# NPL Site Narrative for Vega Baja Solid Waste Disposal

## VEGA BAJA SOLID WASTE DISPOSAL
## Rio Abajo Ward, Puerto Rico

**Conditions at Proposal (April 23, 1999)**: The Vega Baja Solid Waste Disposal (VBSWD) site is located in the Rio Abajo Ward, Vega Baja, Puerto Rico. The site is an inactive dump located on approximately 15 acres of land. The Vega Baja Municipality borrowed the land from the Puerto Rico Land Authority in 1948 and utilized the property and an unlined, open burning dump for institutional, commercial, and industrial wastes until 1978. There are currently more than 206 residential dwellings constructed on an 11-acre portion of the site.

In May 1994, the Puerto Rico Environmental Quality Board (PREQB) collected surface soil samples near several of the residential dwellings as part of a Site Inspection. Lead and copper were detected in the samples at elevated concentrations. In June of 1996, an Expanded Site Inspection (ESI) of the VBSWD site was conducted by the PREQB and EPA's Superfund Technical Assessment and Response Team (START), which included the collection of surface and subsurface soil samples as well as sampling of ground water from public and private water supplies. The results of the ESI documented the presence of contaminated soil across the surface of the site and within 200 feet of three residential homes. The soil is contaminated with inorganic hazardous substances. The ground water samples collected during the ESI did not detect the presence of hazardous substances at concentrations significantly above background conditions. The environmental sampling conducted during the ESI was performed in accordance with EPA sampling methodologies and analyzed at an EPA Contract Laboratory Program (CLP) laboratory. The data have been validated according to EPA CLP Region II protocols.

In June 1998, START collected ground water samples from three monitoring wells, a U.S. Geological Survey (USGS) observation well, and three public water supply wells situated in the site vicinity. Hazardous substances were not detected in the ground water samples collected. In June 1998, the EPA Removal Action Branch conducted additional environmental sampling at the site (i.e., subsurface soil investigation).

The site is situated on a limestone upland containing the outcrop areas of the Aymamon Limestone, the Aguada Limestone, and the Cibao Formation, all of which contain karst aquifers that have been developed for public supply. The formations consist of heavily weathered limestone that ranges in texture from chalky to fossiliferous to crystalline. Topographic features such as mogotes (limestone hills) and dolines (sinkholes), solution cavities, and evidence of solution channels exist near the site, all typical of karst terrain. Blanket sands and alluvium deposits, consisting primarily of brownish-red soil, overlie the limestone bedrock, although not continuously within the site vicinity.

Seventeen active Puerto Rico Aqueduct and Sewer Authority (PRASA) wells exist within the target distance limit, the closest of which lies 0.70 mile east-northeast of the site. These wells provide drinking water to over 70,000 people, and may potentially be affected by the migration of contaminants from the site in ground water through the highly permeable karst aquifers from which most of these wells draw. No

containment measures (i.e., cover, liner, etc.) are known to have been used at the site that could prevent such migration.

**Status (July 1999)**: 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.