

EWAN PROPERTY

NEW JERSEY

EPA ID# NJD980761365

EPA REGION 2

CONGRESSIONAL DIST. 03

Burlington County
Wallingford Way

Shamong Township

Other Names:

Shamong Township Drum Dump

NPL LISTING HISTORY

Proposed Date: 09/01/83

Final Date: 09/01/84

Site Description

The Ewan Property Site consists of 43 heavily wooded acres in Shamong Township. The Site is located within the Central Pine Barrens portion of the New Jersey Pinelands. The property is surrounded by forest, agricultural land, and residential areas. Groundwater within one mile of the site is used for domestic water supply, and for agricultural irrigation. Several residential housing developments containing approximately several hundred single family homes are located within one mile of the site, all of which rely on private wells. An intermittent stream and extensive wetlands are located adjacent to the Site.

Site investigations revealed that during the early to mid-1970s, between 500 to 8,000 drums containing hazardous industrial wastes were emptied or buried on-Site in trenches and pits which were subsequently backfilled with soil. Soil and groundwater sampling indicated the presence of volatile organic compounds (VOCs), semi-volatiles, and metals in Site soils and groundwater. An extensive network of both on and off-site groundwater monitoring wells indicates that groundwater contamination has not migrated beyond the Site boundaries. Site activities are ongoing.

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

Threats and Contaminants

Monitoring wells indicate that the Site includes a contaminated groundwater plume of VOCs, and SVOCs, including acetone, toluene, xylene, and heavy metals including arsenic, chromium and aluminum. No Site contaminants have been detected in off-Site residential wells. Two aquifers below the Site are hydraulically linked. Local groundwater flows in a southerly direction. Site soils are contaminated with the above listed VOCs and heavy metals. EPA has determined that drinking contaminated groundwater could pose a public health threat. Site groundwater also poses a threat to the New Jersey Pinelands which is a sensitive ecosystem and a major groundwater recharge area.

Cleanup Approach

The site is being addressed in two Operable Units (OUs). OU1 addressed the removal of buried drums and moderately to heavily contaminated soils. OU2 addresses the cleanup of Site groundwater and residually contaminated soils.

Response Action Status

Immediate Actions: At EPA's direction, the potentially responsible parties (PRP's) installed a security fence in 1988, to keep trespassers and children from becoming exposed to Site contaminants.

Buried Drums and Soil: In 1988, the EPA selected the cleanup methods to be used to remove contaminated soils and buried drums. Construction of an access route to the Site was completed in November 1992. During the design phase for drum removal, EPA learned the bulk of soil contamination was closely associated with the drum disposal areas. In July 1994 EPA modified the first cleanup phase to include excavation of moderately to highly contaminated soils. This action also modified the second remedial phase to deal with groundwater cleanup and residually contaminated soils. Phase one, the design for drum removal activities, was completed in July 1994, followed by on-Site mobilization in the Spring of 1995. Cleanup activities then proceeded in August of 1994, which included: excavation of drums and associated soil; evaluation of wastes to determine proper treatment/disposal methods for collection and grouping of waste materials and soil with off-Site incineration; off-Site treatment and/or disposal of all waste material and soil determined to be inappropriate for incineration at permitted facilities; and monitoring air and groundwater during the cleanup activities. Drums and soils excavation work was completed in July 1995.

Ground water: In 1989, the cleanup plan covering contaminated groundwater and lesser contaminated soil was selected by EPA. The selected groundwater remedy is to extract, treat, and discharge the treated effluent to the upper sand aquifer at the site. Design of the groundwater cleanup remedy was initiated in August of 1995, immediately following the removal of buried drums and associated soils. The design of the groundwater remedy was completed in late 1998. This was followed by the construction of the remedial extraction, treatment and recharge system in February 1999. Beginning in March 1999, the entire system underwent an extensive six month period of rigorous tests. First, clean water was run through the system, followed by progressively contaminated water until it was demonstrated that the system was consistently able to meet its required cleanup standards. In September 1999, the remedial system entered the long term operation and maintenance phase.

In early 2003, the PRPs began evaluating the extraction and treatment system for the purpose of more rapidly achieving the final cleanup goals. To this end, a pilot program was implemented for an extended period of several months in 2004 to test a dual phase extraction/soils vapor vacuum extraction (DPE/SVE) system, involving both liquid and vapor extraction technology, on several selected soils hot spot areas known to contain high levels of residuals soils contamination. The results of this study have been analyzed, and a decision was made to implement the technology on a wider scale to clean-up the remaining hot-spots. The DPE/SVE system was operational in Fall 2004, and continues to operate, removing additional VOC and SVOC contamination from the selected soils hot spots.

In the spring of 2004, the PRPs excavated one soils hot spot area of approximately 1,000 cubic yards for off-site disposal.

~~It is currently anticipated that the extraction and treatment system will operate for approximately 5 to 6 more years, or until contaminated groundwater is restored to health based levels.~~

Site Facts: The EPA has identified approximately 30 PRPs. Nineteen parties were ordered by EPA to remove contaminated materials and buried drums. The parties completed the removal of the buried drums and contaminated soil in mid-1995 under the terms a Unilateral Administrative Order. A Unilateral Administrative Order for Operable Unit Two was issued in May 1995, for the design, construction and cleanup phase of work. The PRPs are currently operating the groundwater treatment plant, and conducting routine operation and maintenance (O&M) activities, which includes environmental and groundwater monitoring sampling. The PRPs performed all the above outlined activities under EPA and NJDEP oversight.

Cleanup Progress **(Threats Mitigated by Cleanup Progress)**

Installation of a security fence has reduced the potential for contact with contaminants while the chosen remedies are being implemented. Approximately 3,800 buried drums and their contents, were excavated and removed for off-Site disposal. In addition, approximately 22,000 cubic yards (or 14,000 tons) of associated moderately to highly contaminated soils were removed. A small on-Site wetland area has been restored. The design of the groundwater extraction, recharge and treatment system was completed in late 1997, construction began in early 1998, and was completed in late 1998, followed by six months of testing. Full scale operation of the system commenced in March 1999. In September 1999, the system entered the long term operation and maintenance phase. It is anticipated that the remedial system will continue to operate for approximately 5 to 6 more years, or until contaminated groundwater is restored to health based levels. In addition, in the spring of 2004, the PRPs excavated one soils hot spot area of approximately 1,000 cubic yards for off-site disposal.

In Fall 2004, PRPs began implementing a dual phase extraction/soils vacuum extraction (DPE/SVE) system, involving both liquid and vapor extraction technology, on several selected soils hot spot areas known to contain high levels of residuals soils contamination. The DPE/SVE system continues to operate, removing additional VOC and SVOC contamination from the selected soils hot spots.

In September 2004, the EPA completed the first five-year review of the remedies for the Site, addressing both surficial and subsurface groundwater clean-up at the site. The purpose of the five-year review was to ensure that the remedies implemented for the site continue to be protective of public health and the environment and are functioning as designed. The five-year review determined, currently there is no exposure to human or environmental receptors from Site contaminants. The remedies implemented at this Site currently protect human health and the environment.

It is currently anticipated that the extraction and treatment system will operate for approximately 5 to 6 more years, or until contaminated groundwater is restored to health based levels.

Additional Site Information and Repository:

If you have any questions or concerns regarding on-going or future activities at the Ewan Property Site, please contact:

Stephen Cipot, Remedial Project Manager
USEPA Region II
290 Broadway
New York, NY 10007-1866

(212) 637-4411 (office)

(212) 637-4429 (fax)

Public review and information repositories are located at the EPA Region II office above, and at the following location near the site:

Municipal Clerks Office

Lynn Heinhold

Shamong Township Municipal Building

105 Willow Grove Road

Shamong, New Jersey 08088

Additional Links:

Record of Decision Abstract