

Puchack Well Field

New Jersey

EPA ID#: NJD981084767

EPA REGION 2 Congressional District(s): 01 Camden

NPL LISTING HISTORY
Proposed Date: 9/25/1997
Final Date: 3/6/1998

Site Description

The Puchack Well Field Superfund Site consists of six public supply wells owned and operated by the City of Camden, located in Pennsauken Township, Camden County, New Jersey. A seventh public water supply well was reportedly destroyed during construction of the Betsy Ross Bridge that connects New Jersey and Pennsylvania, over the Delaware River. Contamination was first detected at Puchack in the early 1970s with the presence of trichloroethane (TCE), 1,2-dichloroethane (1,2-DCA), tetrachlorethane (PCE), and chromium compounds in well No. 6. Further sampling indicated the presence of total and hexavalent chromium at concentrations above the health based level, which resulted in the well being removed from service in 1975. Contamination continued to spread to remaining Puchack supply wells, and all wells were removed from service in the mid 1980s, except well No. 1, which the New Jersey Department of Environmental Protection (NJDEP) allowed to be pumped at approximately 800,000 gallons per day, to help prevent the plume from spreading to other public supply wells. Well No. 1 was removed from service in May 1998. The area encompassed by the Puchack Well Field is approximately 450,000 square feet. The Puchack Well Field Site was included on the National Priorities List (NPL), March 6, 1998.

Site Responsibility: The Site is Federal lead, and is currently being addressed by a combination of Federal and State actions.

Threat and Contaminants

Site groundwater is contaminated with hexavalent chromium. Contamination from other metals, and volatile organic compounds (VOCs), including trichloroethane (TCE), 1,2-dichloroethane (1,2-DCA), and tetrachloroethane (PCE) is a regional problem not directly tied to the Site's source areas.

Cleanup Approach

The Site was initially being addressed by the NJDEP, however, as of March 6, 1998, when the Site was included on the NPL, EPA assumed the lead role. Because of the nature and complexity of the Site, involving a large contaminant plume containing chromium and numerous volatile organic compounds, EPA is handling the investigation and cleanup in two distinct phases, called operable units. Operable Unit 1 (OU1), deals with the investigation and cleanup of chromium-contaminated groundwater. Operable Unit 2 (OU2), deals with the investigation and clean up of source areas that contributed to the groundwater contamination. The OU1 Remedial Investigation and the Feasibility Study (RI/FS) have been completed. The OU1 RI field work involved the installation of approximately 64 groundwater monitoring wells in the local area, surveying, and the collection of groundwater samples. As a major part of this effort, the U.S. Geological Survey constructed a groundwater computer model to better understand the complex Site hydrology and geochemistry. In addition, a pilot study to evaluate an in-situ chromium treatment system for groundwater was completed in 2006. A Record of Decision (ROD) for OU1, which describes the selected remedial approach to the chromium contaminated groundwater was issued in September 2006. The Remedial Design for the OU1 remedy began in late 2006. A subsequent RI/FS for the source areas (OU2) is ongoing, with field work to be initiated in the spring of 2008.

Response Action Status

Immediate Actions: In October 1991, the NJDEP issued a Directive and Notice to Insurers to a number of companies in the vicinity of the Site that may have been responsible for discharging hazardous substances that contaminated local groundwater. All of the Puchack Well Field groundwater wells have been shut down and removed from service due to the contamination. Residents are connected to the municipal water supply, thereby reducing potential exposure of contaminated groundwater to the public.

Site Facts: The Site was included on the NPL in March 1998. By 2006, EPA had completed the RI/FS for OU1. EPA is performing enforcement investigations, and has identified one responsible party for the Puchack Well Field Superfund Site

Cleanup Progress

Because of the nature and complexity of the Site, EPA divided the investigation and cleanup into two phases, called operable units. OU1 deals solely with the investigation and cleanup of the chromium contaminated groundwater. The chromium groundwater plume has been characterized, and no operating municipal wells are currently being impacted. OU2 deals with the investigation and clean up of the source areas that are contributing to the groundwater contamination that impacted the Puchack Well Field. In 2006, a pilot study to evaluate an in-situ chrome treatment system for groundwater was completed. The Record of Decision (ROD) for OU1, was completed in September 2006. The RI/FS for OU2 is underway, with field work to be initiated in the Spring of 2008. The Remedial Design of OU1 began in spring of 2007

Site Repositories

Pennsauken Free Public Library, 5605 Crescent Boulevard, Pennsauken, New Jersey, 08110 856-665-5959 U.S. EPA Records Center, Region 2, 290 Broadway 18th Floor, New York NY 10007