JIS Landfill

New Jersey

EPA ID#: NJD097400998

EPA REGION 2

Congressional District(s): 12

Middlesex

South Brunswick

NPL LISTING HISTORY
Proposed Date: 12/1/1982
Final Date: 9/1/1983

Site Description

The Jones Industrial Services (JIS) Landfill site is located in South Brunswick Township, near the border of Monroe Township. The JIS Landfill site covers approximately 24 acres, which includes a 7.8 acre landfill and a waste transfer operation. Landfilling operations began in 1956 within a former borrow pit. Excavated material from the borrow pit provided fill needed for the construction of the New Jersey Turnpike. From 1960 through the early 1970's, the JIS Landfill accepted chemical, municipal and industrial wastes, including broken battery casings, paint sludges, solvents and pesticides. Approximately 50,000 cubic yards of waste were disposed of annually until landfilling operations ceased in 1980. JIS placed a cap over the northern half of the landfill in 1983. The southern half of the landfill was capped in 1985. Ground-water sampling revealed that private wells on nine properties downgradient of the site were contaminated.

Site Responsibility: This site is being addressed through Federal, State and private party actions.

Threat and Contaminants

Ground water is contaminated with metals and volatile organic compounds (VOCs), including vinyl chloride, methylene chloride, acetone, tetrachloroethene, trichloroethane, chlorobenzene and benzene. Aldrin, a pesticide, was also detected in the ground water. The concentrations of contaminants are above Federal and State drinking water standards. Contaminants have been detected in the groundwater from the site to Manalapan Brook, which is roughly a mile and a half downgradient of the site. Close to the landfill property, contamination is present from the water table to the base of the aquifer, a thickness of roughly 60 feet. Downgradient, contamination is largely limited to the bottom 15 feet of the unit. Ingestion of the contaminated ground water would present a risk, although all businesses and residents whose wells could potentially be impacted have been connected to the municipal water supply.

Cleanup Approach

Response Action Status

Immediate Actions: In February 1989, the New Jersey Department of Environmental Protection (NJDEP) requested that EPA conduct an assessment of the ground-water contamination at the site. Potable wells were sampled; wells at eight residences and one business were found to be contaminated with VOCs. EPA provided bottled water to the business and residents of the affected homes. The Monroe Utilities Authority installed water mains to supply potable water, and EPA provided water main hookups at five properties with contaminated wells. A water main extension providing municipal water to the four remaining homes was completed in mid-1992. The business and residents were connected to this alternate supply. In 2003, additional homes to the east of Manalapan Brook were connected to the municipal water as a precautionary measure.

Entire Site: The NJDEP began an investigation of the site in 1986 to determine the nature and extent of contamination. Activities included sampling of the air, soil, and ground water, as well as an evaluation of the landfill cap. Sediment and surface water samples were taken from Manalapan Brook, located approximately a mile and a half downgradient from the site. A feasibility study was conducted to identify alternatives for cleanup. The remedial investigation and feasibility study (RI/FS) were completed in summer 1993. NJDEP collected data on drinking water wells in the area to supplement the RI/FS, from fall 1993 through spring 1994.

Due to the presence of elevated contaminant concentrations in the downgradient portion of the plume, an additional ground water investigation was planned for 2005. This study is designed to remove uncertainty as to the downgradient extent of contamination, as well as investigate the possibility of additional source areas not related to the landfill. Based

on the results of this study, EPA and NJDEP will determine if additional remediation is needed in the distal portions of the plume.

Record of Decision: EPA selected a remedy for the site on August 15, 1995. The selected remedy includes: extraction and on-site treatment of contaminated ground water, installation of a modified NJDEP hazardous waste cap, and provision of alternative water supply to residents with contaminated drinking water wells. Potentially responsible parties (PRPs) for the site contamination signed an Administrative Consent Order with the NJDEP in July 1997 to implement the selected remedy.

Remedial Design: The PRPs completed the design for the landfill cap in June of 2000. The design for the ground water pump and treat system is also complete, but has not yet been implemented.

Remedial Action: Immediate risks were alleviated through the provision of alternative potable water supply to all impacted or potentially impacted residents. The landfill cap was installed in 2001. NJDEP certified its completion in January 2005, after various refinements were completed. Installation of the ground water pump and treat system is on hold pending the pilot testing of an innovative biosparging approach. EPA and NJDEP is currently evaluating the performance of the biosparging pilot to determine whether it offers a viable alternative to the remedy selected in the 1995 ROD for a pump and treat system. Completion of this evaluation is anticipated early 2009.

A Remedial Investigation of the Secondary Plume area has been submitted and is currently under review by EPA and NJDEP.

Site Facts: NJDEP has identified 36 PRPs, most of whom have funded the work described above.

Cleanup Progress

Pursuant to a removal action, EPA provided bottled water to eight residents and one business with contaminated wells until they were connected to municipal water supply.

A group of PRPs has undertaken the remedial design and remedial action under an administrative consent order with the State. The landfill cap remedial action was constructed in 2001 and was certified as complete in January 2005.

A pilot Groundwater Biosparge Treatment system has been operating at the Site since March 2005. The system has significantly reduced migration of volatile organic compounds in groundwater from the landfill Site.

Site Repositories

USEPA Records Center 290 Broadway, 18th floor New York, NY 10007 (212) 637-4308