

Old Roosevelt Field Contaminated Groundwater Area

Garden City, New York

EPA Facility ID: NYSFN0204234

Basin: Southern Long Island

HUC: 02030202

Executive Summary

The Old Roosevelt Field Contaminated Groundwater Area is a former airfield in Garden City, New York, that was used between 1911 and 1957 for aviation activities. VOCs have been detected in groundwater wells on the property since the 1970s, although Old Roosevelt Field has not been identified as the specific source of the contaminants. Further investigation is required to determine whether other more persistent or toxic contaminants are present at the site. The NOAA habitats of concern are the surface waters of Mill River, Valley Stream, and East Meadow Creek, which provide habitat for the American eel, a NOAA trust resource.

Site Background

The Old Roosevelt Field Contaminated Groundwater Area (Old Roosevelt Field) is located in Garden City, Nassau County, New York, approximately 3.5 km (2 mi) northeast of Mill River and 2.0 km (1.25 mi) west of East Meadow Creek (Figure 1). Old Roosevelt Field is a former airfield that was used for aviation activities from 1911 to 1957.

Volatile organic compounds (VOCs), primarily trichloroethene (TCE) and tetrachloroethene (PCE, also known as perchloroethylene), have been detected in groundwater wells located on the Old Roosevelt Field property since they were first sampled in the 1970s (USEPA 2000). In sampling conducted in 1984, VOC concentrations were measured at increased levels as compared to earlier measurements (USGS 1989). The specific source of the contaminants has not been attributed to Old Roosevelt Field. Other potential sources are nearby industries such as Johnson and Hoffman, Consolidated Lithography, and U.S. Printing (NYSDEC 1999).

The U.S. Environmental Protection Agency (USEPA) placed the Old Roosevelt Field Contaminated Groundwater Area on the National Priorities List of hazardous waste sites in May 2000 (USEPA 2000). Although the USEPA initiated a remedial investigation/feasibility study (RI/FS) in the summer of 2001, information on the current status of the RI/FS is not available (USEPA 2002).

Groundwater is the primary pathway for the migration of contaminants to NOAA trust resources. Groundwater is encountered at 8 to 15 m (25 to 50 ft) below the surface in the Upper Glacial aquifer. Groundwater flows southwest toward the Atlantic Ocean (USGS 1989).

NOAA Trust Resources

The NOAA trust habitats of concern are Mill River, Valley Stream, and East Meadow Creek, all relatively small streams with several impoundments that block the passage of anadromous fish. American eel, a NOAA trust resource, can traverse these impoundments and is present in the middle to upper reaches of these three streams (Kozlowski 2002).

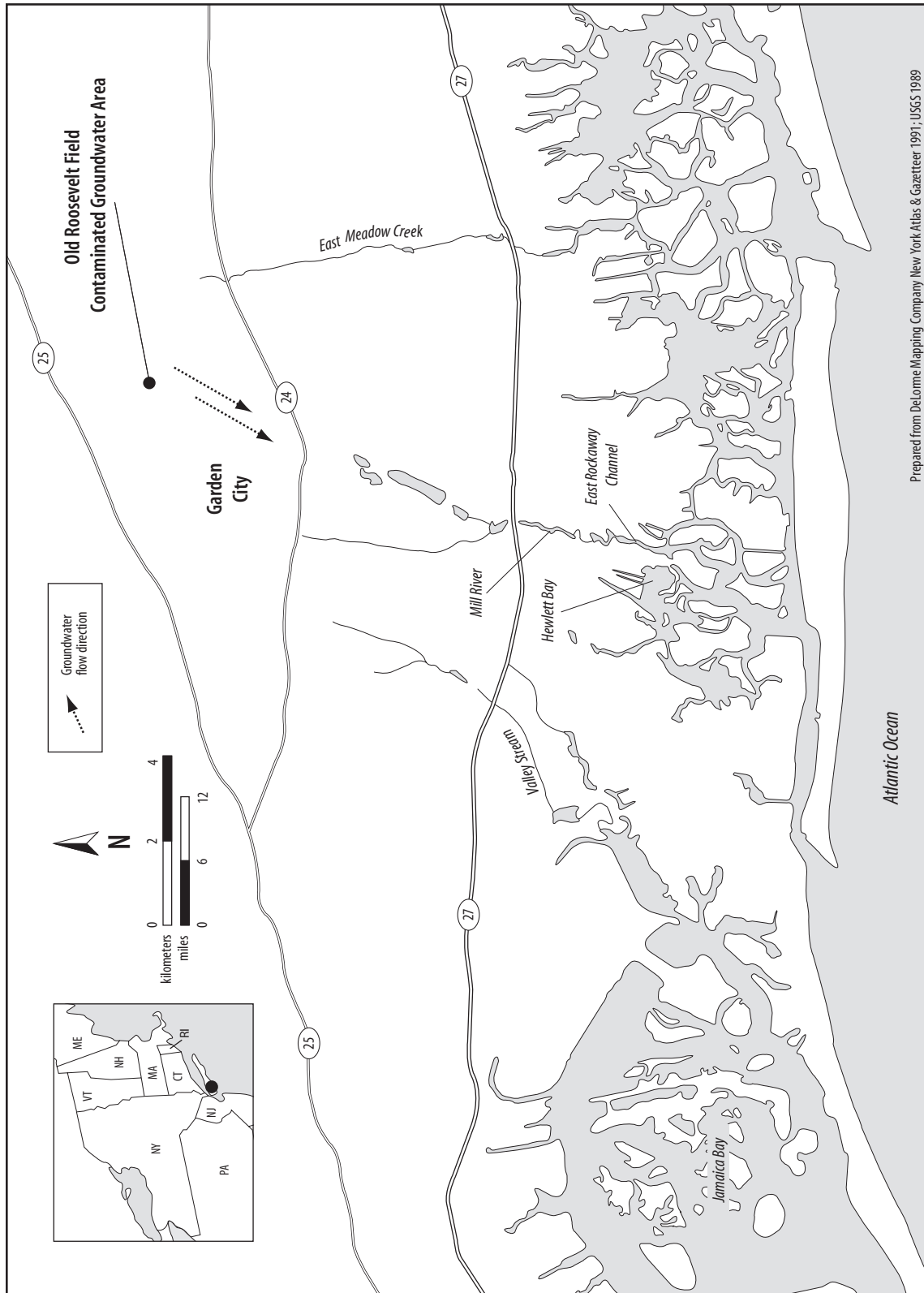


Figure 1. Location of the Old Roosevelt Field Contaminated Groundwater Area, Garden City, New York.

Site-Related Contamination

VOCs, the primary contaminants of concern at the Old Roosevelt Field site, have a relatively low persistence and toxicity to aquatic organisms. A total of 224 water samples were collected in August and September 1983 and in April through June 1984 from 52 monitoring wells, 28 public-supply wells, and 25 cooling-water wells. Three VOCs of primary concern were detected: 1,2-dichloroethylene (DCE), PCE, and TCE (Table 1). Maximum concentrations of DCE and PCE were below the ambient water quality criteria (AWQC) (USGS 1989). The maximum concentration of TCE exceeded the AWQC by less than one order of magnitude. Further investigation is required to determine whether other more persistent or toxic contaminants are present at the site.

Table 1. Maximum concentrations of contaminants of concern (VOCs) detected in groundwater at the Old Roosevelt Field Contaminated Groundwater Area (USGS 1989).

Contaminant	Water (µg/l)	
	Groundwater	AWQC ^a
1, 2-Dichloroethylene (DCE)	2800	11600
Tetrachloroethene (PCE)	550	840
Trichloroethene (TCE)	38000	21900 ^b

a: Ambient water quality criteria for the protection of aquatic organisms (USEPA 1993). Freshwater chronic criteria presented.

b: Chronic criterion not available; acute criterion presented.

References

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