

**SOUTH CAVALCADE  
STREET**  
Houston, Harris County, Texas  
EPA ID# TXD980810386  
Site ID: 0602895



**EPA Region 6  
Congressional District 18**

**Updated: December 2009**

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## **Current Status**

EPA, the Texas Commission on Environmental Quality (TCEQ), and the Site's Responsible Party, Beazer East, Inc., have been discussing different ground water remedial options for the Site, including a natural attenuation component. To support a possible modification of the current remedy, Beazer completed additional field work (9/2005) to better define the ground water plume at the southwest corner and the preferential migration pathways in the shallow (~ 22' below ground surface) and intermediate (~40-50' below surface) aquifers. This additional information is summarized in the *Supplemental Ground Water Investigation Report* (March 1, 2006) submitted to EPA. The first Site Map (included below) is taken from this report and illustrates the inferred boundaries of Dense Non-Aqueous Phase Liquid (DNAPL) for both aquifers.

Based on the results of the investigation and previous fate and transport reports, Beazer has submitted in May 2007, a follow-up draft Focused Feasibility Study (FFS) to evaluate the current remedy, as well as other options to address the impacted ground water. A meeting was held on June 26, 2007 and on November 29, 2007 with Beazer and the regulators to discuss comments to the draft FFS. Beazer will be providing additional information to the EPA and TCEQ before the draft FFS is finalized. The EPA, TCEQ and Beazer have been having discussions with the Harris County Toll Road Authority (HCTRA) regarding their plans of a north-south extension of the Hardy Toll Road adjacent to the western boundary of the Site and an east-west expansion of Collingsworth Street adjacent to the southern boundary of the Site. A meeting with EPA, TCEQ, Beazer, HCTRA, and City of Houston (COH) was held on December 4, 2008. A follow-up meeting was held on February 18, 2009 with EPA, TCEQ, Beazer, HCTRA, and COH. HCTRA is working on plans to submit to EPA, TCEQ, and Beazer for concurrence. EPA met with HCTRA, HB&T (Houston Belt & Terminal Railway Company), and their contractors on July 22, 2009 to discuss plans for the Hardy Toll Road Extension. HCTRA conducted hydrogeologic model evaluations for the site and has determined no significant impact of construction of the Toll Road and Collingsworth Street on the site. EPA continues to have discussions with Beazer and the HCTRA regarding the plans.

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## **Benefits**

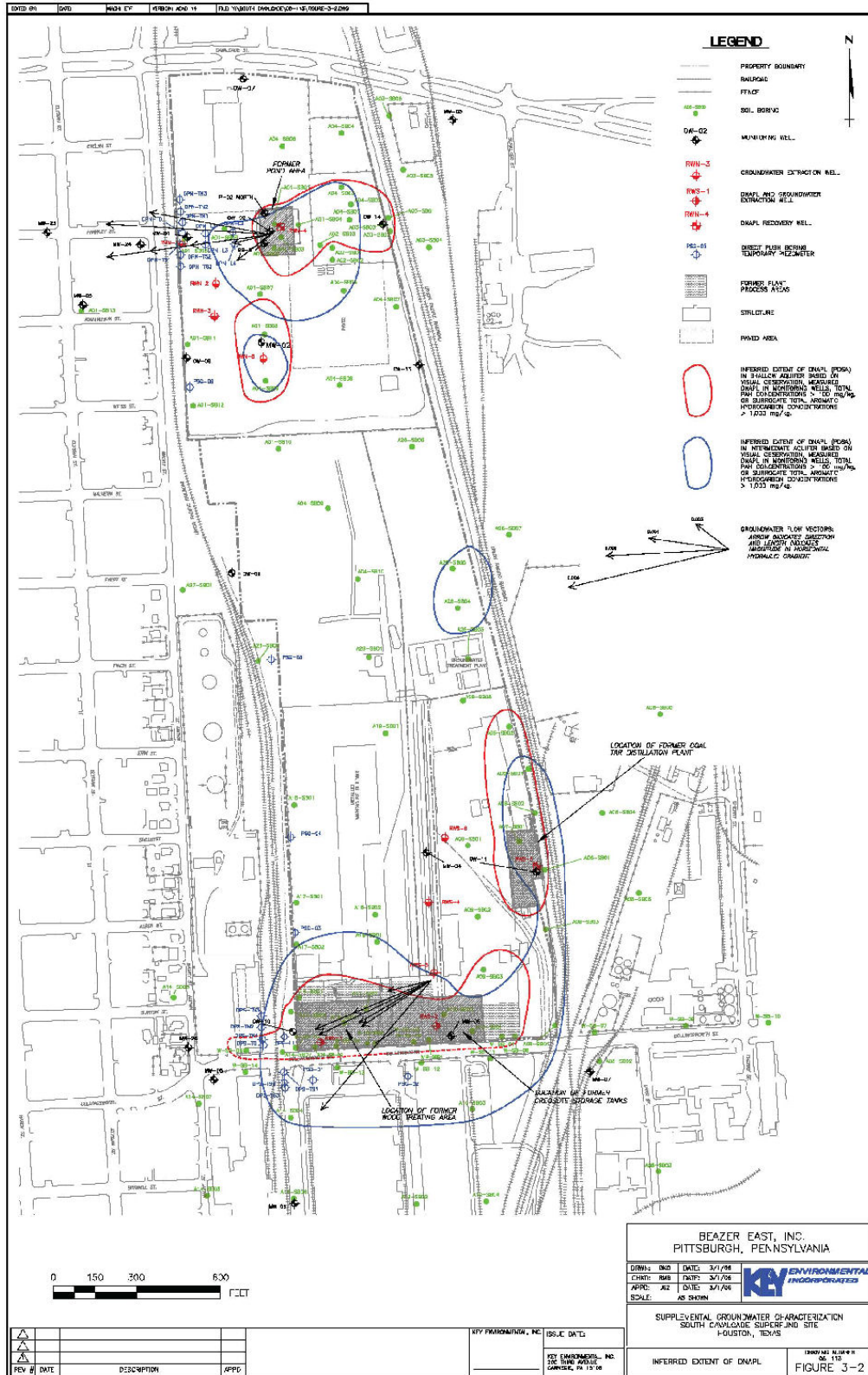
Contaminated soils have been contained and capped in two separate areas of the Site, eliminating any potential for direct contact with impacted soils and ensuring current and future protection of human health and the environment.

The DNAPL extraction system, in operation since 1966, has removed over 2800 gallons of product. The 1988 Record of Decision requires that ground water extraction continue until contaminants have been removed to the maximum extent practicable, through treatment to drinking water standards and no detectable polynuclear aromatic hydrocarbons (PAHs). That remedial goal is currently being re-evaluated, along with other options including a monitored natural attenuation remedy component. There is, however, no known exposure to contaminated ground water in the area. Drinking water is provided by the City's municipal water system, and there is no indication of private well use down gradient from the Site. Institutional controls have been established at the Site to ensure that future use will remain non-residential and to prohibit on-site ground water use.

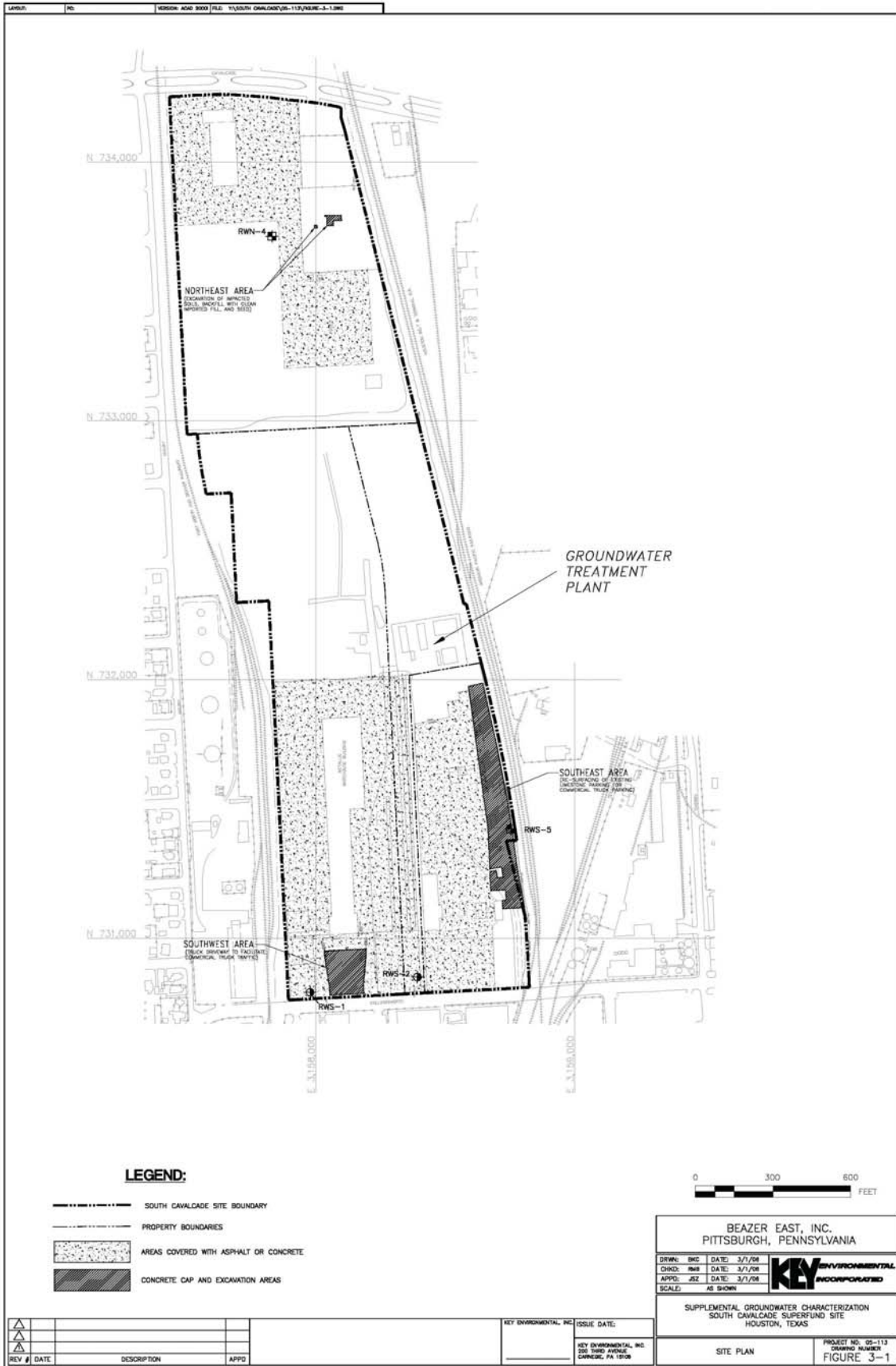
# National Priorities Listing (NPL) History

NPL Inclusion Proposal Date: October 5, 1984  
 NPL Inclusion Final Date: June 10, 1986  
 HRS Score: 38.69

## Site Maps



South



## Site Description

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The South Cavalcade Superfund Site occupies approximately 66 acres of land located approximately three miles north of downtown Houston, Texas, and about one mile southwest of the intersection of Interstate Loop 610 and U.S. Highway 59. The Site is bounded by Cavalcade Street to the north, Collingsworth Street to the south, and the Missouri and Pacific Railroads to the east and west. The Site is situated in what would be considered a light industrial corridor, but is bounded on the west side by a large residential area.

The HCTRA is planning a north-south extension of the Hardy Toll Road, to be built in the rail right-of-way adjacent to the western boundary of the Site. The Toll Road, if constructed as planned, would further separate these industrial properties from the residential areas to the west. The HCTRA is also planning on expanding Collingsworth Street adjacent to the southern boundary of the Site.

The Site is currently occupied by three trucking firms, with much of the ground surface (particularly in the southern half of the site) covered by pavement, buildings, or storage areas. A ground water treatment facility is located at the eastern boundary in the central portion of the Site. Two areas of contaminated soil, along the southeastern boundary and in the southwestern portion of the Site, have been capped and are being used for truck parking.

## Wastes and Volumes

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National Lumber and Creosoting Company constructed and operated a wood preserving facility on the Site from 1910 to 1938, at which time the property was acquired by the Wood Preserving Corporation, a subsidiary of Koppers Company. In 1940, that Corporation became a part of Koppers Company, Inc., now known as Beazer East, Inc., and operated the wood treating facility from 1940-1962. Koppers constructed a coal tar distillation plant in the southeastern portion of the Site, which operated from 1944 to 1962, at which time the property was again sold, and later subdivided.

In 1983, the Houston Metropolitan Transit Authority investigated the Site for potential use and found evidence of creosote in the subsurface. The site was referred to the Texas Department of Water Resources (TDWR) for further investigation and, in 1984, recommended to EPA for placement on the National Priorities List (NPL). The Site was added to the final List on June 10, 1986, for further assessment and remedial action.

The two capped areas of contaminated soils, associated with these operations, are shown on the second Site Map. Areas of ground water contamination have been defined for both the shallow and intermediate aquifers, as indicated on the first Site Map.

## Health Considerations

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Primary risk from the site stems from the carcinogenic polynuclear aromatic hydrocarbons (cPAHs), volatile organics, and metal salts associated with creosote and the wood preservation process. These constituents are found both in the contaminated soils and in ground water, as DNAPL and dissolved-phase constituents.

## Record of Decision (ROD)

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The Record of Decision for the Site was signed by EPA on September 26, 1988, and remedies selected for surface soils (0-6"), surficial soils (0-6' below ground surface), and ground water:

Soils: The ROD recommended soil flushing and washing to reach a risk-based remedial goal of 700 parts per million for carcinogenic PAHs, based on ingestion and direct contact. A subsequent pilot study demonstrated that the contaminants would not reduce to the required levels. Beazer East, Inc. submitted a proposal to contain contaminated soils under a protective cap. On June 26, 1997, the Regional

Administrator signed an Amended ROD to allow contaminants to be sealed and contained under a six-inch thick reinforced concrete cap. Two areas of contaminated soils were capped, with a remedial design that optimized reuse of the property as parking space for trucks. Construction was completed in June 2000.

Ground Water: The ROD required the extraction and treatment of contaminated ground water, including the recovery and treatment of a (DNAPL) to the maximum extent practicable. Remaining contamination would then be allowed to naturally attenuate to background levels. The decision document also allowed biological treatment to reach remedial goals.

In 1995, EPA agreed to reconsider the remedial goals outlined in the 1988 ROD against other options, including monitored natural attenuation or a Technical Impracticability (TI) waiver. Beazer East, Inc. has since submitted additional ground water information to support re-evaluation of the remedy and discussion of an appropriate ground water monitoring network. Any new remedial options not specified in the 1988 ROD will be considered through the remedy decision process as a ROD Amendment or Explanation of Significant Differences. See the "Current Status" section for an update on this process.

The second Five-Year Review for the South Cavalcade Superfund Site, signed in September 2007, evaluated the effectiveness of the current remedies in place. In summary, the review found the remedy implemented for contaminated soils to be protective of human health and the environment. The ground water remedy was also considered protective in the short-term; long-term protectiveness depends on the demonstration that the DNAPL and plume are not migrating vertically and horizontally. The second Five-Year Review for the South Cavalcade Superfund Site is available at [http://www.epa.gov/earth1r6/6sf/pdf/files/scavalcade\\_5\\_year\\_review.pdf](http://www.epa.gov/earth1r6/6sf/pdf/files/scavalcade_5_year_review.pdf).

## Site Contacts

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