NPL Site Narrative for Old Roosevelt Field Contaminated Ground Water Area

OLD ROOSEVELT FIELD CONTAMINATED GROUND WATER AREA
Garden City, New York

Conditions at Proposal (February 4, 2000): The Environmental Protection Agency is proposing the Old Roosevelt Field Contaminated Ground Water Area (ORCA) site to the National Priorities List in order to ensure the safety of an operating public drinking water supply located in an area of ground water contamination.

The ORCA site, located in Garden City, Nassau County, New York is a contaminated ground water plume. Currently, the plume is documented by the presence of concentrations of carbon tetrachloride; 1,1-dichloroethene (1,1-DCE); tetrachloroethene (PCE); and trichloroethene (TCE) above health benchmarks in Garden City public supply wells 10 and 11. Historically, the highest levels of TCE were detected in cooling-water well N8050, formerly located approximately 2,000 feet north-northeast of the Garden City wells. Garden City wells 10 and 11 and the former cooling-water well N8050 are all located on the property that historically was Roosevelt Field. There are several potential sources of the ground water contamination, however, there is not adequate information to attribute it to a specific source or sources.

The ORCA site is located on the eastern side of Clinton Road approximately 0.6 mile south of the intersection with Old Country Road. That intersection was the northwest corner of Roosevelt Field and its predecessors, which were used for aviation activities from 1911 until May 1951. The original airfield, known as the Hempstead Plains Aerodrome, encompassed 900 to 1,000 acres east of Clinton Road and south of Old Country Road. The U.S. military began using the Hempstead Plains field before the U.S. entered World War I. When the U.S. entered the war in April 1917, the airfield was taken over as a training center for military pilots and renamed Hazelhurst Field. On September 24, 1918, the Army changed the name of the airfield to Roosevelt Field.

After the war, the U.S. Air Service authorized some companies to operate from Roosevelt Field but maintained control until July 1, 1920, at which time the Government sold its buildings and improvements and relinquished control of the field. Subsequently, the property owners sold portions along the southern edge of the field and split the remainder of the property into two separate fields, Roosevelt Field on the eastern half, and Curtiss Field. Both fields were bought in 1929 by Roosevelt Field, Inc. and the consolidated property was once again renamed Roosevelt Field. The eastern field was sold in 1936 and became a racetrack, while the western field located at the corner of Clinton and Old Country Roads continued to operate as an aviation center.

Roosevelt Field was used by the Navy and Army during World War II. After the war, Roosevelt Field reverted to a commercial airport until it closed in May 1951. Building construction at the site began in 1956. The Roosevelt Field Shopping Mall and Garden City Plaza currently occupy what was once Roosevelt Field.

Besides the aviation activities that occurred at Roosevelt Field, there are several other potential sources of solvent contamination in the site vicinity. There are several industrial sites to the north that were significant users of chlorinated solvents in the past. One of those sites discharged effluent with TCE as high as 10,000 parts per billion (ppb) to sewer pipes that were found to be leaking in 1978 and again in 1986. To the southeast, there are sites where two former solvent distributors were located. Based on the presence of so many potential sources in close proximity to the Garden City wells, the well contamination cannot be directly attributed to a specific source or sources at this time.

Garden City public supply wells 10 and 11 were installed at what had been the southwestern corner of the airfield in 1952 and put into use in 1953. The wells have shown the presence of PCE and TCE since they were first sampled in the late 1970s and early 1980s, and the concentrations have increased significantly since then. In 1987, an air-stripping treatment system was installed at the site to remove VOCs from the raw water being pumped from wells 10 and 11. Sample results of treated well water from May 1993, September 1995, and June/July 1999 have indicated that breakthrough of the treatment system has occurred on those occasions. The population served by each well is estimated to be 3,428 people. Therefore, a population of approximately 6,857 people are considered to be subject to actual contamination at concentrations above health benchmarks, i.e., Level 1. There are also approximately 80 other public supply wells within 4 miles of the site serving more than 300,000 people.

Status (May 2000): 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.