

# South Brunswick Landfill

## New Jersey

EPA ID#: NJD980530679

### EPA REGION 2

Congressional District(s): 12

Middlesex

1/2 mile northwest of Route 1

#### NPL LISTING HISTORY

Proposed Date: 12/1/1982

Final Date: 9/1/1983

Deletion Date: 2/27/1998

## Site Description

The South Brunswick Landfill covers 68 acres in Middlesex County. The site was a landfill for over 20 years before it was closed by the State in 1978. The landfill received municipal refuse, pesticides, chemical wastes, and hazardous wastes. In 1980, the EPA conducted an investigation and found volatile organic compounds (VOCs) and iron in the groundwater and surface water. The landfill is adjacent to a school, a park, and private residences, although a substantial portion of the property is surrounded by woods. Residences are located as close as 100 to 200 feet from the site. A nearby brook feeds into a public drinking water supply 10 miles downstream.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions

## Threat and Contaminants

The landfill leachate is contaminated with VOCs and heavy metals including iron. Systems to collect the leachate are in place; therefore, the threat of contaminants migrating from the site is minimal.

## Cleanup Approach

The site has been addressed in two long-term remedial phases focusing on controlling the source of contamination and investigation/cleanup of any potential off-site contamination.

### Response Action Status

Source Control: In 1983, the Potentially Responsible Party (PRP) implemented a remedy that called for the installation of a system to collect and treat the leachate; construction of a slurry wall along the landfill perimeter; covering the landfill with a clay cap; and the installation of a gas ventilation system. Construction of the selected remedy to control the source of the contamination was completed under EPA oversight by the PRP in 1985. The site continues to be monitored to ensure the effectiveness of the remedy.

The selected remedy for the South Brunswick Landfill site is on-site containment and long term monitoring. A Record of Decision (ROD) was issued by EPA in September 1987. The ROD states: "EPA believes the site has been effectively remediated, thereby mitigating the threat of contaminants into the environment which could present an imminent and substantial endangerment to human health and the environment."

Off-Site Contamination: In May 1993, under EPA oversight, BFI began investigating the extent of contamination that migrated off the site. The investigation revealed minimal contamination in one well. The leachate collection system pumping rate has been increased to address this contamination. Also, during routine monitoring, VOC contamination was determined to be present in a small area outside of the slurry wall. After further investigation and evaluation of options for addressing the contamination found outside of the slurry wall, EPA required the PRP to construct a groundwater interception trench to collect contamination from the area. Collected leachate from the trench is combined with the existing waste stream and sent to the POTW for treatment. Construction of the interception trench began in August 2005 and was completed in February 2006.

## Cleanup Progress

All work required to control the source of contamination has been completed. The site is monitored to determine the effectiveness of the selected remedy. Monitoring to determine the effectiveness of the above-described remedy and an investigation to assess any potential off-site contamination has been performed by BFI under EPA oversight. The initial round of post-remedial monitoring and the off-site investigation have been completed. The results from this investigation document the effectiveness of the remedy and indicate that there is no significant off-site migration of contaminants. The average volume of the leachate collection system ranges from approximately 4,000,000 to 8,000,000 gallons per year. In September 1995, EPA approved the Remedial Action Report, documenting that all remedial action objectives were achieved.

In August 1997, EPA approved the Operation and Maintenance (O&M) Plan. The O&M Plan defines the long term monitoring activities required for the Site. O&M activities include periodic inspections and maintenance of waste containment measures, periodic air, groundwater and surface water monitoring, leachate collection or any other activities necessary to ensure the continued protection of public health and the environment.

In November 1997, EPA published a Notice of Intent to Delete this Site from the National Priorities List (NPL) in the Federal Register as well as the local newspaper. The thirty day public comment period ended on December 8, 1997. No comments were received. On February 27, 1998 a Notice of Deletion was published by EPA in the Federal Register, which announced the deletion of the site from the NPL.

Yearly monitoring of the effectiveness of the remedy is documented by the PRP in the form of an annual report submitted to EPA. During the course of the monitoring presence of contamination outside the slurry wall in the southeastern portion of the site, near monitoring well R-10 was confirmed. Additional investigations and sampling were conducted in the area to determine the cause and extent of contamination. EPA then directed the PRP to install an infiltration trench in the area of concern which will prevent any further migration of the contaminants into unaffected areas of the site. Any intercepted leachate will be processed and treated along with the rest of the leachate collected from the landfill. Construction of the leachate interception trench was started in August 2005 and completed in February 2006.

## **Site Repositories**

EPA Region 2, 290 Broadway - 18 Floor, New York, NY 10007