



EPA

LORENTZ BARREL & DRUM SUPERFUND SITE



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U.S. EPA Completes Second Five-Year Review of Site

The United States Environmental Protection Agency (EPA) completed the second five-year review of the Lorentz Barrel & Drum Superfund Site in San Jose, California. The EPA conducts these reviews to ensure that the remedy at a site remains protective of human health and the environment. From April through September 2005, the EPA conducted a review of each component of the sitewide remedy. This fact sheet explains the five-year review process and describes the results of this second five-year review for the Lorentz Barrel & Drum Superfund Site.

What is the Five-Year Review?

The Superfund Law requires that if a cleanup leaves contaminants at a Superfund site above levels that allow for unlimited use and unrestricted exposure to the site, the remedial action must be reviewed every five years.

The purpose of the review is to make sure the cleanup remedy continues to protect human health and the environment. Three key questions are used to determine whether the remedy is protective:

- **Is the remedy functioning as intended in the remedy selection documents (Records of Decision, Explanation of Significant Differences, etc.)?**
- **Are the assumptions used at the time of remedy selection still valid?**
- **Has any new information come to light that could affect the protectiveness of the remedy?**

In order to answer these questions, a comprehensive review of site data and key documents is performed. Interviews, a site inspection, and a review of all remedy components are also conducted. The methods, findings and conclusions of the review are documented in a five-year review report.

Where is the Site Located?

The Lorentz Barrel & Drum Site is located at 1515 S. Tenth Street in San Jose, California. The Site includes 5.25 acres currently owned by 10th Street Land Management, 1.47 acres owned by The Newark Group, Inc., an adjacent city sidewalk, and a shallow groundwater plume extending north of the 10th Street and Newark properties. (see Figures 1 and 3)

The area north of the properties includes sports fields and structures owned by San Jose State University (SJSU). The properties are zoned for commercial and industrial use, as is most of the area within a one-mile radius.

What is the History of the Site?

From 1947 to 1987, a drum recycling facility operated at the site. The former drum recycling facility accepted over 2 million drums from more than 3,000 parties.

The facility emptied, cleaned, resealed, repainted and resold the used drums. The drums typically contained residues of organic solvents, acids, oxidizers, and caustic chemicals. In 1987, the Lorentz Barrel & Drum

facility was closed by a court order because volatile organic compounds (VOCs) from its operations had contaminated local groundwater.

What Were the Environmental Impacts of the Drum Recycling Operation?

The soil and the shallow groundwater beneath the property was contaminated with drum residues and chemicals used in the recycling process.

EPA has detected a variety of contaminants in the soil, including: volatile and semi-volatile organic compounds, pesticides, herbicides, polychlorinated biphenyls (PCBs), and heavy metals. The EPA has also found VOCs in the shallow groundwater.

What Has Been Done to Clean Up the Site?

In late 1987 and early 1988, EPA and the California Department of Health Services (now the California Department of Toxic Substances Control) conducted emergency response actions at the site which included the removal of contaminated soils, drums and liquids. In December 1987, EPA

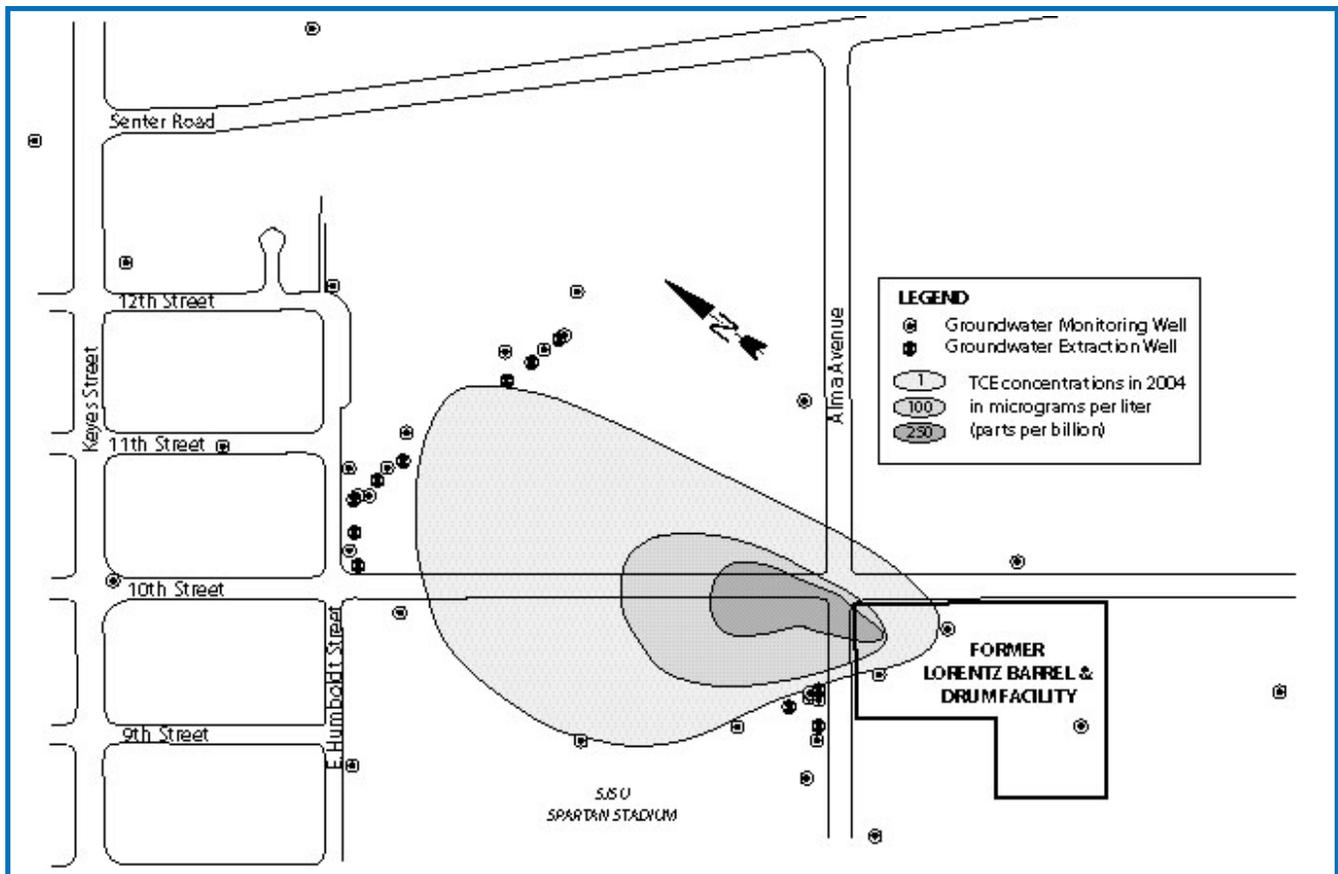


Figure 3: TCE plume in parts per million

The next five-year review will be completed in September 2010, by which time the improvements described below should be in place.

What are the Recommendations for Improving the Remedy?

The second five-year review suggested several improvements to enhance the long term protectiveness of the remedy:

- Current owners in the area of the SJSU property or sidewalk adjacent to the 10th Street and Newark properties should incorporate procedures to ensure construction-worker safety during intrusive activities (i.e. subsurface excavation for utility work) involving potential exposure to site-contaminated soils or groundwater.
- Future building development in areas overlying the shallow groundwater plume in the SJSU property should incorporate procedures to evaluate the vapor intrusion pathway prior to construction.
- Institutional controls need to be evaluated and a respective monitoring plan should be developed. While restrictive land use covenants exist for the 10th Street and Newark properties, additional institutional controls may be required.

The second five-year review also suggested technological improvements to the current remedy, and steps to help complete, or “close out”, the site remediation. These improvements include:

- The only monitoring well in the Zone D aquifer (which is 230 to 1,000 feet below ground surface) was removed in 1998. The need for a replacement monitoring well in the Zone D aquifer must be evaluated to determine whether current monitoring wells in Zone C are adequate.
- Improving the efficiency and cost effectiveness of the current soil vapor extraction system.
- Completing a “monitored natural attenuation” assessment to determine if the natural attenuation process will prevent low concentrations of contaminants down gradient of the groundwater extraction well system from reaching Coyote Creek.
- Improving the efficiency and cost effectiveness of the current groundwater extraction system.
- Improving soil sampling techniques for measuring volatile organic compounds in the soil.
- Determining if the SVE has met the soils cleanup criteria.
- Clarifying remediation goals for the shallow groundwater.

U.S. EPA COMPLETES SECOND FIVE-YEAR REVIEW OF SITE

For More Information

If you would like more information or have questions about activities at the Lorentz Barrel & Drum Superfund Site, please contact:

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The second five-year review and other site-related documents are available for public review at the following two locations:



Superfund Records Center

U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 536-2000

Martin Luther King, Jr. Library

150 E. San Fernando St.
San José, CA 95112
(408) 808-2000

Lorentz Barrel & Drum Superfund Site Website

- 1) Go to:
<http://www.epa.gov/region09/waste/sfund/superfundsites.html>
- 2) Click on: **Site Overviews**
- 3) Click on: **LORENTZ BARREL & DRUM CO.**



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