

Sayreville Landfill

New Jersey

EPA ID#: NJD980505754

EPA REGION 2

Congressional District(s): 06

Middlesex

NPL LISTING HISTORY

Proposed Date: 12/30/1982

Final Date: 9/8/1983

Site Description

The Sayreville Landfill is an inactive municipal landfill covering approximately 30 acres in a moderately industrialized area of Middlesex County. The site was one of a number of disposal operations located along the tidal South River. The Borough of Sayreville owned and operated the site as a municipal landfill beginning in 1970. It was licensed to receive municipal waste and light industrial waste; however, hazardous waste was allegedly disposed of during operations, and after closure in 1977. Part of the site is in a wetland adjacent to the South River. Approximately 67,000 people live within a 3-mile radius of the site; the closest residence is located 1/2 mile away. Because of the tidal influence and the infusion of salt water, private wells in the area are not used. The Sayreville and Perth Amboy well fields are located within three miles of the site. There are other municipal wells in the vicinity which are tested regularly.

Site Responsibility: This site is being addressed through a combination of Federal, State, and potentially responsible parties' actions.

Threat and Contaminants

Phenol, heavy metals including iron and manganese, volatile organic compounds (VOCs), and polycyclic aromatic hydrocarbons (PAHs), were detected on-site in shallow monitoring wells. On-site surface water was found to be contaminated with cadmium and lead. On-site sediments also contained toluene and trichloroethylene (TCE). Benzene, arsenic, and chloroform were detected in on-site soils. Groundwater and leachate from the landfill apparently migrate into the South River. However, due to mixing and other factors, significant contamination from the landfill has not been detected in the South River's waters, which flow into the Raritan River. Based on the results of the first Five-Year Review completed in 2002, the landfill cap continued to protect the public and the environment from potential risks. A second Five-Year Review was completed in 2007, and included an evaluation of the monitoring data obtained over the last five years. As before, the landfill cap continues to be protective of human health and the environment.

Cleanup Approach

The site was addressed in three stages: initial actions and two long-term remedial phases.

Response Action Status

Initial Actions: The New Jersey Department of Environmental Protection (NJDEP), in coordination with the New Jersey Division of Criminal Justice, excavated 30 drums at the site in 1982.

Site Cleanup: EPA and NJDEP selected a remedy for cleanup of the site in 1990. The remedy includes the removal of remaining hazardous waste drums, capping the site, and installing a storm water control system and methane gas collection system. Design of the remedy was completed in February 1996. The contract for construction of the remedy was awarded in May 1997. Remediation work began in June 1997 and physical construction was substantially completed in July of 1998. The Remedial Action was officially completed in September 1999 with the approval of the Remedial Action Report.

Ground Water, Surface Water and Sediments: Additional investigations of ground water and off-site surface water and sediments have been completed. Based on these studies, EPA and NJDEP do not believe that further cleanup work will be necessary. The final Record of Decision was signed in September 1998 and includes no further action for surface water and sediments and a five year ground-water monitoring program to observe changes, if any, in ground-water contamination levels. The original five year semi-annual monitoring program was completed. The PRPs requested, and received, NJDEP approval to continue monitoring the site on an annual basis. The first annual report was submitted in

2006. The two latest annual monitoring reports were submitted, the latest being submitted in October 2008. As in the previous reports, despite occasional fluctuations observed in the concentrations of some contaminants, the overall tendency is a slow, continuing decrease in the overall groundwater contaminant concentrations. The PRPs are scheduled to submit a proposal to modify the O&M Operations Plan by the end of 2009. These modifications will include proposed changes to the gas probes and O&M gas monitoring plan as well as a revised groundwater sampling schedule.

The NJDEP and the Borough of Sayreville are still working on implementing the Deed Notice institutional controls. The PRPs submitted the Deed Notice to NJDEP for review last month. Once the Deed Notice is implemented, and the modified O&M Operations Plan approved, EPA and NJDEP will then be able to work to delete this site from the NPL.

Enforcement Status

The State of New Jersey signed an Administrative Order on Consent (AOC) with the potentially responsible parties (PRPs) in 1986 requiring that they fund the investigation to determine the nature and extent of contamination. In late 1991, a second AOC with the PRPs was signed which required them to perform the cleanup activities at the site.

Cleanup Progress

Initial actions were completed to restrict access to the site and to remove drums from the landfill. In accordance with the remedy selected in the 1990 ROD, the remedial action completed in 1999 included the removal of additional drums, capping of the site, and the installation of a storm water control and a methane collection system. A five year semi-annual ground-water monitoring program was initiated in 1999 for the purpose of obtaining ten sets of ground water monitoring data. This data would be used observe and evaluate any changes in contaminant levels in the ground water.

This monitoring program has now been completed, having obtained eleven rounds of semi-annual ground-water monitoring data. The latest ground-water monitoring data contained in the Sampling and Monitoring Report dated August 2006 indicate that contaminant levels in the deep Farrington sand aquifer, the aquifer of concern, continue to be below Federal and State MCL standards. Two additional Annual Sampling and Monitoring Reports were submitted, the latest in October 2008. As indicated previously, there is a continuing decrease in the overall groundwater contaminant concentrations. Once the Deed Notice is implemented, and the modified O&M Operations Plan approved, EPA and NJDEP will then be able to work to delete this site from the NPL.

Site Repositories

Sayreville Public Free Library, 1050 Washington Road, Parlin, NJ08859