**MD-90**
**Prince George's County**

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| 1981 | Notification on Hazardous Waste form submitted to EPA. |
| 1983 | MDE conducted a Preliminary Assessment. |
| 1984 | EPA performed site inspection. |
| 1992 | Triegel and Associates conducted field investigations. |
| 1992 | MDE conducted *Level III Site Inspection Prioritization*. |
| 1995 | MDE collected groundwater samples. |
| 1996 | Expanded *Site Inspection* report prepared for EPA. |
| 2001 | Quarterly sampling performed. |
| 2001 | Topographic site survey completed. |

# BOWIE-BELAIR LANDFILL
## Bowie, Maryland

### *Site Location*

The Bowie-Belair Landfill is located in the town of Bowie, Prince George's County, Maryland. The site coordinates are 38°59'22" North and 76°42' 48" West. The site comprises approximately 120 acres of land and includes two landfill mounds or cells referred to as the Eastern and Western Mounds. The Mounds are connected to a leachate collection system via aboveground conduits. The Western Mound measures approximately 29 acres; it was placed over a former sand quarry. The Eastern Mound covers an approximate area of 53 acres; it is presently fitted with methane vents.

Site access is through Public Works Road, which branches off State Road 450, which in turn branches off State Road 3. The site is limited to the north by heavily vegetated but vacant properties and to the east by the Little Patuxent River. State Roads 3 and 450 constitute the southern boundary of the site and Public Works Road, its western boundary.

### *Site History*

Landfilling activities began at the site in 1960 and continued without permits until 1975. The first regulatory record pertaining to the site is Permit No. 74-16-14-09A issued by the Maryland Department of Health and Mental Hygiene in January 1975. The permit authorized construction of a sanitary landfill on the premises.

In 1975, Browning-Ferris Industries, Inc. (BFI) leased the facility and obtained a Certificate of Use and Occupancy in August 1976 (Permit No. 204-750) from the Prince George's County Department of Licenses and Permits. BFI retained control of all landfilling operations through 1980 when the landfill ceased to operate.

Although Bowie-Belair was a sanitary landfill, BFI reportedly accepted "hazardous material consisting of rotary press cleaning paper impregnated with ink and solvents from the Government Printing Office." BFI also informed the U.S. Environmental Protection Agency (EPA) that "unknown quantities of hazardous waste of undetermined identity were probably mixed with industrial, municipal, and household wastes. Small quantities were probably also mixed with sanitary sewage sludge." Environmental remedial actions such as soil or groundwater treatment, soil excavation, and off-site disposal were not implemented at Bowie-Belair. BFI did, however, ensure that the Eastern and Western Mounds were covered with soil and seeded. These mounds were also fitted with leachate collection sumps, the contents of which were periodically collected and properly disposed of off site. BFI managed such maintenance activities during and after landfilling activities.

### *Environmental Investigations*

In June 1981, BFI submitted a *Notification of Hazardous Waste* form to EPA. The notification led to multiple investigations whose findings were documented by the EPA and Maryland Department of the Environment (MDE) in the reports discussed below.

In 1984, EPA performed a site inspection at the Bowie-Belair site. They collected six aqueous samples from nearby ponds and streams, both up and downstream, a water sample from a private well, a soil sample "near the gas vent area" and four other soil samples along the same streams and ponds. The 1985 EPA report contended that possible on-site contaminants could be detected in nearby wells under flood conditions and reported levels of metals in on-site ponds.

A field investigation in 1992 included installation of five monitoring wells and collection of 15 core samples on and off site, surface and subsurface soil samples, and groundwater and surface water samples.

Samples were analyzed for inorganic, volatile organic, and semi-volatile organic compounds. Concentrations of these compounds were reported in the report of findings.

In 1992, MDE's Hazardous and Solid Waste Management Administration performed a Level III Site Inspection Prioritization of the site. Samples were analyzed for all priority pollutants (volatile organic compounds, semi-volatile organic compounds, pesticides, polychlorinated biphenyls, total metals and cyanides). Organic compounds were detected, but did not exceed applicable standards. Inorganic constituents were also detected, and their concentrations in the samples collected near the Eastern Mound exceeded standards.

In 1995, MDE collected groundwater samples from five on-site monitoring wells and two residential wells within a half-mile radius of the site. Metals and organic compounds were detected in the monitoring wells and elevated concentrations of beryllium were detected in one residential well. MDE also collected surface water and sediment samples from ponds and streams located on and near the site and soil samples from locations on and off site. The samples were analyzed for metals, semi-volatile organic compounds and volatile organic compounds. The analytical results were presented in a report prepared for EPA, *Expanded Site Inspection Report, Browning Ferris Industries, Bowie-Belair Sanitary Landfill*, dated December 1996 and revised May 2001. The results of the toxicological report established that the site presented no direct threat to human health and to the environment.

Compliance sampling performed in early 2001 indicated that all organic compounds were below the method detection limit. However, total unfiltered metal analyses detected antimony in one monitoring well at a concentration of 8 parts per billion (ppb), which slightly exceeded the criterion of 6 ppb (*MDE Cleanup Standards for Soil and Groundwater*, December 2000). Cadmium was detected above the 5 ppb criteria in three monitoring wells at concentrations of 6 ppb, 7 ppb, and 14 ppb. Dissolved (filtered) metals were below the MDE criteria in all samples.

In early 2001, a topographic site survey was completed, the erosion control system was evaluated, and a methane vent was installed in the Western Mound.

### *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's 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.

### *Current Activity*

MDE is monitoring the site in terms of erosion control measures for the landfill cover, leachate collection, and other ecological factors pertaining to the local flora. The site owners are addressing MDE's methane gas emission and leachate collection system concerns. Additionally, the owners have implemented a quarterly groundwater-monitoring program.

### *Future Activity*

MDE has requested that the owners evaluate the soil cover on the landfill and provide an accurate groundwater contour map.

### *Facility Contact*


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