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# Bandera Road Ground Water Plume Superfund Site: *January 2012 Information Update*

## About this Document

*At the request of the Bandera Road Community Advisory Group (CAG), this document provides information to Leon Valley residents and workers on the status of the Bandera Road Ground Water Plume (Bandera Road) Superfund site. This information update is the seventh in a series of updates that are prepared approximately every six months.*

### Inside this Information Update

- Overview of Ongoing Monitoring and Studies
- Overview of EPA Proposed Site Cleanup Plan
- New Historical Wells Search Initiative
- Revised Toxicity Values for TCE

*The Bandera Road CAG includes individuals and organizational representatives from the Leon Valley area. The CAG was formed in 2007 to provide input to the U.S. Environmental Protection Agency (EPA) on issues regarding the site's investigation and cleanup. The Bandera Road CAG meets quarterly. Meetings are open to the public. Learn more about CAG activities here: [www.leonvalleytexas.gov/EPA.htm](http://www.leonvalleytexas.gov/EPA.htm).*

### Upcoming CAG Meetings for 2012

- CAG meetings are planned for the following Thursdays: January 19, April 19, and July 19, 2012.
- Meetings begin at 5:30 p.m. and are typically held at the Leon Valley Conference Center.

## Site Background

The Bandera Road site is centered between Poss Road and Grissom Road, southwest of Bandera Road. The site consists of ground water and soil contaminated with chlorinated solvents, tetrachloroethene (PCE), trichloroethene (TCE) and cis-1,2-dichloroethene (cis-1,2-DCE or DCE), which are commonly referred to as volatile organic compounds (VOCs). PCE is the most frequently detected compound at the site. The current estimated site area is approximately one mile long by one-half mile wide. In 2007, EPA placed the site on the National Priorities List (NPL).

### Key Contact Information:

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## Site Update (August 2011 – January 2012)

EPA continues to monitor the two Leon Valley public water supply wells located within one mile of the center of the site. No VOCs were detected in the public water supply wells in January, February, March, or July 2011. The most recent sampling results are from the water samples collected on October 17, 2011. No VOCs were detected in the original samples collected from the wells; trace levels of PCE were estimated by the laboratory in a duplicate sample collected from one of the wells. The trace levels were far below EPA's Maximum Contaminant Level (MCL) of 5.0 parts per billion (or micrograms per liter ( $\mu\text{g/L}$ )).



*Municipal water well sampling (Source: EPA)*

On July 18, 2011, EPA issued a Proposed Plan to guide the long-term cleanup of the site. The public comment period was extended until October, 15, 2011. EPA also hosted a public meeting at the Leon Valley Conference Center on July 19, 2011 to discuss the plan and gather additional public input. EPA is preparing a responsiveness summary based upon the comments received.

Since the release of the Proposed Plan, EPA has approved more stringent toxicity values associated with one of the contaminants of concern – TCE. In response, EPA Region 6 is undertaking additional analysis to determine how these changes will impact risk-based numbers included in the Proposed Plan.

In collaboration with the Edwards Aquifer Authority, EPA is conducting a new historical wells search initiative. These activities are discussed in more detail on the following pages of this information update.

### Information Update Mailing List

If you are not already receiving a mailed copy of the Information Update but would like to do so, contact:

Phyllis June Hoey  
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## Recent and Upcoming EPA Activities

### Continued Ground Water Monitoring to Ensure Public Safety

EPA continues to collect samples regularly from both public and private wells and analyze them for contaminants. EPA has sampled the Leon Valley municipal water supply wells since September 2008. No VOCs were detected in the public water supply wells in January, February, March, or July 2011. The most recent sampling results are from the water samples collected on October 17, 2011. No VOCs were detected in the original samples collected from the wells; trace levels of PCE were estimated by the laboratory in a duplicate sample collected from one of the wells. The trace levels were far below EPA's MCL of 5.0 µg/L and are common for urban areas located above ground water. Sampling results from some private wells located near source areas included in EPA's ground water monitoring network continue to show concentration levels of PCE and TCE that exceed EPA's federal drinking water standards. Residences previously served by wells contaminated at levels above federal drinking water standards have been connected to the public water supply. The public water supply wells are scheduled to be sampled again in January 2012.

### On-Site Bioremediation Testing


Bioremediation is the use of living organisms to break down contamination. In January 2011, EPA began an on-site bioremediation study. EPA applied a specialized material to well DW-404 near Pilgrim Cleaners that added hydrogen to the ground water to increase anaerobic microbes; these microbes naturally degrade contaminants to ethane, ethene and other harmless end products. Between January 2011 and July 2011, the level of PCE in well DW-404 fell from 1,570 µg/L to 43 µg/L and the level of TCE declined from 37.9 µg/L to a level that could not be detected. Levels of cis-1,2,-DCE have not declined; the injection of additional material may be necessary to facilitate the breakdown of cis-1,2,-DCE.

### EPA Proposed Plan Released for Public Comment

On July 18, 2011, EPA issued the site's Proposed Plan to gather public input. The Proposed Plan presents EPA's preliminary recommendation of how to best address contamination at a site (i.e., the Preferred Alternative). The Proposed Plan also presents other cleanup alternatives that were considered and explains why EPA recommends the Preferred Alternative. EPA solicited public comment on the Proposed Plan until October 15, 2011. EPA and support agencies (in this case, the Texas Commission on Environmental Quality, or TCEQ) may select a remedy other than the Preferred Alternative based on public comment. The final decision regarding the selected remedy will be documented in the Record of Decision (ROD) after EPA has considered all comments from both TCEQ and the public. EPA is preparing a responsiveness summary based upon the comments received. *Please contact EPA's Remedial Project Manager for copies of the Proposed Plan.*

### Overview of EPA's Preferred Cleanup Approaches

EPA considers two areas along Bandera Road to be the primary sources of contamination: the former location of a dry cleaning facility (Source Area 1), and the area by an active dry cleaning facility (Source Area 2). As work progresses, additional areas may be identified and/or investigated as appropriate. EPA's Preferred Alternative addresses contaminated vapor, soil, bedrock and ground water.



**Bandera Road Ground Water  
Plume Superfund Site**

United States Environmental Protection Agency - Region 8 - July 2011

**EPA ANNOUNCES  
PROPOSED PLAN**

**Introduction**

This Proposed Plan identifies the Preferred Alternative for cleaning up contaminated vapor, soil and ground water at the Bandera Road Ground Water Plume Site and provides the rationale for this preference. In addition, this Plan includes summaries of other cleanup alternatives evaluated for use at this site. This document is issued by the U.S. Environmental Protection Agency (EPA), the lead agency, and the Texas Commission on Environmental Quality (TCEQ), the support agency. EPA, in consultation with the TCEQ, may modify the Preferred Alternative or select another response action presented in this Plan based on new information or public comment. Therefore, the public is encouraged to review and comment on all the alternatives presented in this Proposed Plan.

EPA is issuing the Proposed Plan as part of its public participation responsibilities under Section 304-604(D) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This Proposed Plan summarizes information that can be found in greater detail in the Remedial Investigation (RI) and Feasibility Study (FS) reports and other documents contained in the Administrative Record file for this site. EPA and the State encourage the public to review these documents to gain a more comprehensive understanding of the site and Superfund activities that have been conducted at the site.

**OPPORTUNITIES  
FOR COMMUNITY  
INVOLVEMENT**

**PUBLIC COMMENT PERIOD**  
July 18, 2011 – August 16, 2011

During the public comment period, you are encouraged to comment on this Proposed Plan. Comments may be submitted verbally or in writing during the community meeting, or written comments may be sent to:

Chris Villarreal (657-RA)  
U.S. EPA  
1445 Ross Avenue, Suite 1309  
Dallas, Texas 75202-2733

Written comments should be postmarked no later than August 16, 2011.

**COMMUNITY MEETING**  
July 21, 2011 at 5:00 p.m.

You are encouraged to attend an upcoming meeting regarding the Proposed Plan for the site. The meeting will be held at:

Leon Valley Community Center  
6427 Evers Road  
Leon Valley, Texas 78338

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EPA's Proposed Plan for the Bandera Road site.



Source Areas 1 and 2 identified for cleanup actions in EPA's Proposed Plan. (Source: EPA)

EPA's preferred approach for addressing contaminated vapor in Building 1, in Source Area 1, is to block harmful vapors entering into the building through cracks in the concrete foundation by applying a protective impermeable barrier over the foundation. Emissions will then be routed away from the building through vapor vents and discharged above the roof line. Indoor air will be sampled periodically to verify effectiveness.

EPA's preferred approach for addressing contaminated surface soil, subsurface soil and underlying bedrock located beneath Building 1, in Source Area 1, is to remove or reduce concentrations of volatile compounds (i.e., PCE and TCE) by applying a vacuum to create air flow in the subsurface. Contaminants stuck to soil particles will evaporate and be swept away to extraction wells. This process is referred to as soil vapor extraction, or SVE. EPA's preferred approach for addressing contaminated surface and subsurface soil within Source Area 2 is to excavate the contaminated material and dispose of it off-site. EPA's preferred approach for addressing contaminated bedrock within Source Area 2 is SVE.

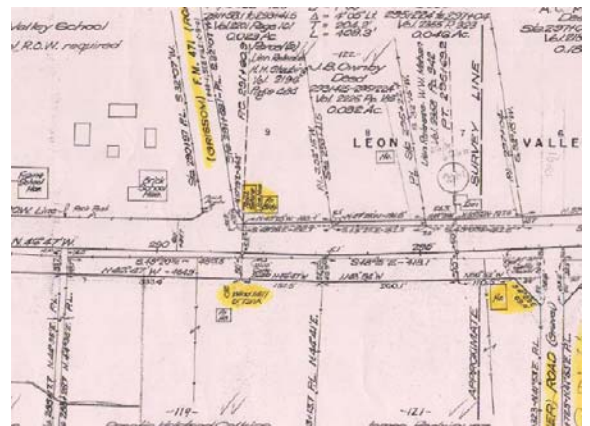
EPA's preferred approach for addressing contaminated ground water includes injecting specialized material into the Austin Chalk Aquifer to promote the natural breakdown of chlorinated solvents. Under this alternative, approximately 12 injection wells for each of the two source areas would be installed. The wells would be injected twice, 18 months apart. In addition, institutional and engineering controls would be applied to ensure that people will not come into contact with contaminated ground water. Engineering controls are instruments such as fencing or signs that are used to minimize access to contaminated areas or areas that may pose a physical hazard. Institutional controls are administrative and legal instruments that place restrictions on the use or development of land or ground water (or both) within a defined area. Under EPA's preferred approach, additional abandoned or improperly constructed wells will be properly plugged and abandoned; and any identified private well users impacted by contaminated ground water may be connected to the municipal water supply.

### New Historical Wells Search Initiative

Improperly constructed or abandoned wells in Leon Valley have the potential to spread site-related contamination in ground water. Since the site was finalized on the NPL in 2007, EPA has worked with property owners and government agencies to properly plug and abandon such wells. Private wells in Leon Valley can be difficult to locate; some were constructed over 50 years ago and are covered with dense vegetation, parking areas or buildings. In collaboration with the Edwards Aquifer Authority (EAA), EPA is conducting a new historical wells search initiative. Old right-of-way maps and historical photos will be used along with a surveying contractor to identify potential well locations. EAA will then use a surface geophysics contractor to search for buried well casings. EAA will then coordinate with EPA, landowners, and utility companies to dig in these areas in order to expose well casings. EAA is currently discussing approaches to fund the proper plugging and abandonment of any identified wells with EPA.

### Revised Toxicity Values for TCE

Toxicity is the degree to which a substance or mixture of substances can harm humans or animals. On September 28, 2011, EPA approved the use of more stringent toxicity values associated with one of the site's contaminants of concern – TCE. In response, EPA Region 6 is undertaking additional analysis to determine how these changes will impact risk-based numbers included in the site's Proposed Plan. Although the revised risk-based results may indicate a higher risk associated with exposure to TCE than previously calculated, the primary source of the health risk associated with site-related contamination is from PCE. The toxicity values for PCE remain the same. EPA's press release announcing the revised TCE toxicity values along with related information are available here: <http://www.epa.gov/IRIS/>. The revised TCE toxicity values do not impact the federal drinking water standard for TCE, but EPA is considering lowering the standard for PCE and TCE as part of a separate regulatory review process. Additional information is available here: <http://water.epa.gov/lawsregs/rulesregs/regulatingcontaminants/sixyearreview/index.cfm>.



Historical Leon Valley right-of-way map that will be used by EAA and EPA to identify old improperly plugged and abandoned wells. (Source: EAA and EPA)

In September 2011, EPA announced the release of revised toxicity values for TCE (Source: EAA and EPA)

## Phases of the Superfund Cleanup Process

1. Preliminary Assessment and Site Inspection (PA/SI)
2. National Priorities List (NPL) Listing
3. Remedial Investigation and Feasibility Study (RI/FS)
4. Proposed Plan – Record of Decision (ROD)
5. Remedial Design/Remedial Action
6. Construction Completion (CC)
7. Post-Construction Completion
8. NPL Deletion

## Current Status of the Bandera Road Superfund Site

In July 2011, EPA issued the site's Proposed Plan. The Plan describes the cleanup approaches that could be used to remediate the site's contamination and identifies EPA's preferred cleanup approach for the site. After EPA gathers public comments on the Proposed Plan, EPA will publish a ROD outlining the site's final cleanup plan.

During the subsequent remedial design phase, EPA will develop a final design to guide the implementation of the site's cleanup. The remedial design includes a series of documents, drawings, specifications and engineering reports. These materials specify the steps to be taken during the remedial action phase to achieve goals outlined in the ROD, clean up the site, and ultimately enable the site's deletion from the NPL.

