

# Ewan Property

## New Jersey

EPA ID#: NJD980761365

### EPA REGION 2 Congressional District(s): 03

Burlington  
Wallingford Way Shamong Township

#### NPL LISTING HISTORY

Proposed Date: 9/1/1983

Final Date: 9/1/1984

## 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, wetlands, 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 for potable water. An intermittent stream and extensive wetlands are located immediately 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.

The site is being addressed in 2 operable units. OU1 addresses the heavily and moderately contaminated soils, and OU2 addresses contaminated groundwater and moderately contaminated soils. The OU1 portion of the site was completed in 1995. The OU2 groundwater cleanup remedy is ongoing.

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

## Threat and Contaminants

Site soils and groundwater were originally contaminated with a variety of volatile organic compounds (VOCs), including acetone, toluene, xylene and trichloroethylene; semi-volatile compounds (SVOCs), and some heavy metals, including arsenic, chromium and aluminum. EPA has determined that drinking contaminated Site 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. However, at present, only residual soils and groundwater contamination remain. No site contaminants have been detected in off-site groundwater, residential or public water supply wells. A fence was installed in 1988, to keep trespassers and children from becoming exposed to Site contaminants. There are two aquifers below the site that are linked, a shallow Cohansey aquifer and the deeper Kirkwood aquifer. Local groundwater flows in a southerly direction in both aquifers.

## Cleanup Approach

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

#### Response Action Status

Immediate Actions: at EPA's direction, the Potentially Responsible Parties (PRPs) installed a security fence in 1988, to keep trespassers and children from becoming exposed to Site contaminants.

OU1 Buried Drums and Soil: In 1988, EPA selected the cleanup methods to be used to remove contaminated soils and buried drums. As a result of putting in the access road, a small wetland area had to be destroyed and was created

elsewhere on the property. During the design phase for drum removal, EPA learned that the bulk of soil contamination was closely associated and intermixed with the original drum disposal areas. In July 1994 EPA modified the first cleanup phase to include excavation of drums as well as moderately to highly contaminated soils. EPA also modified the second remedial phase (OU2) to deal with groundwater cleanup and residually contaminated soils. For OU1, cleanup activities included: excavation of drums and associated soil; evaluation of wastes to determine proper treatment/disposal methods, and off-Site treatment and/or disposal of all waste material and soil determined to be inappropriate for incineration at permitted facilities. The drums and soils excavation work was completed in July 1995.

OU2 Groundwater: 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. As part of the OU2 remedy, residual soils contamination would be remediated by flushing with the treated effluent. The design of the OU2 remedy was completed in late 1998, followed by the construction of the remedial extraction, treatment and recharge system. In September 1999, treatment system operations began, and through approximately June 2006, the system continued to pump, treat and reinjected approximately 200,000 gallons per day of contaminated groundwater.

In early 2003, the PRPs began evaluating the extraction and treatment system for the purpose of maximizing efficiency and achieving the final cleanup goals more rapidly. To this end, several minor modifications of the extraction and recharge basin flows were implemented. In the spring of 2004, an identified soils hot spot area was investigated and excavated for off-site disposal, consisting of approximately 1,000 cubic yards. In the fall of 2004, the PRPs implemented a pilot test for hot spot treatment of soils and groundwater using a technology called dual phase extraction/soil vapor extraction (DPE/SVE). During the DPE/SVE testing period, the full scale extraction, treatment and recharge system was turned off to monitor the results. In June 2006, the pilot study was expanded to remove elevated VOC and SVOC contamination from additional selected soils hot spots. The results of the past several years indicates that the DPE/SVE technology is effective in treating soil hot spots. The full scale remedial groundwater treatment system remains operational and can be turned on with 48 hours notice.

Site Facts: 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 DPE/SVE treatment system, and conducting routine operation and maintenance (O&M) activities, which include environmental and groundwater sampling, and a five year off-site residential well sampling program. The PRPs perform these Site activities under EPA and NJDEP oversight.

## 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 construction of the groundwater extraction, recharge and treatment system was completed in late 1998. Full scale operation of the system commenced in March 1999. In September 1999, the system entered the long term operation and maintenance (O&M) phase. 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 2006, sitewide groundwater sampling program indicated that no site related contaminants were impacting any of the off-site wells sampled, and potable water supplies are not currently threatened by site contamination.

In the Fall of 2004, PRPs began implementing a pilot program to test a DPE/SVE system, involving both liquid and vapor extraction technology, on several selected hot spot areas known to contain higher levels of residual soil contamination. At the same time, during the test, the full scale treatment system was turned off to evaluate the efficiency of the DPE/SVE system. The DPE/SVE system continues to operate successfully, removing VOC and SVOC contamination from the targeted soils hot spots. The full scale extraction, treatment, and recharge system treats contamination extracted by the DPE/SVE system. The full scale remedial system remains operational and can be turned completely on with 48 hours notice.

In late 2009, the PRPs submitted a request to pilot test a phased operation of the current DPE/SVE system, where instead of continual DPE/SVE operation, a phased approach is used. Pilot testing would involve a period of operation followed by a period where the system is turned off, with groundwater monitoring, followed again by a period where the system is turned on. The purpose of phased or "pulse" pumping is to determine if during "off" periods residual levels of contaminants in saturated soils migrate into the groundwater. EPA and the NJDEP are evaluating the PRPs' request.

Since 1997, the groundwater treatment systems have treated approximately 468,100,000 gallons of contaminated water to standards, and removed 494 pounds of VOCs and SVOCs from the groundwater.

The contaminant exception area (CEA) established at the site by the state of New Jersey was up for renewal in 2010, the PRPs have submitted a renewal application that is being reviewed by the NJDEP.

## **Site Repositories**

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 2 290 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 2 office above, and at the following location near the site: USEPA Region 2 290 Broadway Records Center, 18th Floor New York, NY 10007-1866

Municipal Clerks Office Shamong Township Municipal Building 105 Willow Grove Road Shamong, New Jersey 08088

Additional Links: [Record of Decision Abstract](#)