, the site was owned and operated as a borrow source for sand and gravel by Mr. Harry Smuck. In the early 1950s, Mr. Smuck began to allow neighbors to use the sand and gravel borrow pits for unpermitted waste disposal. Smuck's Dump was closed and taken over by Anne Arundel County in January 1970. Anne Arundel County operated the facility as the Glen Burnie Sanitary Landfill from 1970 to 1982.

Landfill operations at the site ceased in 1982. The County placed a one-to-two foot thick soil cover over the dump area, planted vegetation and installed additional vents to release methane. In 1983, the U.S. Environmental Protection Agency conducted sampling at the site and detected trichloroethene, dichloroethene and chromium in the on-site monitoring wells.

Environmental Investigations and Actions

The site was proposed for the NPL by the EPA on July 1, 1998, and listed on the NPL on February 11, 1991. Anne Arundel County challenged the EPA's action. The Court, stating that the EPA's reliance on unfiltered groundwater samples was "arbitrary and capricious" and the "EPA was obliged to give notice of the well on which it relied," granted the County's petition for review on May 1, 1992 and remanded the case back to EPA. Subsequently, the site was removed from the NPL.

Current Status

In 1982, EPA contracted JRB Associates to conduct a Hazardous Waste Site Assessment of the Smuck's Dump portion of the landfill. This report recommended that groundwater monitoring be instituted and the thickness of the cap on portions of the landfill be increased. Additionally, Anne Arundel County contracted with Hardin Associates to conduct an Investigation.

In 1983, Anne Arundel County Bureau of Solid Waste contracted with Hardin Associates to conduct an additional investigation to identify the source and extent of volatile organic compounds found in three of the existing monitoring wells. The investigation included the installation of approximately 20 borings and monitoring wells. Hardin Associates concluded that the source of the volatile organic compounds was Smuck's Dump portion of the Glen Burnie Sanitary Landfill.

In 1986, the NUS Corporation, under contract to EPA, conducted an investigation, which included collection and analysis of groundwater, surface water and sediment samples and a Hazard Ranking System evaluation. Seventeen water supply wells were identified within a

three-mile radius of the landfill. On-site groundwater samples indicated the presence of volatile organic compounds, cyanide and lead. Inorganic compounds were also detected in sediment and surface water samples.

In 1986, Whitman, Requardt and Associates conducted an additional investigation for Anne Arundel County in order to expand upon the findings of the 1983 Hardin Associates report. Eleven additional monitoring wells were installed. A total of 25 monitoring wells were sampled. This report identified six hydrogeologic units at the site, three of which were water-bearing units. The report also recommended installing additional monitoring wells.

In 1988, Whitman, Requardt and Associates conducted an additional investigation for Anne Arundel County in order to implement the recommendations of the 1986 report. Twenty-eight additional monitoring wells were installed. This report recommended capping the landfill as a source control measure and continued monitoring of the groundwater.

In 1992, Pursuant to a Consent Agreement with the Maryland Department of the Environment signed in 1990, Anne Arundel County contracted with Geosyntec Consultants to conduct a Remedial Investigation/Feasibility Study at the site. Nine additional wells were installed, new and existing wells were sampled, aquifer testing was conducted, borehole geophysics and a soil gas evaluation were conducted and a baseline risk assessment was prepared. The horizontal and vertical extent of volatile organic compound contamination was identified. The baseline risk assessment concluded that the landfill does not pose an unacceptable risk to human health or the environment.

In 1995, Anne Arundel County contracted Geraghty and Miller to conduct an additional investigation to supplement the 1992 investigation and to support the evaluation of remedial alternatives. The report concluded that the on-site soil and groundwater contamination is limited in areal extent and does not pose an unacceptable risk to human health or the environment.

In 1996, a Streamlined Feasibility Study was submitted to MDE.

In 1997, sediment sampling was conducted in Furnace Branch Creek in order to support the conclusions of the risk assessment. The Second Addendum to the Baseline Risk Assessment was submitted in December 1997. It supports the previous conclusion that the landfill poses no unacceptable risk to human health or the environment.

Under the Consent Agreement signed by MDE and Anne Arundel County, Anne Arundel County agreed to finalize the Remedial Investigation, complete a Feasibility Study and conduct remedial activities at the site. An Amended Consent Agreement was signed in October 1993, which provided for the submission of a work plan to conduct a detailed evaluation of existing or potential environmental risks associated with the landfill. The Second Amended Consent Agreement, signed in March 1997, finalized the Remedial Investigation report, the Feasibility Study and outlined the remediation planned for the site.

In November 1997, Anne Arundel County submitted the Remedial Action Closure Design Work Plan and the Environmental Monitoring Plan, which were prepared by Geosyntec. The remediation plans for the site include grading of the landfill surface, installation of a final cover and an environmental monitoring system, which will include monitoring of the air,

sediment, groundwater and surface water. Anne Arundel County anticipates beginning the remedial activities during the Fall of 1998.

Facility Contacts

Contact Name	Contact Organization	Contact Telephone #
Arthur O'Connell	Maryland Department of the Environment Site & Brownfields Assessment/State Superfund Division	(410) 631 – 3493

Last Update: