

D'Imperio Property

New Jersey

EPA ID#: NJD980529416

EPA REGION 2 Congressional District(s): 02

Atlantic
Hamilton Township

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

Site Description

The D'Imperio Property site is a 15-acre parcel of undeveloped real estate, of which 1 1/2 acres was used as an unauthorized dump in the mid-1970's. The disposal area consisted mainly of partially buried and ruptured metal drums. Many of the drums contained metals and various volatile organic compounds (VOCs), including solvents. The ground water is contaminated and the contaminant plume has been detected in two aquifers. The site is located in a semi-rural area that is now becoming commercialized. Approximately 6,000 people within 3 miles of the site use ground water for drinking. Twenty private wells are located within 1 mile, with the closest well 300 feet upgradient of the site. The site is within the New Jersey Pineland Reserve. The Babcock Swamp wetlands, which are drained by Babcock Creek, are approximately 2000 feet to the southwest.

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

Threat and Contaminants

Surface soils were contaminated with volatile organic compounds (VOCs), metals, and phenol. The sub-surface soils and ground water are contaminated with VOCs. Human exposure to site-related contaminants may occur through ingestion of contaminated groundwater or direct contact with contaminated soils.

Cleanup Approach

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

Response Action Status

Immediate Action: In 1982, U.S. Environmental Protection Agency (EPA) constructed a fence to prevent people from entering the site and coming into contact with hazardous substances.

Entire Site: On March 27, 1985, a Record of Decision (ROD) selecting the remedy for the site was issued by EPA. The components of the remedy included: (1) excavating and transporting of approximately 3,900 cubic yards of contaminated waste, soil, and drums to an off-site EPA-approved facility; (2) constructing a cover or cap over the former disposal area; and (3) pumping and treating the ground water to remove the contaminants and then discharging the clean water back into the aquifers.

On July 3, 2003, EPA issued a ROD Amendment which changed the final component of the original selected remedy from a cap over the former disposal area to a soil vapor extraction system for the remaining contaminated subsurface soils.

Cleanup Progress

In 1987, EPA removed 82 buried drums and 3,900 cubic yards (6240 tons) of contaminated soil, and disposed of it in an approved off-site facility.

In September 1992, EPA completed the technical specifications for the groundwater pump and treatment system.

In August 1993, EPA issued a Unilateral Administrative Order (UAO) to 14 potentially responsible parties (PRPs) requiring them to perform a groundwater investigation to define the extent of the contaminated groundwater plume and to construct and operate a ground-water pump and treatment system. The PRPs completed the ground-water investigation in November 1994 and in August 1996 they completed construction of the groundwater pump and treatment system. After resolving the technical problems prevented the system from operating at the design capacity of 155 gallons/minute, the PRPs began operating the groundwater treatment system at full capacity in August 1997. The system was expanded in April 1999 to include a groundwater extraction and re-injection system for the contaminated Lower Cohansey Sand aquifer.

The 1993 UAO contained a provision in the statement of work which required the PRPs to perform a soil study of the former disposal area. This provision allowed for the investigation of remaining source material within the context of the operating groundwater treatment system and the removal action. The PRPs completed the soil sampling study in October 1998. Based on the results of a report submitted by the PRPs in May 1999, EPA concluded that contaminated subsurface soils remained at the former disposal area.

In January 2000, EPA issued a modification to the 1993 UAO. This modification required the PRPs to perform additional sampling at the former disposal area and prepare an evaluation report. The PRPs performed the sampling activities in June 2000 and submitted a draft soils evaluation report in September 2000. This report revealed the findings of the sampling activities and provided an assessment of other remedial alternatives to the ROD-selected cap remedy. The final soils evaluation report was approved by EPA in October 2002. These findings were used as a basis for amending the original remedy selected in the ROD to address the residual subsurface soil contamination.

A ROD Amendment was signed by EPA on July 3, 2003 that changed the remedy from a cap over the former disposal area to soil vapor extraction (SVE) of the remaining contaminated subsurface soils.

In November 2003, EPA issued a UAO to the PRPs for the remedial design and remedial action (RD/RA) of the SVE system. Following the approval of the final design report and construction work plans, the PRPs began installing the SVE system in June 2004. The construction of the system was completed and operations began in August 2004.

With the SVE system operational, the site remedy is construction complete. On September 22, 2004, EPA issued a Preliminary Close-Out Report. The PRPs submitted the September 2004 Interim Remedial Action Report which was approved by EPA in December 2004. The PRPs are currently performing monthly and quarterly operations and maintenance, and monitoring of the system.

As part of our on-going effort to ensure the effectiveness of the groundwater treatment system, EPA required the PRPs to initiate a supplemental groundwater investigation (SGI) for the purpose of evaluating the current conditions and quality of the groundwater, and update the groundwater flow model. In March 2002, an SGI work plan was submitted by the PRPs which included the installation of five new monitoring wells and a comprehensive groundwater sample event. EPA approved the SGI work plan in June 2003. Later that month, the PRPs submitted a work plan addendum for aquifer testing, which was approved by EPA in November 2003.

The PRPs conducted the SGI from August to December 2003. The results of this investigation indicated that conditions in the contaminated portion of the Lower Cohansey aquifer had changed making it necessary to perform additional remedial activities. In order to confirm the findings of the comprehensive groundwater sample event, the PRPs re-sampled the monitoring wells in the Lower Cohansey in February 2004. A final SGI report was submitted in June 2004.

As a result of the findings in the SGI report, the PRPs submitted the Lower Cohansey Groundwater Extraction and Re-injection System Enhancement (LCGERSE) scope of work in June 2004. As part of this scope of work, the PRPs installed five new lower cohansey monitoring wells from June to July 2004 and collected samples for analysis from ten lower cohansey monitoring wells in August 2004. This new information allowed the PRPs to submit a Lower Cohansey Groundwater Delineation Report (LCGDR) in September 2004.

In October 2004, at the request of EPA, the PRPs installed and sampled one new lower cohansey monitoring well to delineate the south-west portion of the Lower Cohansey groundwater plume. This new information was incorporated into a revised LCGDR, and submitted to EPA along with the Engineering Design/Technical Specifications Package for the LCGERSE in January 2005. An additional monitoring well to complete delineation of the lower cohansey groundwater plume was installed and sampled by the PRPs in May 2005. An addendum to the LCGDR along with the Site Safety, Health and Emergency Response Plan, Construction Quality Assurance Project Plan, Engineering/Construction Drawings and Technical Specifications, and LCGERSE scope of work were revised and submitted in May 2005. All documents related to the LCGERSE were approved by EPA in July 2005.

The LCGERSE construction activities began in July 2005, and were completed in December 2005. This new system was integrated into the on-going groundwater treatment system in January/February 2006. A certification report for the LCGERSE construction activities was submitted by the PRPs in April 2006. EPA approved of the certification report in January 2008.

Following the start-up of the LCGERSE, the PRPs submitted a Revised Long-Term Groundwater Monitoring Plan, and Operation and Maintenance Addendum to EPA in March 2007. After several revisions to the Long-Term Groundwater Monitoring Plan, EPA approved the PRPs May 2007 Long-Term Groundwater Monitoring Plan (Revision 2a) and March 2007 Operation and Maintenance Addendum in October 2007.

For the purpose of revising the Classification Exemption Area for the site (an NJDEP requirement), two new Bridgeton Sand Aquifer monitoring wells were installed in February 2007, and sampled in March 2007. The results of this sampling indicated that the performance criteria were being achieved at these wells.

The PRPs continue to perform groundwater quarterly groundwater monitoring and system operation and maintenance activities.

Environmental Progress

By securing the site with a fence, removing the contaminated soil and drums, and installing the groundwater treatment and soil vapor extraction systems, EPA believes the potential for exposure to contaminated materials and groundwater at the D'Imperio Property site has been significantly reduced.

Site Repositories

Hamilton Township Clerk's Office, Room 201, 6101 Thirteenth Street, May's Landing, NJ 08330