

**Griggs & Walnut Ground Water  
Plume Site  
(Dona Ana County)  
New Mexico**



**EPA REGION 6  
CONGRESSIONAL  
DISTRICT 02**

**Contact: Petra Sanchez  
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**EPA ID# NMD0002271286  
Site ID: 0605116**

**Updated: February 2012**

**Background**

The Griggs & Walnut Groundwater Plume site is centered near the intersection of Griggs Avenue and Walnut Street within the city of Las Cruces, Dona Ana County, New Mexico. The area is approximately 2,500 feet by 4,000 feet. The plume extends vertically from the water table to the depth of the water supply wells.

The contaminant of concern is Perchloroethylene, commonly referred to as PCE or perc.

The City municipal water supply utilizes a total of 28 wells to provide drinking water to approximately 83,000 residents in the community.

Dissolved PCE was detected both up-gradient and down-gradient from the affected municipal supply wells. The City's water supply wells are completely within the Santa Fe Group aquifer. Four municipal drinking water supply wells are currently impacted at the Site, although only one, Well No. 18 (out of service since 1996), has demonstrated concentrations of PCE above the MCL.



A Record of Decision (ROD) was signed by EPA on June 19, 2007

The Selected Remedy for the Site is Enhanced Ground Water Extraction with Treatment. The objective of the remedy is to remove PCE from ground water to concentrations at or below the drinking water standard through hydraulic containment and treatment. The remedy will maximize the existing water pumping and delivery infrastructure already in place with some retrofitting prior to ground water conveyance for treatment. The treatment plant will be centrally located somewhere within the plume boundaries and is expected to take minimal space. Once treated, ground water will then be available for delivery into the public water supply.

## Current Status

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- Construction continues as scheduled. The roadway blocks should be lifted, once pavement and restriping of roadways are completed in early February. The two equalization tanks have been erected. The treatment facility is under construction and the tray aeration system is ordered and awaiting delivery. Construction is about 40% complete.
- EPA and DOJ are continuing settlement discussions with the PRPs, including the State and Federal National Guard officials in order to either reach a settlement or take enforcement action in order to continue remedial action activities, once the site is constructed.

- Recently, a conference call with the City, County, NMED, Federal and State legal representatives was held in order to begin negotiations. EPA's goal is to settle all claims in order for the City and County to continue operating the facility, once the remedy is constructed.



- Construction at the Site began on September 6, 2011. Field activities are underway.
- A Public Availability Session was held on September 1, 2011 at the Sierra Middle School by the JSP. The purpose of the Open House was to answer any questions the community may have related to construction of the remedy. The remedy is scheduled to begin September 6, 2011. A Fact Sheet was also mailed out to the community updated them on recent activities. A ground breaking ceremony took place on September 2nd with local, State and Federal authorities and dignitaries. EPA's Superfund Director attended the ceremony, along with EPA staff and management.
- A draft Remedial Action Work Plan was delivered to EPA and NMED on July 18, 2011 for review and comment. The Work Plan document describes work activities and how compliance requirements related to remedy construction will be met. A meeting was held at the City's Utilities Department on July 26 to further discuss the Work Plan and other project related activities.
- The Final UAO and Statement of Work for completing the Remedial Action was signed by EPA on May 17, 2011 by the EPA Superfund Division Director. The final remedy design was reviewed by all members of the technical team and completed the week of May 23rd. The final remedy design is currently its final administrative requirements in preparation of the bidding process for construction of the remedy.
- EPA representatives met with City and County representatives on May 2-3rd 2011 to discuss final agreements on the UAO and SOW. Representatives also met to discuss comments on the Remedial Design at this 2-day meeting in Las Cruces. The Design is scheduled for completion June 2011.
- EPA Regional Administrator met with the City of Las Cruces and Dona Ana County (JSP) representatives and elected officials on March 31, 2011 regarding the UAO issued on February

14, 2011. Meanwhile, EPA staff continue working with the JSP on the Statement of Work for both the Remedial Design and discussions on the Remedial Action.

- EPA issued a Unilateral Administrative Order (UAO) to the City in County on February 14<sup>th</sup>, revising its enforcement instrument from a Consent Decree. Rationale for this change in course of action relates to the fact that the RD and RA enforcement actions were separated at the request of the JSP in the past, however, this course of action proved to be too lengthy in completing in a timely manner. By issuing the UAO, the JSP can work more seamlessly from the remedy design and into remedy



construction under an EPA Order. This action should avoid a stop-gap in work by the JSP and avoids any further delays between design and construction. Work continues on finalizing the Remedial Design by the JSP and Remedial Action negotiations on other actions.

- A public meeting was held on December 15<sup>th</sup> to update the public on the Site and the pending remedy. A public notification process is currently underway and includes development of a factsheet to be mailed to the community with the project radius, and a postcard invitation announcing the public meeting and the objectives for the meeting.
- A meeting with EPA, the Department of Justice, the City of Las Cruces, and Dona Ana County was held on September 1, 2010 to discuss the draft Consent Decree and Statement of Work for the Remedial Action. The Remedial Action negotiations will address the construction and oversight of the remedy through ground water cleanup and the eventual deletion from the National Priorities List. The meeting attendees include EPA legal, technical and management team; NMED, DOJ, the City and County (JSP) and their legal representation.
- EPA met with the City, County, the State and the consulting engineers for the JSP to discuss the preliminary design for the remedy on July 15. The design schedule and timeline for EPA review and comment is on target and progressing well.
- EPA mailed a Special Notice Letter to the City and County with a draft Consent Decree and Statement of Work for performing the Remedial Action during the month of July. A response is expected by the end of August, 2010. EPA is working with the JSP on scheduling a negotiation meeting sometime in early September 2010. Everyone is anxious to expedite the negotiation process in order to avoid delays in progressing toward remedy construction.
- EPA mobilized to field the week of July 12<sup>th</sup> to install three monitoring wells near the former National Guard facility located on Solano and Hadley Avenue. The wells were completed and prepared for sampling using permeable diffusion sampling bags (PDBs). The data has returned from the lab and has been shared with the City and the County for review and comment. Any further actions is pending is still under review.
- EPA is working on a draft Consent Decree and a draft Statement of Work documents with the Department of Justice and New Mexico Environment Department for purposes of negotiating the Remedial Action. The Remedial Action phase will implement the remedy currently under development.

- EPA issued a “friendly Unilateral Order to the City and County to begin the remedial design for the ground water cleanup on October 19, 2009. Other actions include developing and finalizing a Consent Decree for remedial action of the remedy. The city and county continue working cooperatively from their end in maintaining a clean and compliant water supply system.
- The Joint Superfund Project (JSP), comprised of the City and County are continuing to maintain water supply demand that meets the drinking water standards. The JSP is also maintaining control of the plume through hydraulic control, based on information obtained from their ground water model. The ground water model has been a useful tool toward strategically maintaining plume control and water supply.
- A Record of Decision (ROD) was signed by EPA on June 19, 2007. A concurrence letter was signed by the Secretary of Environment was received on the ROD on May 29, 2007. The City and County provided concurrence letters on the proposed remedy on January 22, 2007. EPA will enter into informal discussions with the City and State regarding the remedy and next steps and collectively prepare for final negotiations on the remedy design and implementation tentatively scheduled for late summer 2007. Discussions will also include NMED and the Department of Justice.
- The Proposed Plan identifying the site remedy was released for public review and comment on December 4, 2006. The comment period closed on Jan 5, 2007.
- EPA, through collaboration with the City of Las Cruces, and Dona Ana County, and the New Mexico Environment Department (NMED) hosted a public meeting on December 7, 2006, to discuss the alternative options for the Site identified in the Proposed Plan, along with EPA’s preferred alternative. A community factsheet was mailed to the community on November 16<sup>th</sup> and a newspaper notification was printed in the local newspapers prior to the public meeting, scheduled for December 7<sup>th</sup>, notifying the public about the upcoming meeting and comment period. The public meeting was held at Sierra Middle School, located on Spruce Avenue.
- The Remedial Investigation and Feasibility Study (RI/FS) documents were finalized in November 2006 and will also be made available at the Site repositories during the public comment period. The local repository is located at Branigan Library, located on Picacho Avenue, the State repository is located at the NMED Santa Fe office, and on the 12<sup>th</sup> floor at the EPA office in Dallas, Texas.

## Benefits

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- The affected ground water is contaminated with PCE. The affected area lies in the vicinity of Griggs Avenue and Walnut Street and affects the municipal water supply. As a result of sampling detections, the City of Las Cruces (City) maintains a sampling program, in addition to sampling required by the Safe Drinking Water Act (SDWA). The City also enacted a blending program in order to meet the Drinking Water Standards for PCE.
- There are currently no issues associated with the site hindering re-use or on-site construction. Residential and recreational facilities located on-site are also safe and unrestricted.

## Population Protected and Volume of Contaminated Media

The population for Las Cruces, NM was estimated at 91,865 as of July 1, 2008 according to US Census Bureau, Population Division. 2009-07-01.

The total mass of PCE estimated to be affecting ground water is between 110 and 160 kilograms or between 242 and 357 pounds. The estimated volume is between 1,928 and 2,892 acre-feet (or 6.82 to 9.42 billion gallons.) The approximate volume of ground water with PCE concentrations greater than 5

micrograms that will be remediated is estimated to be between 735 and 1,102 acre-feet or (2.39 to 3.59 billion gallons.)

## National Priorities List (NPL) History

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Site Hazard Ranking System (HRS) Score: 50  
Proposed Date: January 11, 2001  
Final Date: June 14, 2001

**Location:** The Site is located within the City, in an area approximately 2,500 feet by 4,000 feet. The effected wells range from 576 feet to 730 feet deep. The depth to water in the effected wells ranges from 102 to 250 feet.

The center of the Site was taken to be the latitude, halfway between the northern and southern most wells and longitude halfway between the eastern and western most wells. The coordinates of the site are 32 degrees, 19 minutes, 08 seconds latitude and 106 degrees, 45 minutes and 16 seconds longitude.

The current boundary was defined by the New Mexico Environment Department (NMED) using ground-water samples from four municipal supply wells, 16 monitoring wells, and one private well, all meeting observed release criteria. The SDWA Maximum Contaminant Level (MCL) is exceeded in one municipal supply well and 14 monitor wells. The exact extent of the plume has not yet been defined but is estimated to be 1.5 miles by 1.5 miles and lies within the central district of the City. The plume extends vertically from the water table to the depth of the water supply wells. To date, only the dissolved-phase of the contaminant has been detected. No non-aqueous phase liquids (NAPLs) have been found. Dissolved PCE was detected both up-gradient and down-gradient from the affected municipal supply wells. The City supplies water to the community from 28 wells.

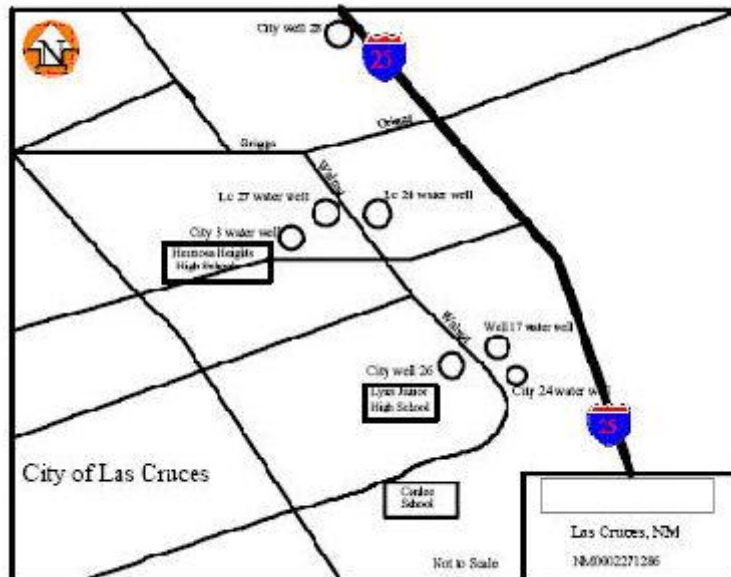
**Population:** The population of Las Cruces is approximately 83,000 individuals.

**Setting:** The City municipal water supply utilizes a total of 28 wells to provide drinking water to approximately 83,000 residents in the community. The City's water supply wells are completely within the Santa Fe Group aquifer. The Santa Fe Group aquifer is a sole source aquifer for the region and produces most of the ground water used in metropolitan and industrial centers, as well as a significant proportion of the ground water used to supplement surface irrigation supplies. The Griggs and Walnut Plume (GWP) is centered near the intersection of Griggs Avenue and Walnut Street. Four municipal drinking water supply wells are currently impacted at the Site, although only one, Well No. 18 (out of service since 1996), has demonstrated concentrations of PCE above the MCL.

**Principal Pollutants:** Perchloroethylene, commonly referred to as PCE or perc.

## Site Map

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## Human Health and Ecological Considerations

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A risk assessment has been completed for the site and determined PCE could pose a current or future risk to human health in the absence of any remedial action, should ground water be ingested.

## Record of Decision

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A Record of Decision was signed by EPA on June 19, 2007

## Site Contacts

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