# SIKES DISPOSAL PITS SUPERFUND SITE

**Harris County, Texas** 

**EPA Region 6** 

**EPA ID: TXD980513956** 

Site ID: 0602488

State Congressional District: 09

Contact: Gary Miller 214-665-8318

Updated: May 2009



## **Current Status -**

The Texas Commission on Environmental Quality (TCEQ) is responsible for operation and maintenance activities at the Site. These activities include semi-annual monitoring of shallow monitor wells and annual monitoring of the deep monitoring wells. TCEQ completed ground water sampling in May 2006 for both the shallow and deep monitoring wells.

A five-year review of the Site was completed on September 27, 2006. The five-year review determined that the remedy for the Sikes Site is currently protective of human health and the environment and will remain so provided certain actions are taken, including creation of institutional controls to prohibit use of ground water for all properties at the Site. The TCEQ is currently developing institutional controls for these additional properties. The long-term protectiveness of the containment remedy will continue to be verified by sampling and inspections conducted by TCEQ.

The next five-year review is scheduled for completion by September 2011.

#### **Benefits** -

The cleanup actions completed reduced the threats from the Site. These former threats included direct contact with contaminated soils, sludges, and surface water; consumption of contaminated ground water; and inhalation of toxic organic compounds. A total of 496,253 tons of contaminated soil and sludge, and 350 million gallons of contaminated water were treated through the incineration remedy.

## National Priorities Listing (NPL) History —

Proposal Date: October 23, 1981 Final Listing Date: September 8, 1983

## Site Description -

Location: The Site is located about two miles southwest of the City of Crosby, immediately north of

old U.S. Highway 90, and roughly 20 miles northeast of Houston, Harris County, Texas.

Population: Approximately 10,000 people reside in Crosby and the surrounding communities. The

Riverdale subdivision, the closest residential development, is 500-feet southwest of the

Site.

Setting: The Site covers approximately 185-acres. It is bordered by the San Jacinto River on the

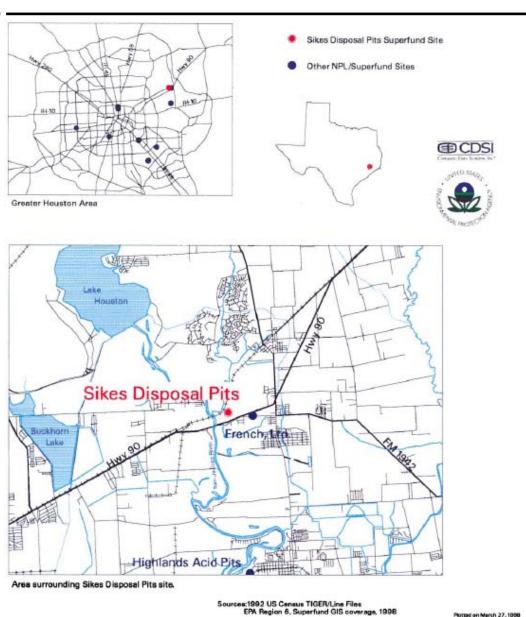
west, Jackson Bayou on the north, and old U.S. Highway 90 on the south. The Site is

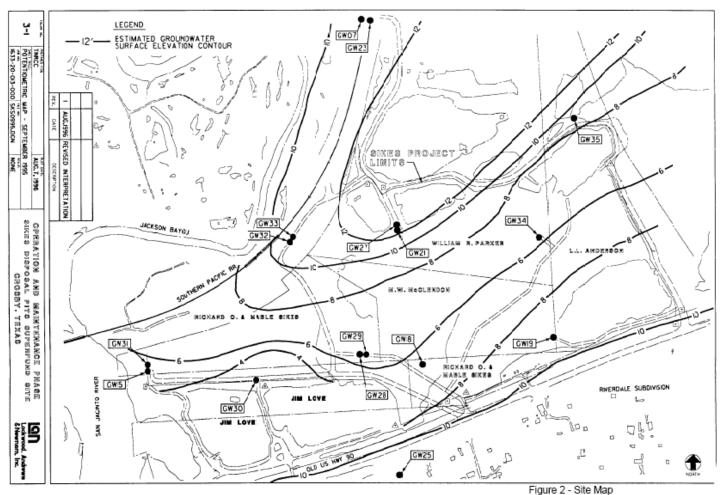
entirely located within the 100-year flood plain of the San Jacinto River, and portions of the Site are within the 10-year and 50-year flood plains. The Site is frequently inundated. Areas around the Site are largely undeveloped with numerous sand pits and swampy areas. The ground water monitoring wells are the only remaining structures relating to the remedy, and each is secured by an individual fence with a locked gate. The Site currently includes two occupants including one residence and the Love Marina.

Hydrology:

Soils at the Site consist of river alluvium overlying Texas Coastal Plain deposits. Shallow water-bearing zones occur in the alluvium, which varies in thickness between 17 and 34-feet. Ground water in the shallow aquifer flows to the southwest. A deeper water-producing zone is found in a sandy-silt zone of the Coastal Plain deposits at about 65-foot below the alluvial aquifer. A clay stratum separates these two uppermost aquifers. The Chicot and Evangeline Aquifers occur beneath several hundred feet of clay, which is below the Coastal Plain aquifer.

## Site Map





\* Reproduced from EPA, Second Five-Year Review, 2001

Sikes Disposal Pits Superfund Site Crosby, Harris County, Texas

#### **Wastes and Volumes**

Beginning in the early 1960's until 1967, a variety of chemical wastes from area petrochemical companies were disposed in on-site unlined sand pits. The wastes were mainly petroleum and chemical wastes, such as benzene, toluene, xylene, creosote, phenols, olefins, and other organic solvents. The wastes also contained metals such as arsenic, mercury, cadmium, chromium, and lead. A sludge overflow extended eastward over a large area from the main waste pit. Wastes leaching from the pits heavily contaminated ground water in the shallow alluvium aquifer. The deeper Coastal Plain aquifer contained trace levels of several volatile organic compounds. Waste volumes at the Site were approximately as follows: 350 million gallons of contaminated ground and surface water; 496,000 tons of organic sludge and contaminated soils; and 2000 drums of mixed waste.

The site's Environmental Indicator status is human exposure under control and ground water migration under control.

#### **Health Considerations** -

Prior to remediation, potential human health problems could be caused by contact or ingestion of Site contaminants. Fishing and hunting activities occur routinely around the Site. Surface water and ground

water were contaminated. Some local residents use the shallow aquifer as a supply for drinking water. The underlying Chicot and Evangeline Aquifers were determined to be in no danger from the contamination.

#### Record of Decision —

The Record of Decision (ROD) was signed on September 18, 1986. The selected remedy including the following:

- Excavation of soil and sludge containing more than 10 parts-per-million of volatile organic compounds.
- On-site incineration of soil and sludge.
- On-site disposal of residue ash from incineration.
- · Backfilling of pits and excavated areas.
- Treatment of contaminated surface water.
- Prevent use of contaminated ground water while it naturally attenuates (Institutional Controls).
- Monitoring of the upper and lower aquifers.

Construction completion was achieved on January 30, 1995. Excavation and incineration of the contaminated materials, and Site restoration, were completed in June 1994. The incineration ash was backfilled on-site and covered with 18-inches of clean soil and 6-inches of topsoil. Afterwards, the incinerator facilities were removed and the Site was planted with local grasses.

# Community Involvement -

Community Involvement Plan: Revised December 1987.

Open Houses: January 1988; January 1989; October 1990; February 1991;

January 1992; and November 1992.

Proposed Plan and Public Meeting: August 1986

Technical Assistance Grant: Availability Notice – April 1988; August 1990 Final Applications Received: Barrett-Crosby Civic League; August 1990.

Grant Award: March 4, 1991

Current Status: Grant was not used; grant withdrawn and closed in 1998.

Information Repository: Crosby Public Library

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Crosby, Texas 77532 (281) 328-3535

## Site Contacts -

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