

Dover Municipal Well 4

New Jersey

EPA ID#: NJD980654131

EPA REGION 2 Congressional District(s): 11

Morris

Dover

NPL LISTING HISTORY
Proposed Date: 12/1/1982
Final Date: 9/1/1983

Site Description

The Dover Municipal Well No. 4 site is located in the Town of Dover, Morris County, New Jersey. Dover Municipal Well No. 4 (DMW-4) is located approximately 1.5 miles east of three potable water production wells which serve a community of approximately 22,000 people. The Dover Water Commission owns and operates this municipal well field. Dover Municipal Well No. 4 was one of the town's primary drinking water supply wells until it was taken out of service in 1980 because of groundwater contaminated with volatile organic compounds (VOCs). Since that time, standby well No. 3 has been used in place of well No. 4 as a potable water production well.

Site Responsibility: This site is being addressed through federal and state action

Threat and Contaminants

Volatile organic compounds including trichloroethane, tetrachloroethylene, and dichloroethylene have been detected in the Site area groundwater. In September 1980, the Town of Dover voluntarily removed DMW-4 from service and replaced it with standby well #3 which gets its water from a different source.

Cleanup Approach

The remediation of the site consists of operable units: one which addresses the groundwater contamination and one which addresses the source of the contamination.

Response Action Status

Entire Site:

In conjunction with the New Jersey Department of Environmental Protection (NJDEP), several parties potentially responsible for the contamination conducted studies at their own facilities to determine if they were sources of the contamination of Dover Municipal Well No. 4. While the studies identified contamination at the individual properties, they also showed that the facilities were not the source of the contamination at Well No. 4. The State's remedial investigation and feasibility study (RI/FS) at the site to evaluate the nature and extent of the contamination was completed in 1992. The remedy selected in the Record of Decision (ROD), signed in 1992, for the first operable unit included: (1) extraction of contaminated groundwater by pumping Dover Municipal Well No. 4 and an estimated two new extraction wells in order to restore the aquifer to drinking water standards; (2) treatment of extracted groundwater to levels attaining drinking water standards; (3) discharge of the treated groundwater to the public water supply system to the extent practicable, with reinjection of any surplus quantity; and (4) appropriate environmental monitoring to ensure the effectiveness of the remedy.

The ROD also called for a subsequent RI/FS to investigate the overall extent of the groundwater contamination, identify and investigate the source(s) of the contamination, and to develop and evaluate remedial alternatives, as appropriate. In October 1992, NJDEP requested that EPA be the lead agency for cleaning up the site. Based on work done by EPA as part of the design of the groundwater cleanup, the Agency identified a dry cleaner property on Route 46 as the source of the VOCs found in Dover's Municipal Well No. 4. EPA then began a study to determine the extent of the source-related contamination. The results of EPA's study determined that the cleanup selected in 1992 would not be effective unless the source of the contamination were removed. EPA also determined that once the source was removed, the groundwater would clean up within approximately 10 years with or without groundwater pumping. As a result, a ROD was signed in September 2005 for a second operable unit which includes: demolition without replacement of the dry cleaner building to

allow for the excavation of the contaminated soil beneath it and off-site disposal of demolition debris; excavation of contaminated soil, sampling to verify the soil cleanup criteria or standards are met, and backfilling with clean fill; off-site treatment and/or disposal of contaminated soil; and chemical oxidation of any remaining sources of groundwater contamination.

In addition, the ROD modified the 1992 ROD by allowing the groundwater at the Site to naturally attenuate instead of being actively remediated. As modified, the major components of the groundwater remedy include: no extraction, treatment, or discharge of contaminated groundwater; establishment of a network of groundwater monitoring wells; environmental monitoring to ensure the effectiveness of the remedy and the ability of the groundwater to achieve the more stringent of the federal or New Jersey Maximum Contaminant Levels and/or New Jersey Groundwater Quality Standards; and institutional controls, such as the implementation of a classification exception area to restrict the use of groundwater within the area until the aquifer is restored.

Cleanup Progress

On September 30, 2005, EPA issued a ROD selecting a remedy that included demolishing the dry cleaner building, excavating contaminated soil, and treating residual source material through chemical oxidation. EPA also amended the groundwater remedy selected in the 1992 ROD. EPA eliminated the pump and treatment system selected earlier because the groundwater contamination has decreased significantly through natural attenuation since the 1992 ROD was issued. EPA currently believes that once the contamination source has been eliminated, the contaminants in the groundwater will reach acceptable levels in nearly the same time as they would with active treatment at considerably less cost. In August 2007, EPA entered into an agreement with the owner of the dry cleaner property. Under the terms of the agreement, the owner paid the proceeds of an insurance claim to EPA and the New Jersey Department of Environmental Protection and transferred title of the Dry Cleaning Property to EPA. Following closing on the property, EPA demolished the former dry cleaner building in December 2007. Soil sampling conducted at the site as part of the design determined that three houses were situated in very close proximity to the source material, and were in such a poor structural condition, that they needed to be demolished. The acquisition of these houses and relocation of the tenants was completed in August 2008. Demolition of the houses took place in October 2008. A revised 95% Remedial Design for the soil excavation was completed in March 2009. Soil excavation activities at the site were conducted from March to May 2009. The chemical oxidation remedial design was completed in June 2009. EPA and the Army Corps of Engineers selected a contractor in October 2009 to conduct this work. Field work activities to implement this part of remedy commenced in March 2010 and were completed in May 2010. Groundwater samples taken during the treatment process have demonstrated that the technology is performing as expected. Additional groundwater sampling to evaluate the effectiveness of the treatment was performed in summer 2011.

Site Repositories

EPA Administrative Record File Room, 290 Broadway, 18th Floor, New York, NY, 10007 and the Dover Free Public Library, 32 East Clinton Street, Dover, New Jersey