NPL Site Narrative for McGaffey and Main Groundwater Plume

MCGAFFEY AND MAIN GROUNDWATER PLUME
Roswell, New Mexico

Conditions at Proposal (September 13, 2001): The McGaffey and Main Groundwater Plume site is located within the city limits of Roswell, Chaves County, New Mexico near the intersection of South Main Street and McGaffey Street. The area around the site is primarily used as a mixed commercial and industrial area, though residential areas are located further south of the site. The site is being placed on the NPL because perchloroethylene (PCE) has been detected in the aquifers underlying a portion of downtown Roswell and poses a threat to the municipal and private drinking water supply serving the communities of Roswell.

A former dry cleaning facility, Lee Mack Laundry and Dry Cleaners, was located on South Main Street. The facility operated from 1956 until 1963. PCE was used in the dry cleaning operations at Lee Mack Laundry and Dry Cleaners and may have been discharged behind the facility. PCE, a manufactured chlorinated solvent, has been found at levels up to 25,000 micrograms per liter (µg/L) in monitoring wells surrounding the former dry cleaning facility. Chlorinated solvents such as PCE are heavier than water and readily sink in ground water. An exact or calculated volume of the chlorinated solvent released into the ground water at the former dry cleaning facility is unknown at this time. However, very small amounts of these chemicals can contaminate large volumes of soil and ground water.

The New Mexico Environment Department (NMED) discovered the PCE ground water plume in November 1994 during an investigation of a nearby underground storage tank. Subsequently, NMED conducted several soil and ground water investigations to determine the source and potential extent of the plume. During a February 1995 investigation, NMED found PCE in ground water samples collected from 11 of 15 private wells located down gradient of the former dry cleaning facility. In 2000, NMED detected PCE in ground water samples collected from 13 of 16 ground water wells down gradient of the former dry cleaning facility. PCE contamination has been identified throughout the shallow alluvial aquifer, which underlies a portion of downtown Roswell, as a ground water plume that extends from the dry cleaning facility for approximately a mile in a southeasterly direction.

All of the municipal supply wells for the City of Roswell are developed within the deeper artesian aquifer. During routine sampling events by New Mexico Department of Health, PCE has been detected intermittently in two municipal wells from 1995 to the present at concentrations ranging from 0.3 µg/L to 2.3 µg/L. At present, the Maximum Contaminant Level (MCL) of 5 µg/L, (the acceptable limit established by the Clean Water Act) has not been exceeded. Eight schools and one hospital are located within one mile of the site. Approximately 9,600 individuals receive their drinking water from four City of Roswell municipal wells located within four miles of the site. These drinking water supplies, in addition to several private wells, are threatened by PCE contamination in the shallow alluvial aquifer.

Status (September 2002): EPA is considering various alternatives for this site.

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at ATSDR - ToxFAQs (http://www.atsdr.cdc.gov/toxfaqs/index.asp) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.