



Facts About...

Scarboro Landfill MD-236 (State Master List)

Site Location

Scarboro Landfill is a closed, unlined municipal landfill located east of Scarboro Road and north of Sandy Hook Road in Street, Harford County, Maryland. It occupies a portion of the present-day Harford Waste Disposal Center (HWDC), a lined, sanitary landfill. Land uses in the vicinity are primarily agricultural and residential. H.P. White Laboratories, a commercial ballistics laboratory is located several hundred feet southwest of the landfill.

Site History

Scarboro Landfill received municipal waste from approximately 1956 until 1986. It received a formal permit to operate in 1980 and the permit was renewed in 1983. In 1985, a permit was issued for the closure of the old landfill and the design, construction and operation of the new HWDC, which opened in July 1987. Portions of the Scarboro Landfill are now covered by the HWDC.

Volatile organic compounds (VOCs) were detected in groundwater samples collected from the Scarboro Landfill between 1984 and 1986. Based on these findings, the State of Maryland required Harford County to conduct a hydrogeological investigation of the landfill.

Environmental Actions and Investigations

Harford County conducted the first phase of its hydrogeologic investigation in 1991. Results of this investigation identified a limited area of groundwater contamination located southwest of the Scarboro Landfill. The detected contaminants included chlorinated hydrocarbons, freon, ketones, manganese, nickel and lead. Low-level organic compounds were also detected in domestic wells located hydraulically upgradient of the landfill; however, they were due to sources unrelated to the landfill.

The second phase of the hydrogeologic investigation was completed in 1993. Results of this study further quantified groundwater conditions at the landfill and recommended the installation of a remediation system to address the contaminated groundwater.

In 1994, the U.S. Environmental Protection Agency (USEPA) accepted the Scarboro Landfill into its State Deferral Pilot Program. Under the terms of this program, the Maryland Department of the Environment (MDE) was charged with ensuring the landfill would be evaluated and remediated in a manner paralleling the USEPA Superfund Program. MDE would keep USEPA apprised of the site's progress, but USEPA would not be directly involved in routine project management and review activities.

MDE's investigation and remediation requirements for the site were memorialized in a December 1994 Administrative Consent Order (ACO) entered into with Harford County. The ACO required Harford County to perform a Remedial Investigation/Feasibility Study (RI/FS), construct and operate an Interim Groundwater Remediation System, perform long-term groundwater monitoring, and implement a community participation program.

The findings of the requisite RI/FS were submitted to MDE in 1998. The RI report did not identify any unacceptable risks to human health or the environment and the FS report called for the use of institutional controls (HWDC/Scarboro Landfill to remain under County ownership), landfill capping (already provided by lined HWDC cells overlying Scarboro Landfill), and continued groundwater remediation, and long-term monitoring to address the contamination concerns at the landfill.

Harford County began operating an Interim Groundwater Remediation System at the Scarboro Landfill in February 1998. The system is comprised of eight wells installed in an L-shaped configuration on the south and west of the landfill. Recovered groundwater is conveyed to a treatment building where process equipment reduces iron and manganese concentrations to acceptable levels using oxidation and precipitation. The solids generated by this process are collected as solids and disposed of in the lined cells of HWDC. Organic contaminants are removed by adsorption to granular activated carbon. The treated discharge is pumped to a gabion-lined channel leading to a tributary of Deer Creek. Howard County continues to operate and monitor the system and submit quarterly operation reports to MDE.

The Interim Groundwater Remediation System is designed to operate until VOCs concentrations in six off-site monitoring wells fall below the USEPA's Maximum Contaminant Levels (MCLs) for two consecutive semi-annual groundwater-sampling events. The system can remain off so long as long-term monitoring does not indicate a trend of increasing VOCs concentrations.

Except for servicing and routine maintenance, the Interim Groundwater Remediation System has operated more or less continuously since it was activated. An exception to this general trend was when system operation was suspended on March 22, 2000 because of sustained contaminant concentrations below MCLs in the six off-site monitoring wells. The system remained idle until December 1, 2005 when the system was re-started due to presence of vinyl chloride concentrations in one of the six off-site wells exceeding the MCL. The system continues to operate at the present time and MDE continues to receive and review quarterly system operation reports and long-term groundwater/monitoring data. Results of the most recent groundwater sampling available to MDE (October 2007) did not identify any VOCs concentrations exceeding MCLs in the six off-site monitoring wells.

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