

Goose Farm

New Jersey

EPA ID#: NJD980530109

EPA REGION 2 Congressional District(s): 04

Ocean
Plumsted Township

NPL LISTING HISTORY
Proposed Date: 10/1/1981
Final Date: 9/1/1983

Site Description

The 6.6 acre Goose Farm site was used as a hazardous waste disposal area from the mid-1940s to the mid-1970s by a manufacturer of polysulfide rubber and solid rocket fuel propellant. The majority of wastes were dumped into a pit dug through fine sand. Waste chemicals from laboratories, drums, and bulk liquids were dumped into the pit. In 1980, the New Jersey Department of Environmental Protection (NJDEP) found that a contaminant plume that originated in the waste pit area had migrated north in the groundwater toward a nearby stream. Also, soil was found to contain volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and polychlorinated biphenyls (PCBs). Approximately 1,000 residences are located within a 1-mile radius of the Goose Farm site. An unnamed stream on the site flows into Lahaway Creek, a tributary of the Delaware River, which is used for recreational activities. The site is adjacent to a forested area.

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

Threat and Contaminants

Groundwater is currently contaminated with VOCs and SVOCs. Heavily contaminated soils within the original waste pit have been excavated. Leachate from the pit contained various VOCs; however, leachate and drums containing contaminants were removed and there is no longer any leachate from the waste pit. Although surface water is not used as a source of drinking water, it is used for irrigation. Contaminants were detected in the surface water at low levels. The installation of fencing around the site has prevented public access to the contamination materials. The installation of the treatment plant and extraction system are preventing the contaminated groundwater from migrating the off the site.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: In September 1980, the NJDEP installed and operated a groundwater recovery, treatment and spray irrigation system. This groundwater treatment system operated for seven months, until March 1981, and treated approximately 7.8 million gallons of contaminated water. Approximately 5,000 containers (drums, lab packs and pails) holding 9,000 gallons of bulked liquid waste were removed from the waste pit and disposed of at an approved off-site facility. In addition, NJDEP's cleanup activities included the removal of contaminated soil. Approximately 3,500 tons of grossly contaminated soil and an additional 12 drums of PCB waste were disposed of off-site.

Entire Site: In 1985, the EPA selected a remedy to clean up the site that includes recovery and treatment of contaminated groundwater and flushing the soil with the treated effluent, in conjunction with evaluating the need to cap the site, and testing the soil for contamination. After entering into a judicial consent decree in 1988 with EPA and NJDEP to implement the selected remedy, a responsible party, Morton International Inc. (a Rohm & Haas Company) constructed a slurry wall and a groundwater remediation system. Start-up of the groundwater remediation system occurred in June 1993 and the operation of the system is ongoing.

Site Facts: In 1988, a responsible party, Morton International, Inc., agreed to implement the selected remedy for the Site under the terms of a Consent Decree. EPA has and continues to perform oversight for all cleanup activities.

Cleanup Progress

Removing the liquid and solid hazardous wastes and installing the preliminary groundwater treatment system greatly reduced the potential for exposure to contaminants at the Goose Farm site, while long-term groundwater cleanup activities are taking place. Remedial construction activities were completed in June 1993, and the groundwater treatment system started operation subsequently. Groundwater recovery and treatment operations were suspended, however, during December 1993 due to iron and biological fouling of the air stripping packing. To address the iron fouling problem of the treatment plant, design modifications were proposed that included a pre-treatment process designed to handle and remove the high iron and solids loading in the influent to the plant. The pre-treatment system was constructed in August 1994 and the plant resumed pumping and treatment operations in October 1994. On the average, 1.0 million gallons of contaminated groundwater are pumped and treated every month at the site, with an average flow rate of 36-40 gallons per minute (gpm). To date, over 400 million gallons of contaminated water have been treated at the site.

All data collected from the treatment system to date show compliance with cleanup objectives and current efforts at the site are concentrated on optimizing the recovery/treatment/infiltration process. In August 2003, Rohm and Haas collected a total of ninety-one (91) groundwater and soil samples from thirty locations around the site. In addition, the company installed six new monitoring wells in the eastern and northern sections of the site and within the former drum pit area. Groundwater samples were collected from the newly installed wells. The levels of contamination found in the soils are generally low levels. However, the groundwater remains contaminated with SVOCs and VOCs. The groundwater treatment system is capturing and treating the contaminated groundwater to meet applicable discharge standards. In February 2008, in an effort to optimize the infiltration system, EPA required the PRP to discharge all treated water to trenches located outside of the slurry wall. In September 2008, a new monitoring well was installed between the slurry wall and the nearby stream to monitor the progress the optimization program. Site-related contaminants were not detected in this monitoring well.

Five-Year Review

Pursuant to Section 121(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, EPA completed a five-year review September 1998 to ensure that remedial actions selected at the site remain protective of the public health and the environment. The five year review found that the selected remedy, as implemented at the site to date, continues to be protective of human health and the environment. In September 2003, EPA completed a second five-year review for the site. The second five-year review concluded that the remedy provides for short-term protection of human health and the environment because the remedy has prevented the migration of the contaminated groundwater plume to potable water supplies and has prevented the movement of contaminants to areas of the site unaffected by the groundwater contamination. In September 2008, EPA completed a third five-year review for the site. The third five-year review concluded that the remedy currently protects human health and the environment because exposure to contaminated materials is restricted by the fence, the slurry wall, and the groundwater extraction and treatment system which serve to contain the contamination within the site.

Site Repositories

Superfund Records Center, 209 Broadway, 18th floor, New York, NY 10007, the Ocean County Library in Toms River, the Plumsted Township Municipal Building, and the New Egypt Library.