

USEPA Region 2 Remedial Action Contract 2 Project Description

GRB is a major subcontractor working with HDR Engineering, Inc. on the USEPA Region 2 RAC2 contract. This 10-year \$110 million contract mirrors the technical requirements of this contract. To date GRB has been awarded 7 Task Orders for the following sites:

- Solvent Savers Superfund Site
- Lawrence Aviation Industries Superfund Site
- Combe Fill South Landfill Superfund Site
- Fulton Avenue Groundwater Plume Superfund Site
- Peninsula Avenue Superfund Site
- Gowanus Canal Superfund Site
- Woodbrook Dump Superfund Site

A brief description of each task order is provided below.

Solvent Savers

The Solvent Savers site covers 13 acres in the Town of Lincklaen. Industrial solvents and other wastes were brought to Solvent Savers Inc., a chemical waste recovery facility, for reprocessing or disposal from about 1967 to 1974. Operations included distillation to recover solvents for reuse, drum reconditioning, and burial of liquids, solids, sludges, and drums in several on-site areas. The quantities and types of wastes disposed at the site and their locations are not fully known. Two residences are located approximately 500 feet north and 1,250 feet south of the site. Public water supplies do not exist in the general area; therefore, the residents rely on private wells. The Town of Lincklaen has a population of approximately 500 people. Fifteen dairy farms are located in the Town. Pastures for dairy cows are located 2 miles from the site along a portion of Mud Creek, which is downstream of the site. Mud Creek is classified as a trout stream by the State and is used for recreational activities and livestock watering. In addition, alfalfa, corn, and other crops for human and livestock consumption are grown in the area.

GRB was required to perform PRP oversight services including the following:

- Review and Comment on PRP Groundwater Remedial Design Work Plan
- Review and Comment on PRP Remedial Design Work Plan and Cost Estimate
- Provide Remedial Action Oversight Services

Lawrence Aviation Industries

The Lawrence Aviation Industries (LAI) site is located in the Village of Port Jefferson Station, Town of Brookhaven, Suffolk County, New York. LAI was a manufacturer of titanium sheeting for the aeronautics industry. Groundwater from the underlying Upper Glacial/Magothy aquifer is the only source of drinking water in the site vicinity. There are 47 public supply wells, serving an estimated 120,500 people within 4 miles of the site. Past disposal practices and releases from leaking drums at LAI have resulted in numerous violations cited by both Suffolk County Department of Health Services (SCDHS) and New York State Department of Environmental Conservation (NYSDEC). In 1980, the company crushed more than 1600 drums, allowing the liquid contents to spill on unprotected soil. The drums contained trichloroethylene (TCE), tetrachloroethylene (PCE), spent acid sump sludges, salt wastes, hydraulic oils, hydrofluoric acid,

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nitric acids, and other plant wastes. SCDHS also observed numerous discharges from various plant activities to the ground surface and into two unlined lagoons.

GRB is providing daily operation and maintenance of two groundwater recovery, treatment, and discharge systems.

Combe Fill south Landfill

The Combe Fill South Landfill consisted of three separate fill areas comprising 65 acres on a 115-acre parcel of land between Chester and Washington Townships. The site operated as a municipal landfill from the 1940s until 1981 and was licensed to accept domestic and non-hazardous industrial wastes, sewage sludge, septic tank wastes, chemicals, and waste oils. In 1978, Combe Fill Corporation (CFC) bought the landfill. While under CFC management, procedures at the landfill violated many of the New Jersey solid waste administrative codes. CFC went bankrupt in 1981, before the landfill was properly closed. A citizens' group, one of two formed by residents who were concerned over disposal practices at the site, sampled the groundwater, leachate, and surface water and found them to be contaminated. Testing indicated that the fill material consists mainly of highly decomposed rubbish, and that no hot spots or localized sources of hazardous substances could be located. Contaminants have seeped into the aquifer beneath the site. The area surrounding the site is semi-rural. Nearby Trout Brook is used for fishing and recreational activities. Approximately 170 people live within 1/2 mile of the landfill. Most of the residents use private wells as their source of drinking water. Vegetable and grain crops, orchards, and horse farms are located near the site. In 1986, EPA and the State selected a containment remedy for the site. The containment remedial action has been completed and the site is now undergoing operation and maintenance.

GRB provided drilling, sampling, and monitoring well installation oversight services during RI/FS activities. Deep wells were drilled to approximately 700 feet. A multi-zone permanent groundwater monitoring system such as the FLUTE™ multi-port liner was utilized to allow for discrete sampling from multiple levels within each borehole

Fulton Avenue Groundwater Plume

The Fulton Avenue Site located at 150 Fulton Avenue is the former location of a cutting mill and dry cleaning facility. The property is about 0.8 acre and houses a 20,000 square foot building. There have been numerous previous owners and/or occupants of the building, some of which utilized a dry cleaning process in their production line. Data suggest that a groundwater plume of volatile organic compounds (VOCs), composed chiefly of the dry cleaning solvent tetrachlorethene (PCE), is emanating from the former dry well located at 150 Fulton Avenue and is migrating both horizontally and vertically. Numerous public supply wells may have been or may currently be impacted by this plume. VOCs, especially PCE, were detected in both on-site and off-site groundwater monitoring wells and have impacted at least one public supply well and possibly others in the area. These wells have either been taken out of service or had treatment installed in order for the well water to meet drinking water standards. Operating wells which may have been impacted by the Site's plume are routinely monitored to ensure compliance with State and Federal drinking water standards. Subsurface soils were also contaminated with VOCs.

GRB performed a well search of the area, identified area NYSDEC/EPA/USGS monitoring wells and public supply wells to be sampled, and performed a well inspection survey. GRB is scheduled to provide drilling, sampling, and well installation services and groundwater sampling.

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Peninsula Avenue Superfund Site

The Site consists of an area within and around where a groundwater plume was identified during a series of site investigations and remedial activities conducted from 1991 to 2008. Analytical data revealed lower concentrations of plume-related compounds towards the boundary of Site. The plume reportedly extends approximately 3,250 feet northwest to southeast and is approximately 1,200 feet wide at its widest point. The southern two-thirds of the plume exist south of Peninsula Boulevard, within a residential neighborhood. The northern one-third of the plume occurs north of Peninsula Boulevard, where commercial and municipal properties are located. The Site was referred to EPA after NYSDEC concluded that the contamination present in the groundwater did not originate solely from the former Grove Cleaners site. The EPA assumed responsibility for the larger Peninsula Boulevard Groundwater Plume Site in September 2002. A Hazard Ranking System Package (HRSP) was prepared in March 2004, and the Site scored 50 of a possible 100 points, placing the Site on the National Priorities List (NPL) in August 2004.

GRB prepared an Ecological Risk Assessment. The report prepared by GRB presents the results of the Screening Level Ecological Risk Assessment (SLERA) for the Peninsula Boulevard Superfund Site (the Site), located in the Village of Hewlett, Town of Hempstead, Nassau County, New York.

The SLERA estimated exposure to biota through the evaluation of media-specific contaminant concentrations and pathways of potential exposure. The purpose of the SLERA was to assess the potential for ecological risks from on-site contaminants to potential ecological receptors that are in either direct contact with or can inhale or ingest these contaminated media. Through the SLERA, if it is determined that there is a high probability that contaminants on a site will not pose a risk to ecological receptors, then no further risk evaluation is required. However, if it is determined that contaminants may pose a risk to ecological receptors, further investigation in the form of a Baseline Ecological Risk Assessment (BERA) could be required.

Gowanus Canal Superfund Site

The Gowanus Canal was built to allow access for industrial needs by bulkheading and dredging a tidal creek and wetland that had previously been fished for oysters. After its completion in the 1860s, the canal quickly became one of the nation's busiest industrial waterways, home to heavy industry including gas works (i.e., manufactured gas plants), coal yards, cement makers, soap makers, tanneries, paint and ink factories, machine shops, chemical plants, and oil refineries. It was also the repository of untreated industrial wastes, raw sewage, and surface water runoff for decades, causing it to become one of New York's most polluted waterways. Although much of the industrial activity along the canal has stopped, high contaminant levels remain in the sediments. Despite the ongoing pollution problems, some city dwellers currently use the Gowanus Canal for recreational purposes, such as canoeing and diving, while others catch fish for consumption. Numerous sampling events have shown the sediments in the Gowanus Canal to be contaminated with a variety of pollutants, including polycyclic aromatic hydrocarbons (PAHs), volatile organic contaminants (VOCs), polychlorinated biphenyls (PCBs), pesticides, and metals. PAH concentrations were found to be as high as 45,000 milligrams per kilogram (4.5%) and the contamination was found to traverse the entire length of the canal. Many of the detected contaminants are known

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carcinogens. The contaminated sediments pose an immediate risk to the fishery located just downstream of the canal in Gowanus Bay.

GRB performed services related to the Remedial Investigation/Feasibility Study for the Gowanus Canal, Brooklyn, Kings County, New York including activities for Phase 3 Risk Assessment Sampling, Upland Well Investigation, and Cultural Resources.

Woodbrook Dump Superfund Site

EPA added the Woodbrook Road Dump site to the Superfund National Priorities List on April 30, 2003 due to contamination of the soil and ground water on the 70-acre property. The site is heavily wooded and bordered by Bound Brook and the wetlands of Dismal Swamp. The land was used as a dump in the 1940s and '50s and accepted household waste as well as industrial waste until it was shut down by the state of New Jersey in 1958. In September 1999, partially buried, leaking capacitors were discovered and removed. A subsequent investigation revealed high levels of hazardous substances in the soils and sediments. Contaminants include polychlorinated biphenyls (PCBs), a known carcinogen, high levels of inorganics as well as volatile organic compounds (VOCs). The ground water was also found to be contaminated with VOCs, inorganic constituents and PCBs.

The DRAFT Screening-Level Ecological Risk Assessment – Woodbrook Road Dump Superfund Site, South Plainfield, New Jersey (May 2010), as prepared by TRC, Millburn, New Jersey (“Eco Risk Assessment”), was reviewed by GRB Environmental Services, Inc. (GRB) for conformance with appropriate EPA guidance (Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessment [EPA, 1997c; “ERAGS”). The approach and methodology were evaluated and a detailed review was performed on the text of the document and the supporting data tables. Technical comments were subsequently prepared and presented to the EPA.