

SOL LYNN SUPERFUND SITE

Houston, Harris County, Texas

EPA Region 6

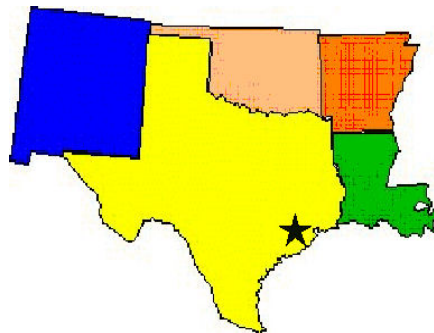
EPA ID #: TXD980873327

Site ID: 0602954

State Congressional District: 25

Contact: Gary Miller 214-665-8318

Updated: November 2009



Current Status

Soil in the soil mound area in the southern part of the site was removed in March 2009 and disposed of off-site.

A remedial action to treat ground water contaminants using bioremediation is planned. The first round of the in-situ bioremediation treatments, consisting of emulsified vegetable oil and nutrient injection into the shallow water zones, is planned for this year. A second round of injections will also be performed about one year later.

Soil samples collected in August 2007 from the soil mound area located in the southern part of the site showed that the soil material is non-hazardous. Ground water sample collection to establish the current, baseline condition was completed in June 2007.

In September 2006 EPA and TCEQ signed a Superfund State Contract for implementation of a new remedial action for the site. The remedial action included treatment of the highly contaminated ground water source areas using in-situ bioremediation. A Value Engineering Study was then completed to improve the effectiveness of the remedial action design.

EPA is also working to develop and implement institutional controls to restrict use of ground water for as long as contamination levels remain above drinking water levels. EPA met with the City of Houston, the Houston-Galveston Subsidence District, and TCEQ staff in June 2006 to explore institutional control alternatives.

The next Five-Year Review Report is scheduled for completion by May 1, 2009.

Benefits

The excavation and disposal of contaminated soil eliminated direct human exposures. The contaminated ground water plume is currently expanding and migrating down gradient. The planned ground water remediation will reduce this expansion and reduce the human health risks resulting from the contaminants, which have migrated off-site to the north.

National Priorities Listing (NPL) History

Proposal Date: October 15, 1984

Final Listing Date: March 31, 1989

Site Description

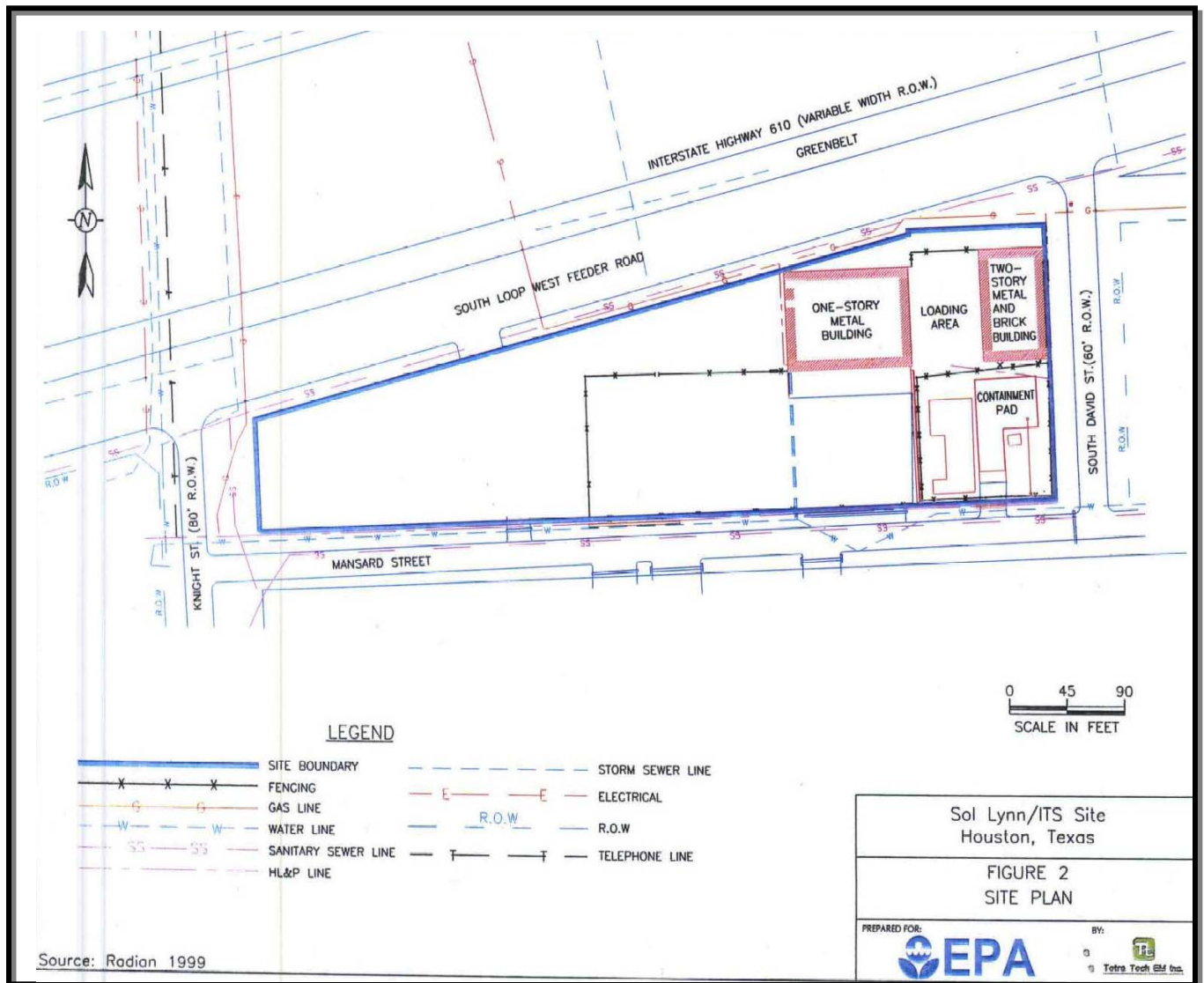
Location: The site is located at 1403, 1415, 1417, and 1419 South Loop 610 West in Houston, Harris County, Texas.

Population: Approximately 2,100 persons live within one-mile of the Site.

Setting: The Site covers 0.75 acres with two buildings and a loading area in the northern part. Much of the southern portion is paved. Land use in the area is commercial, light industrial, and residential. The Site is within one-half mile of the Astrodome, Astroworld Amusement Park, several industrial plants, and apartment complexes. The Site has Four Houston city water wells and four private water wells within three miles of this Site, which serve more than 10,000 persons. These wells are screened at depths exceeding 700 feet.

Hydrology: Shallow ground water is found at a depth of about 20-feet. Nine water-bearing zones are present above a depth of 200-feet. The top four water-bearing zones, which are currently contaminated, generally flow in a northerly (varying between northeast and northwest) direction. The estimated ground water flow velocity for these four zones varies between 17 feet/year and 68 feet/year.

Site Map



Wastes and Volumes

The site is a former scrap metal and electrical transformer salvage and recycling facility, which operated between 1971 and 1978. A chemical recycling and supply company subsequently operated at the same location from 1979 through 1980. PCBs and solvents were dumped on-site over a 1-acre area during these operations.

The principal pollutants at the Site include trichloroethylene (TCE) in ground water and polychlorinated biphenyls (PCBs) in soils. Prior to initiating remedial action, TCE in ground water was as high as 790 parts per million (ppm), and PCBs in soil ranged up to 357 ppm. Approximately 2,400 cubic yards of soil and 12 million gallons of ground water were contaminated with site wastes.

Health Considerations

Ingestion of TCE from ground water poses a risk to human health. Prior to remediation, Site soils were contaminated by PCBs and TCE.

The site's Environmental Indicator status is human exposure under control and ground water migration not under control. Achievement of the ground water migration under control Environmental Indicator is expected following implementation of the amended ground water remedy described below.

Record of Decision

The Record of Decision for Operable Unit 1 (OU1), which addressed soil contamination, was signed on March 25, 1988, and amended on September 30, 1992. The Record of Decision for OU2, which addressed ground water contamination, was signed on September 23, 1988, and amended on September 30, 2004. The selected remedies (as amended) included the following:

- Soil: Chemical dechlorination was initially chosen as the soil remedy; a process whereby contaminated soils are mixed with chemical reagents to remove halogenated organic compounds. During pilot testing, the technology performed well, but upon application in the field, the process could not be effectively implemented. Subsequently, the remedy for soil was changed to excavation and off-site disposal. In 1993, a total of 2,281 cubic yards of soil was excavated and disposed of off-site. This action completed the final soil cleanup for the Site.
- Ground Water: The initial ROD for OU2 selected pump-and-treat as the ground water remedial technology. Ground water recovery began in 1993. A total of 15.5 million gallons of contaminated ground water was recovered before the pump-and-treat system it was shut down in early 2000 when it was determined that the existing system would not achieve the remediation goals. The amended ground water ROD selected in-situ bioremediation with monitored natural attenuation and institutional controls as the remediation technology.

Construction completion was achieved for the site on September 29, 1993, when construction for the initial pump-and-treat ground water remedy was completed.

Community Involvement

Community Involvement Plan: Revised September 2004
Proposed Plan: April 8, 2004
Public Meeting: April 15, 2004
Technical Assistance Grant: April 1989 - No Final Applications received

Information Repository: Houston Central Library, Texas & Local History Division
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Site Contacts

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