

Global Sanitary Landfill

New Jersey

EPA ID#: NJD063160667

EPA REGION 2

Congressional District(s): 06

Middlesex

Old Bridge Township

NPL LISTING HISTORY

Proposed Date: 6/24/1988

Final Date: 3/31/1989

Site Description

The 60-acre Global Sanitary Landfill site was licensed by the New Jersey Department of Environmental Protection (NJDEP) to accept non-hazardous waste. The landfill borders Cheesequake Creek Tidal Marsh on three sides. In 1984, after heavy rains, two consecutive high tides occurred in the wetlands, and a portion of the southern side of the landfill collapsed and slid into the adjoining wetlands. As a result, the State closed the landfill. In 1984, the State detected volatile organic compounds (VOCs) seeping from the site into the wetlands. Allegations that drums containing paint, paint thinner, and various solvents were buried in the landfill from 1968 to 1977, were confirmed in a preliminary investigation in 1988. Groundwater immediately underneath the site has become contaminated by pollutants leaching from the landfill. The Sayreville Water Company has five water supply wells within a mile of the site. The water supplies for Sayreville, Lawrence Harbor, South Amboy, and Perth Amboy could potentially be threatened. Cheesequake State Park and Raritan Bay are located close to the site and are used for recreational activities. Commercial fishing is conducted in the area.

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

Threat and Contaminants

The water-table aquifer underneath the site is contaminated; however, the extent of off-site contamination wasn't fully characterized before the first Record of Decision (ROD) was signed in September 1991. Leachate seeping from the landfill into the wetlands contains VOCs, including methylene chloride, chloroform, trichloroethylene, and benzene. VOCs have seeped from the landfill into the Cheesequake Creek Tidal Marsh. The health threat posed to the area drinking water, and the ecological threat to the surrounding wetlands, was studied more fully after the 1991 ROD. While the findings indicate no immediate danger, potential threats will continue to exist until the 1991 remedy is put in place and the long-term monitoring called for under the OU-2 ROD signed in September 1997 confirms no further problems.

Cleanup Approach

This site is being addressed in two long-term remedial phases which will focus on the cleanup of the entire site.

Response Action Status

Capping of the Landfill: In 1989, the NJDEP began a study on the feasibility of capping the landfill. Based on that study, EPA and NJDEP selected a modified hazardous waste cap, slope stabilization and leachate collection system in a 1991 ROD as the remedy for the first operable unit (OU1) at the site.

Ground Water, Surface Water, and Surrounding Wetlands: In 1990, the State began a phased investigation into the extent of contamination in the Cheesequake Creek Tidal Marsh and related aquifer. This investigation resulted in a second ROD (OU2), which was signed on September 29, 1997, calling for ground-water monitoring, sediment removal and five years of ecological monitoring of the adjacent wetlands. The contaminated sediment resulted from a leachate seep which discharged at the base of the landfill carrying with it high concentrations of ammonia and other constituents. These contaminated sediments, amounting to less than 5,000 cubic yards, will be excavated and shipped off site or, alternatively, placed on top of the landfill before the cap is put in place. The leachate collection system called for under OU 1 will prevent that type of contamination from reoccurring there, or anywhere along the perimeter of the landfill.

Site Facts: The NJDEP negotiated a cash-out settlement with the owner/operators of the site in October 1992, and then entered into a Consent Decree with other potentially responsible parties (PRPs) in November 1993 to fund the capping remedy. Once the second ROD was signed, the State began negotiating an Amended Consent Decree (ACD) with the

PRP Group to include OU-2. The previous delay in reaching agreement on the ACD was largely a result of design changes that the PRP Group was proposing for the OU-1 landfill cap. However, since there was general agreement among EPA, the State and the PRP Group that the lighter, multilayer cap approach put forth in both the 1994 and 2001 pre-design reports would yield the best results, these technical changes were presented to the public through an Explanation of Significant Differences (ESD) prepared in August 2006. With that important step completed, final negotiations on an Amended Consent Decree (ACD) moved ahead and the ACD was finalized, signed and entered in Federal court on September 18, 2008.

In 2009 and 2010, the remedy design was completed and permit equivalencies obtained from the State. Construction of the landfill remedy began in the summer of 2010 with the construction of a landfill gas management trench and venting system. In accordance with the OU-2 remedy approximately 500 cubic yards of contaminated sediments were removed from the impacted portion of the adjacent wetlands, and placed beneath the landfill cap. The wetlands excavation area was then backfilled with soil to promote restoration of the area with wetlands shrubs and trees native to the Cheesecake Creek area. This work was completed in September 2011. The targeted completion date for the capping of the landfill, OU-1, is August 2012.

Cleanup Progress

During 1994 and 1995, the PRP Group held extensive discussions with Transcontinental Pipe Line Corporation (Transco) about relocating its gas transmission line which traversed a portion of the Site to be capped. These negotiations resulted in Transco relocating 1,000 feet of 42-inch gas main north and west of the landfill footprint. This was a very important action that had to be completed before any intrusive work could begin, and was needed both for the protection of the workers who would be on the site, as well as hundreds of residents in nearby apartment houses.

Subsequent to the signing of the November 15, 1993 Consent Decree for the implementation of the OU-1 remedy, the PRP Group began a Pre-Design Investigation (PDI). The PDI included the installation of landfill settlement monuments, as well as in-situ and laboratory testing of the landfill's surface and subsurface soils. The PDI Report concluded that the landfill was settling at a rate in excess of 1-foot per year and recommended a phased approach to the placement of the cap. Following that approach, geotechnical monitoring points were installed in the fall of 1996 to monitor the behavior of the landfill and the underlying material due to additional loadings of grading fill. Over a three-month period, June to August 1997, 25,000 cubic yards of fill were placed on the 10-acre plateau on the crown of the landfill. This material, which was compacted and vegetated, shows that the settling continues to the present day, though the rate of settlement is decreasing. During the past five years the PRPs have investigated and presented to the Agencies other means of capping but none have the proven dependability of a multilayer cap. The PRPs have supplied the conceptual design for a cap that meets the agencies basic requirements of the OU-1 ROD and this was followed by a Remedial Action Work Plan. An Explanation of Significant Differences (ESD) was prepared which documents the advantages of installing a lighter, multilayer cap than that proposed under the OU-1 ROD. The ESD was signed by the EPA on August 15, 2006 and was placed in the public repositories for review. The State and the PRPs continued to work on amending the 1993 Consent Decree to include the OU-2 ROD and incorporate changes in the OU-1 ROD cap required by the ESD. The ACD was finalized, signed and entered in Federal court on September 18, 2008.

The PRPs submitted a Draft of the 90% Design in July 2006 which subsequently led to a Final 100% Design in October 2007. The PRPs have also submitted detailed applications and reports to obtain the necessary permits to undertake the construction. Due to many small changes the PRPs prepared an Addendum to the 100% Design, dated March 2009. The State finally gave its approval to these two design documents in September 2009. The PRPs are also committed to acquiring replacement wetlands to compensate for those lost during the original side-slope failure plus additional acreage expected to be impacted in the course of construction. Global is a State/PRP lead site.

Site Repositories

In addition to the State and EPA repositories {US EPA, Records Center, 290 Broadway, 18th Floor, New York, NY 10007}. The local one is the Town Clerk's Office in Old Bridge, NJ