

**MD-300
Wicomico County**

1938-1972	Site operated as a sand and gravel quarry.
1947	Wicomico County Council purchased the property.
1974-1981	Site operated as an unpermitted landfill and transfer station.
1981	Wicomico County applied to DHMH for, and was granted a Refuse Disposal Permit, Phase I.
1982	DHMH approved Phase II of permit.
	Koppers Company and Grigco Oil Company dumped hazardous substances at the site.
1985	A cease and desist order was issued halting all landfilling operations.
1986	Dresser Inc. disposed of organic solids and metals at site.
1989	HSWMA conducted a <i>Preliminary Assessment</i> and recommended a high priority Site Inspection.
1991	EPA conducted a <i>Site Inspection</i> .
1994	WMA conducted an <i>Expanded Site Inspection</i> .
1995	Sampling of the on-site monitoring wells and off-site residential wells was performed twice.
1996	Monitoring and residential wells sampled once.
	MDE determined no further action necessary.
1997	Monitoring wells and piezometers abandoned.
1999	MDE <i>Site Survey</i> recommended that EPA archive the site.
2000	EPA concurred.

**BLACKWATER SOLID WASTE TRANSFER STATION
Delmar, Maryland**

Site Location

The Blackwater Solid Waste Transfer Station (Blackwater) is located in a rural area four miles west of Delmar, Maryland on the Delmarva Peninsula. The site occupies approximately 31 acres, 27 of which are in Wicomico County and 4 of which extend into Sussex County, Delaware. Blackwater Creek is ¼ mile north of the site. Low-lying marsh areas bordered the site to the north. The site is bordered by an agricultural field to the east and a residence and farmland to the south. The geographic co-ordinates of the site central point are 38°27'25" North and 75°38'53" West.

Site History

Lulu V. Shockly purchased the Blackwater site from Ira C. and Howard J. Ellis on April 10, 1920. On April 30, 1947, the Wicomico County Council purchased the property from Mrs. Shockly. The ownership history prior to 1920 is unknown. The County sold the Delaware part of the site in April 1990. The past and current owners of the Delaware part of the site are unknown.

The Blackwater Solid Waste Transfer Station was operated as a sand and gravel quarry from 1938 to 1972. Circa 1974 to 1981, the site was operated as an unpermitted landfill and transfer station. In December 1981, Wicomico County submitted an application to the Maryland Department of Health and Mental Hygiene (DHMH) for a Refuse Disposal Permit. DHMH approved Phase I of the application and the subsequent Phase II and Phase III portions of the permit in 1982 and 1984, respectively. Twelve ground-water monitoring wells were installed at the site as part of the permitting process.

During the landfill period, the site was used for the disposal of raw septage, construction, demolition and land-clearing debris, rubber tires, and possibly other materials. The site consisted of four ponds, three rubble piles, two large tire piles, and a rubber-chip pile. An area of partially buried rusted drums was located near the southeastern pond. The two tire piles, which covered areas of landfill waste, contained approximately 1.5 million tires.

In 1982, 300 cubic yards of wood chips and sawdust potentially contaminated with pentachlorophenol and/or copper-chromated arsenate were reportedly dumped at the site by Koppers Company. At the same time, Wicomico County Health Department determined that Grigco Oil Company of Sharptown, Maryland was responsible for depositing 100 truckloads of possible polychlorinated biphenyl-contaminated fill dirt at the site. In 1986, Dresser Industries was found responsible for disposing of approximately 35 (55-gallon) drums containing organic solvents and metals. Many of the drums had opened and the contents had spilled onto the ground. In January 1987, the drums and saturated soils were removed from

the site and sent back to Dresser for proper disposal. Koppers Company, Grigco Oil Company and Dresser Industries were identified as the main generator of hazardous substances brought to the site.

A cease and desist order was issued to Wicomico County on January 25, 1985 after volatile organic compounds were detected in groundwater. The order halted all landfilling operations at the site, but allowed the transfer-station and tire-collection operations to continue.

Environmental Investigations

The Blackwater site has been the subject of soil and groundwater investigations beginning with a geologic and hydrogeologic investigation performed in 1982 as part of the Phase I and Phase II of the permit application. Thirteen monitoring wells and piezometers were installed as part of the process. The Phase II stage of the permit application process also generated a water quality report, which involved only the analysis of general inorganic parameters and concluded there was no significant deterioration of the water quality in the site vicinity except nitrate-nitrogen.

The site was the subject of a *Preliminary Assessment* report by the Maryland Department of the Environment's (MDE) Hazardous and Solid Waste Management Administration (HSWMA) in 1989. The *Preliminary Assessment* recommended a high priority Site Inspection for the Blackwater site.

The U.S. Environmental Protection Agency (EPA) completed a *Site Inspection* report in 1991. Activities during the site inspection included sampling on-site soils, surface water, sediment from the on-site ponds, and groundwater obtained from the on-site monitoring wells and the off-site potable wells. The analytical results of this sampling revealed contaminants in the soils, sediment and surface water. No significant contaminants were detected in the groundwater. In addition to these results, it was found that the material in the drums contained more than 65 parts per million (ppm) methyl ethyl ketone and 40,000 ppm methyl isobutyl ketone. The samples taken from septic sludge had 3,200 ppm toluene, 160 parts per billion (ppb) chlorobenzene, and 170 ppb dichloropropane.

In January 1994, MDE's Waste Management Administration (WMA) conducted an additional site inspection (*Expanded Site Inspection for Blackwater Solid Waste Transfer Station*, August 1994). The investigation included collecting samples from the soil, surface water, sediments and groundwater on and near the site, and residential wells in the vicinity of the site. As a result of this sampling event, soils within the site were determined to be contaminated, but the groundwater at and around the site was determined not to have been adversely affected. As a precaution, the residential wells nearby the site, including a new one located downgradient of the site to the northwest were resampled. Again, the analyses indicated that the site had not adversely affected area groundwater.

On the basis of the favorable findings, MDE recommended that the site be placed on a monitoring program. A sampling plan for the site was developed that included the three deep and three shallow on-site monitoring wells and four off-site residential wells. The sampling was performed on a semiannual basis in 1995 (March and September) and on an annual basis in 1996. Samples in 1995 were collected and analyzed for Contract Laboratory Program (CLP) volatile organic compounds, CLP semi-volatile organic compounds, CLP target inorganic analytes, pesticides and aroclors, and cyanide. No volatile organic compounds, semi-volatile organic compounds, pesticides, aroclors or cyanide were detected in any sample from either sampling event. No inorganic analytes (total metals) were detected above EPA primary drinking water Maximum Contaminant Levels during either event, although iron and manganese were above EPA secondary (aesthetic) Maximum Contaminant Levels in four of the on-site monitoring wells. Generally, metal concentrations were low. Suspended sediment in water from the wells was believed to be the source of iron and manganese.

In 1996, MDE reviewed the on-site removal actions and all subsurface soil and groundwater investigations that had taken place on the Blackwater site. MDE determined that the site caused no contamination detrimental to public health or the environment and no further action was required at that time. In November 1996, MDE approved closure of the on-site monitoring wells and piezometers, and they were abandoned on April 30 and May 1, 1997.

In October 1999, MDE prepared a *Site Survey* for the Blackwater site. The report noted that all tires had been removed from the site by June 1999. Although no significant contamination was detected in soil samples collected during previous environmental assessments, MDE concluded that the soil exposure pathway was a potential threat owing to site history and unrestricted access to the site. MDE recommended EPA archive the site and in January 2000, EPA concurred with the recommendation.

Current Status

This site is on the State Master List that identifies potential hazardous waste sites in Maryland. The Master List includes sites currently identified by EPA Comprehensive Environmental Response Compensation and Liability Information System. EPA has given the site a designation of No Further Remedial Action Planned (NFRAP). The designation of NFRAP by EPA does not mean that MDE has reached the same conclusion concerning further investigation at the site. The information contained in the fact sheet presents a summary of past investigations and site conditions currently known to MDE.

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