

Endicott Village Well Field

New York

EPA ID#: NYD980780746

EPA REGION 2 Congressional District(s): 26

Broome

Endicott

NPL LISTING HISTORY

Proposed Date: 10/1/1984

Final Date: 6/1/1986

Site Description

Most of the Site is on land owned by the Village of Endicott (the En-Joie Golf Course, the Sewage Treatment Plant, the Endicott Landfill and the Tri-Cities Airport). The Village operates four wells that serve 45,000 people and the Ranney Well supplies about half of the total drinking water of the system. EPA detected vinyl chloride and trace amounts of other volatile organic compounds (VOCs) in the discharge from the Ranney Well. The Endicott Landfill is approximately 70 acres in size and was found to be the source of the contamination to the Ranney Well. The Endicott Landfill accepted municipal refuse and industrial waste from approximately the late 1950's until 1977.

Site Responsibility: This site was addressed through Federal and potentially responsible parties' actions.

Threat and Contaminants

The groundwater is contaminated with various VOCs. The primary VOCs identified are chloroethane, 1,2-dichloroethene, and vinyl chloride. The major health threat from the Endicott Well Field site was from drinking contaminated water from the Ranney Well. However, with the implementation of the various remedial actions the threat has been eliminated.

Cleanup Approach

This site is being addressed in four stages: initial actions and three long-term remedial phases focusing on cleanup of the public water supply, cleanup of the entire site, and containment of the groundwater plume.

Response Action Status

Initial Action: After contamination was detected, the Village of Endicott closed four of the lateral supply lines to the Ranney Well and installed diffused air aeration equipment to reduce vinyl chloride levels. Actions taken by the Village also included installation of a purge well and three monitoring wells to intercept and monitor groundwater contamination before it reached the Ranney Well.

Public Water Supply: The EPA selected the following methods for cleanup of the public water supply: installing and operating an air stripper to remove volatile organic compounds from the Ranney Well; treating contaminated groundwater, with discharge of the cleaned water to the Village of Endicott Municipal Water Distribution System; and groundwater monitoring. The remediation work was performed by the responsible parties. Construction of the air-stripping tower was completed by the Village of Endicott in the Fall of 1991. In February 1997, EPA determined that water taken from the Ranney Well was, without treatment, meeting the cleanup standards and gave permission to the Village to discontinue operation of the air stripper. However, as a precautionary measure, the air stripper is still being operated by the Village.

Entire Site: The parties potentially responsible for the site contamination conducted a site investigation and identified cleanup remedies to restore the aquifer and control the source of contamination. Studies were undertaken in two phases, resulting in an interim remedy and a final remedy which are described below.

Groundwater Contamination: In 1991, an interim remedy was selected, which includes: remediation of the contaminated ground water by requiring extraction through an existing Purge Well, the installation of a Supplemental Purge Well and treatment through the Village of Endicott's Waste Water Treatment Plant. This remedial action, implemented pursuant to a Consent Decree, was completed in June 1995. To date approximately 55 million gallons of contaminated groundwater have been treated.

Source of Contamination: The EPA selected the final remedy in 1992, which addresses the source of the contaminated groundwater and includes capping the landfill, installing a gas venting system, controlling and treating the leachate seep, monitoring the air and groundwater quality, installing a fence around the landfill, and implementing institutional controls to restrict future use of the landfill. In October 1996, the remedial action was completed and approximately 8,260,000 tons of waste were contained. On September 26, 1997 EPA determined that all construction activities were completed at this site.

Site Facts: In 1988, a Consent Order was signed with three of the parties potentially responsible for site contamination to perform a study to determine the source and extent of the aquifer contamination. A Consent Decree also was signed to perform the cleanup of the well field. In 1991 EPA and the responsible parties negotiated a second Consent Decree for installation of the Supplemental Purge Well. A Consent Decree to conduct the remedial design/remedial action was also signed by the responsible parties in September 1993.

Cleanup Progress

Initial actions taken to treat the groundwater reduced the risk of exposure to contaminants through the water supply. The construction of the air stripper was completed in the Fall of 1991. The air stripper has treated more than 5.7 billion gallons of contaminated groundwater. EPA approved the final design for the Supplemental Purge Well on March 6, 1995. The treatment system was installed and is now in operation. On December 11, 1995, EPA signed an Explanation of Significant Differences to discontinue operation of the purge well that was installed in 1984. This decision was based upon data that demonstrated that the Supplemental Purge Well effectively captured groundwater beneath and adjacent to the Endicott Landfill. In October 1996, the remedial action for the landfill was completed and approximately 8,260,000 tons of waste were contained. The Site achieved construction completion status when the Preliminary Close-Out Report was signed on September 26, 1997.

EPA completed the second Five-Year Review for the Site in September 2006. The Five-Year Review was based upon observations from Site visits and a review of Site-related data and documents and determined that the response actions implemented at the Endicott Wellfield Site are in accordance with the remedy selected by EPA. The Review concluded that the remedies as implemented for the Site continues to protect human health and the environment. There are no exposure pathways that could result in unacceptable risks, and none are expected as long as the Site ownership and use do not change and the engineered and institutional controls currently in place continue to be properly operated, monitored, and maintained. The Five-Year Review also found that the landfill cap is well-maintained, mowed, and operating as designed. However, several areas of the paved landfill cap, however, have settled, allowing pooling to occur. The Village will evaluate appropriate measures to address the area of subsidence that has led to the pooling of water.

Site Repositories

Endicott Village Clerk's Office, Municipal Building, Endicott, NY 13760