

## **MD-261 Charles County**

Charles County Department of Public Works operated the site as a sanitary landfill from 1974 until 1990.

In 1984, methane gas build up in a nearby residential well blows off the well head.

In 1985, DHMH completed a Preliminary Assessment.

In 1987, Charles County installed a soil venting system.

In 1991, NUS Corporation completed a Site Inspection that revealed on-site VOC contamination.

In 1995, MDE completed an Expanded Site Inspection that revealed on-site VOC contamination.

## **CHARLES COUNTY LANDFILL Pisgah, Maryland**

### ***Site Description***

The Charles County Landfill is located approximately 0.5-mile southwest of the junction of Routes 425 and 484 near rural Pisgah, Charles County, Maryland.

The landfill has reached capacity and has been capped and vegetated. An extensive methane gas collection system has been installed in which blowers draw methane gas from the landfill waste and move it through pipes to large elevated flares that continually burn off the captured methane gas. Currently, the site is used primarily as a recycling drop-off center for cardboard, aluminum, glass and plastic. The access road is gated and locked after normal drop off hours. The landfill is fenced around the entire perimeter and has a locked access gate. There are no plans for future use of the property at this time.

### ***Site History***

The Charles County Department of Public Works has owned the site since June 1968 when it was purchased from JD & S Construction Company, Inc. The County has utilized the site as a permitted sanitary landfill since 1974. Prior to 1974, portions of the property were reportedly used by trespassers for unpermitted dumping, fly ash disposal and open burning of miscellaneous debris. The permitted landfill accepted municipal wastes from the local communities and sewage sludge from the Mattawoman Wastewater Treatment Plant in Indian Head, Maryland. In December 1990, the landfill reached its capacity and the Maryland Department of the Environment (MDE) issued a Consent Order to vertically extend the landfill capacity until a new landfill location could be found.

### ***Environmental Investigations***

The Department of Natural Resources installed four monitoring wells on the landfill in 1974, two of which were destroyed. In 1979, the Department of Health and Mental Hygiene's (DHMH) Hazardous and Solid Waste Management Administration installed a series of six more monitoring wells, one of which was destroyed. MDE files do not indicate how the wells were destroyed.

Regular sampling of on-site groundwater wells and surface water has occurred since 1979 and has historically shown low concentrations of volatile organic compounds (VOCs). In early 1984, on-site monitoring well sampling revealed elevated levels of VOCs. Methane gas was also found to have migrated into a nearby residential well after the well head cap was blown off. Consequently, the Charles County Department of Public Health began a groundwater sampling investigation on nearby residential wells. Two of the ten wells sampled revealed significant VOC contamination. Charles County replaced the contaminated shallow residential wells with deep aquifer wells.

In June 1986, Dames and Moore completed a Phase I study for Charles County that investigated the extent of groundwater contamination. The Phase I confirmed previous site investigations and samplings. In November 1986, Dames and Moore initiated a Phase II expanded hydrogeological evaluation to define groundwater flow direction under the landfill and to collect groundwater quality data. Several low level organic compounds were detected, including trichloroethene and benzene which were found to be in exceedence of drinking water standards. Thirteen other VOCs were detected at elevated concentrations.

During the Phase II investigation, the County installed a methane gas venting system along the northeastern perimeter of the landfill. TARGET Environmental Services, Inc. conducted a soil gas survey for the County in February 1987 and indicated methane levels were significantly reduced by the venting system.

In August 1991, the NUS Corporation Superfund Division completed a Site Inspection under contract with the U.S. Environmental Protection Agency (EPA). Samples of on-site groundwater, surface water, sediments, and soil and off-site groundwater from private wells were collected. Results from the on-site groundwater samples revealed: 1,1 dichloroethane at 47 parts per billion (ppb); 1,2 dichloroethene at 33 ppb; ethylbenzene at 86 ppb; total xylenes at 120 ppb; and zinc at 2,090 ppb. The off-site sampling did not reveal significant levels of contamination.

In August 1995, MDE completed an Expanded Site Inspection under contract with EPA to determine the potential for the release of hazardous waste from the site. Site sampling showed organic and inorganic contamination in all media (soil, sediment, groundwater, and surface water). The toxicological evaluation revealed on-site groundwater contamination levels above the EPA acceptable cancer risk range for adults and children consuming drinking water. The evaluation also showed that contamination of the soil, sediment, and surface water does not pose an unacceptable risk to humans.

### ***Current Status***

Under a Cooperative Agreement with the EPA Superfund Program, the MDE is conducting a site survey of the Charles County Landfill site. The Site Survey Initiative was proposed to reassess the status of those sites that were previously designated No Further Remedial Action Planned by the EPA. This initiative is intended to determine if site conditions have remained stable, provide a current description of the site, and identify and address any new pathways for contamination. The initiative is also intended to determine whether the State should recommend further investigation by the EPA, oversight by the State and no further investigation by the EPA, or no further action be taken by the EPA or the State and the State designate the site as a "Formerly Investigated Site."

### ***Site Contact***

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