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Bandera Road Ground Water Plume Superfund Site: *July 2010 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 fourth in a series of updates that are prepared approximately every six months.

Inside this Information Update

- Recent and Upcoming EPA Activities
- Overview of the Site's On-Going Reuse Assessment
- Overview of State Dry Cleaner Regulatory and Remediation Programs

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. Meeting notices are posted at the City of Leon Valley City Hall at 6400 El Verde Road. Meeting notices are also presented in the City of Leon Valley's community newsletter "The Lion's Roar" and on the City's web page at www.leonvalleytexas.gov by clicking on the link titled "City Calendar."

Quick Notes

- The City's Superfund Site Web Page has recently been revised and updated. View the site at: <http://www.leonvalleytexas.gov/EPA.htm>
- The next Bandera Road CAG meeting is scheduled for July 22, 5:30 p.m., at the Leon Valley Conference Center.

Site Background

The Bandera Road Superfund site area is currently estimated to be approximately one mile long by one half-mile wide. The site is centered between Poss Road and Grissom Road, southwest of Bandera Road. The site consists of ground water contaminated with chlorinated solvents tetrachloroethene (PCE), trichloroethene (TCE), and cis-1,2-dichloroethene (cis-1,2-DCE or DCE), commonly referred to as Volatile Organic Compounds (VOCs). PCE is the most frequently detected compound at the site. In 2007, the site was placed on EPA's National Priorities List, qualifying the site for long-term cleanup under the Superfund program.

Site Update (January – June 2010)

EPA continues to monitor the two Leon Valley public water supply wells located within one mile of the center of the site. The most recent sampling results are from the water samples collected on May 5, 2010. No compounds have been detected in sample results collected between January and May. The most recent sampling of the Leon Valley public water supply wells occurred on June 7, 2010. The validated sample results are routinely provided by the laboratory to EPA within 30 to 40 days of sample collection.

EPA continues to monitor ground water contamination levels in private wells included as part of its ground water monitoring network. EPA installed seven new ground water monitoring wells in April and May. EPA is using its ground water well network to assess ground water flow and related ground water characteristics to better understand the nature of the ground water contamination and potential cleanup options.

EPA is continuing its investigation to identify specific sources of ground water contamination. A contaminant source near the Savings Square Shopping Center was confirmed in April 2009. EPA is using passive soil gas sampling to evaluate other potential nearby source locations.

EPA is conducting on-going vapor intrusion evaluation work in the areas where vapor intrusion issues had previously been identified and mitigation systems are currently operating.

EPA is nearing completion of a reuse assessment process to help inform EPA's Remedial Investigation/Feasibility Study.

EPA anticipates completing the cleanup plan for the site by February 2011. These as well as additional activities are discussed in more detail in this information update.

For More Information about the Bandera Road Superfund Site, Please Contact:

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Recent and Upcoming EPA Activities

Continued Ground Water Monitoring to Ensure Public Safety

EPA continues to regularly collect samples from both public and private wells and analyze them for contaminants. EPA has sampled the Leon Valley municipal water supply wells on a monthly basis since September 2008. The most recent sampling results are from the water samples collected on May 5, 2010. No compounds have been detected in sample results collected between January and May. EPA's most recent sampling event took place the week of June 7, 2010. Sampling results from some private wells located near source areas included in EPA's ground water monitoring network continue to show concentration levels for PCE and/or TCE that exceed EPA's Maximum Contaminant Levels of 5.0 parts per billion (or $\mu\text{g/L}$). Residences previously served by wells contaminated at levels above federal drinking water standards have been connected to a public water supply. Edwards Aquifer wells which were found to be impacted by PCE contamination have been properly plugged and abandoned.

New Monitor Well Installation

In October 2009, EPA conducted a geophysical survey in a 162-acre area around the Grissom and Bandera Road intersection to identify, map and model how ground water is flowing in the Austin Chalk aquifer. Results from this work helped identify locations for new ground water monitoring wells in the Austin Chalk aquifer.

In April and May, EPA successfully installed seven new monitoring wells. These include two wells at the Savings Square Shopping Center; one just north of Bandera Road across from El Verde Road; one at the Northside Learning Center; one located south of Grissom Road near Poss Road; one between Grissom and El Verde Road; and one near El Verde and Jeff Loop Road.

During drilling, EPA contractors added water to the boreholes to keep dust from leaving the borehole. Air monitoring was performed to ensure that dust and vapors were within safe levels inside the work zone. Now complete, these wells will be used to evaluate the extent of contamination, be used as part of the planned dye tracer study, and be used to evaluate potential cleanup alternatives, such as soil vapor extraction and bio-stimulation. Soil vapor extraction removes harmful chemicals, in the form of vapors, from the soil above the water table. You may read more about soil vapor extraction here: <http://www.clu-in.org/download/citizens/citsve.pdf>. Bio-stimulation typically involves adding nutrients to help natural bacteria destroy harmful chemicals in the soil.

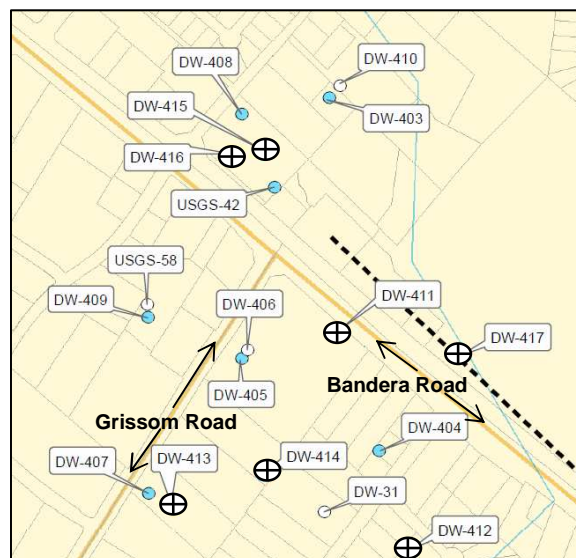


Figure 1. New EPA Ground Water Monitoring Well Locations. EPA contractors installed seven new wells (DW-411 thru DW-417) in April and May, 2010. (Source: EPA)

Dye Tracer Study

The Dye Tracer Study is now scheduled for summer 2010. The Dye Tracer Study will involve adding a nontoxic fluorescence dye into the Austin Chalk ground water to determine how long the dye takes to move between wells. All dyes used are approved by the Food and Drug Administration and are used as colorants in medical procedures, drugs and/or cosmetics. With assistance from the Edwards Aquifer Authority, the Dye Tracer Study may help EPA measure ground water flow velocity and identify ground water flow directions, hydraulic connections and the pattern of water movement.

Continued Soil Sampling

EPA is working to identify additional source areas (areas where chemicals have been released) in surface and subsurface soils that may be contributing to the ground water contamination. In April and June 2010, EPA collected additional soil gas samples from sources, including commercial areas near Grissom Road and Poss Road.

Ongoing Soil Vapor Mitigation

EPA continues to monitor and review the effectiveness of exterior sub-slab vapor mitigation systems installed last year at the Savings Square Shopping Center as well as related vapor mitigation efforts. As a result of mitigation systems and related efforts, such as sealing utility holes in the slab of the affected offices, indoor air concentrations of harmful vapors have been reduced by 94 percent.

Site Reuse Assessment

Last year, EPA started a reuse assessment process for the Bandera Road Superfund site. Studying reuse options for the site will help EPA in its evaluation of cleanup strategies. As a first step, the assessment considered reasonable future land uses in Leon Valley and how Superfund site cleanup might impact these uses. Preliminary results suggest that 1) the cleanup will likely be located at the contamination source areas and will likely have little effect on future development; 2) new construction over the contaminant source areas may require attention to slab design/construction to address possible vapor intrusion issues; and 3) reuse in areas beyond the contamination source areas is more likely to be impacted by Superfund stigma than by site cleanup efforts.

As a second step, the assessment identified short-term revitalization strategies that the city can use in response to potential local concerns about the Superfund site. The overall strategy calls for mixing green infrastructure into the city's current and future road, building and stormwater management projects by developing a greenway, green streets and green links. Green infrastructure is a term that describes the interconnected natural systems and ecological processes that provide clean water, air quality and wildlife habitat. This green infrastructure strategy supports the city's land use goals, which call for protecting the city's ground water from contamination, guiding and supporting development along Bandera Road, and promoting sustainability. To learn more about the reuse assessment effort, contact EPA Region 6 Superfund Redevelopment Coordinator Casey Luckett Snyder (214-665-7393).

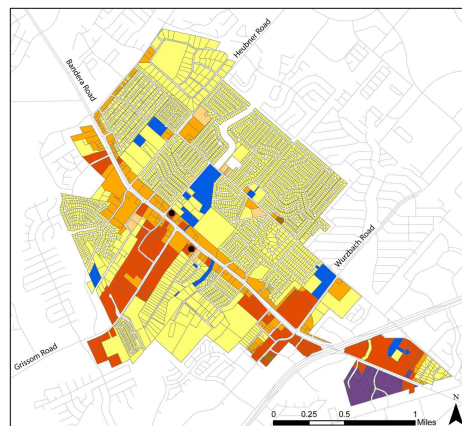


Figure 2. Leon Valley Zoning - Considered as Part of EPA's Site Reuse Assessment.

State of Texas Dry Cleaning Regulatory and Remediation Programs

Texas Commission on Environmental Quality representatives gave presentations at the April 22 Bandera Road Superfund Site CAG meeting to discuss the rules and regulations for the operation of dry cleaning facilities in the State of Texas as well as the state's dry cleaner remediation program. State rules require the registration and payment of the appropriate fee for all types of dry cleaning facilities. Rules also specify construction standards for both new and existing facilities, require compliance with air emission standards, and specify how solvent wastes must be managed and disposed of properly. Additional standards apply to facilities using PCE. TCEQ's Small Business and Local Government Assistance program provides assistance to all types of dry cleaning facilities and solvent program distributors to ensure compliance with all dry cleaner regulations and guidance in best management practices. Learn more about this program here, http://www.tceq.state.tx.us/permitting/registration/dry_cleaners, or by calling TCEQ's Laressa Wong (210-490-3096).

The state's dry cleaner remediation program establishes a priority list of dry cleaner sites and administers the Dry Cleaning Remediation Fund to assist with cleanup of contamination caused by dry cleaning solvents. As of February 2010, 202 dry cleaning facilities had submitted applications to participate in the dry cleaner remediation program, 157 dry cleaning facilities are currently in the assessment or cleanup phase, and 22 have met Texas Risk Reduction Program rule standards. Learn more about this program here, http://www.tceq.state.tx.us/remediation/dry_cleaners/, or by calling the program's hotline (512-239-1011).

Upcoming Proposed Plan and the Public Comment Process

In late summer 2010, EPA expects to issue the site's draft Remedial Investigation/Feasibility Study (RI/FS). The document will summarize the results of EPA's site investigation activities underway since 2007, document the human and ecological health threats associated with the site, and identify cleanup objectives and options. In the fall, EPA anticipates issuing the site's Proposed Plan, which will identify EPA's preferred approach for site cleanup.

The public will have an opportunity to comment on EPA's preferred cleanup approach. EPA will provide a notice of availability of the Proposed Plan in the local newspaper. EPA will also host a public meeting to discuss the Proposed Plan. The Proposed Plan will be made available for public inspection in the administrative record file, to be located at the Leon Valley Public Library on 6425 Evers Road. The Proposed Plan will also be available for download from EPA's website. A link to the Proposed Plan will be made available on the City of Leon Valley Superfund website. After considering public input, EPA will finalize its cleanup plan in the site's Record of Decision (ROD). EPA anticipates issuing the ROD in early 2011.

Phases of the Superfund Cleanup Process

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

What Cleanup Phase Is the Bandera Road Superfund Site in Now?

The Bandera Road site is currently in the Remedial Investigation /Feasibility Study (RI/FS) phase of the Superfund cleanup process. The RI/FS will help inform EPA's Proposed Plan for the site. When completed, the Plan will describe the various cleanup options that could potentially be used to remediate site contamination and identify EPA's preferred cleanup option(s) for the site. After EPA gathers public comment on the Proposed Plan, EPA will publish a Record of Decision (ROD), which describes how EPA plans to clean up the site. During the subsequent remedial design (RD) phase, EPA will develop a final design to guide the implementation of the cleanup option(s) selected in the ROD. The RD includes a series of documents, drawings, specifications and engineering reports that specify the steps to be taken during the remedial action (RA) phase to achieve the goals outlined in the ROD, remediate the site, and ultimately enable the site's deletion from the NPL. The timeline below illustrates major past, current and planned Superfund activities for the Bandera Road site.

