



SAN GABRIEL VALLEY AREA 3 SUPERFUND SITE

U.S. Environmental Protection Agency • Region 9 • San Francisco, California • April 2010

U.S. EPA Completes Remedial Investigation for San Gabriel Valley Area 3 Superfund Site

The United States Environmental Protection Agency (EPA) has released the final remedial investigation (RI) report on **ground water** contamination for the San Gabriel Valley Area 3 Superfund Site (Area 3). A future feasibility study will evaluate options for ground water cleanup in Area 3.

A remedial investigation (RI) is a process that evaluates contaminants present at a site and assesses risk to human health and the environment. A feasibility study is an analysis of potential alternatives to clean up contamination at a site.

Highlights of This Fact Sheet

- Results from June 2009 RI report for Area 3 page 2
- Next steps in Superfund cleanup process.....pages 2 and 3
- Points of contact page 5
- List of information repositories, where you can review technical information page 5

For further information, go to EPA's Web site:
www.epa.gov/region09/SanGabrielAlhambra

Para ver y descargar esta hoja informativa en español, visite el sitio web de la EPA indicada a continuación.

Para solicitar una copia impresa, llame al número gratuito que se indica a continuación.

要查閱和下載此概要說明的中文版，請造訪下列聯邦環保署網站。請撥下列免費電話索取印刷本。

Để xem và lấy trang thông tin này bằng tiếng Việt, xin vui lòng vào trang mạng của Cơ quan EPA theo địa chỉ dưới đây.

Xin vui lòng gọi số điện thoại miễn phí dưới đây để yêu cầu bản in của thông tin này.

<http://www.epa.gov/region09/SanGabrielAlhambra>

Toll Free Message Line: (800)-231-3075

Please Join Us

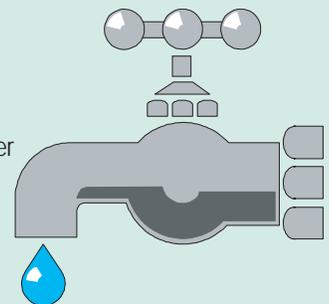
EPA will host two public information sessions:

Wednesday, April 14, 2010
5-7:30 p.m., presentation 6:30-7 p.m.
Alhambra Civic Center Library
101 S. First Street
Alhambra, CA 91801

Saturday, April 17, 2010
2-4:30 p.m., presentation 3:30-4 p.m.
Rosemead Library
8800 Valley Boulevard
Rosemead, CA 91770

What about drinking water?

Ground water underlying Area 3 is used for local water supplies. Water suppliers ensure that water delivered to the public meets federal and state drinking water standards. No untreated ground water in Area 3 is supplied for drinking water.



Terms in bold are defined in the Glossary on page 5.

Site Background

Decades of handling and disposal of chemicals by businesses operating in Area 3 released **volatile organic compounds (VOCs)** into soil and ground water. EPA initiated the Superfund process, including the activities shown in Figure 1 on page 2, after the discovery of ground water contamination. EPA, with the State of California, is working to identify responsible parties. The San Gabriel Basin provides approximately 90 percent of the drinking water in the San Gabriel Valley.

The Area 3 investigation area comprises 19 square miles containing regions of ground water contamination in Los Angeles County, California. Cities within Area 3 include Alhambra, Rosemead, San Gabriel, San Marino, South Pasadena, and Temple City. Figure 2 on page 3 shows the location of Area 3.

Remedial Investigation

The RI lays the foundation for a FS, an analysis that will help EPA to evaluate options and select a remedy for ground water cleanup. Cleanup decisions will consider potential risks the contamination may pose to human health and the environment.

Results of the Remedial Investigation

As illustrated in Figure 3 on page 4, ground water beneath Area 3 shows the presence of contamination. Ground water appears the most adversely affected in the southwestern and northeastern portions of Area 3 as shown on Figure 2 on page 3.

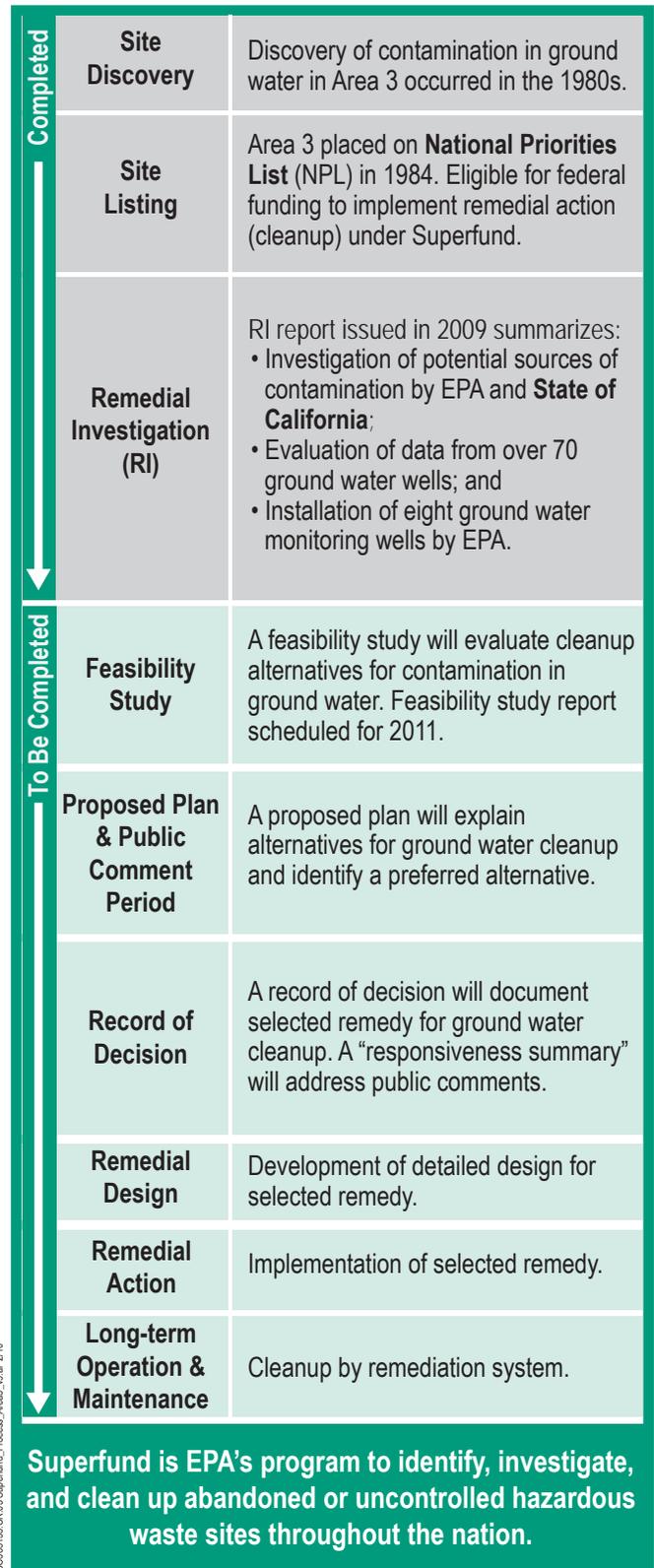
Soils and rocks within the ground water **aquifers** influence the pathways through which contaminants move and spread. Pumping of ground water to meet drinking water needs and irrigation needs may further spread the contamination.

The RI screened ground water in Area 3 for more than 300 **contaminants of potential concern (COPCs)**. Table 1 on page 4 shows seven “Key COPCs”: contaminants detected repeatedly in ground water at levels that exceed the evaluation concentrations (such as drinking water standards). Table 1 on page 4 also includes information on common industrial and commercial uses of the Key COPCs, and on potential health risks.

Trichloroethene (TCE) and tetrachloroethene (PCE) — the most prevalent Key COPCs in Area 3 — appear in the highest concentrations and over the largest regions.

Investigations conducted by the State of California have found ground water contamination below 12 properties. Figure 2 on page 3 shows where in Area 3 concentrations of TCE or PCE or both in ground water exceed the **maximum contaminant levels (MCLs)**.

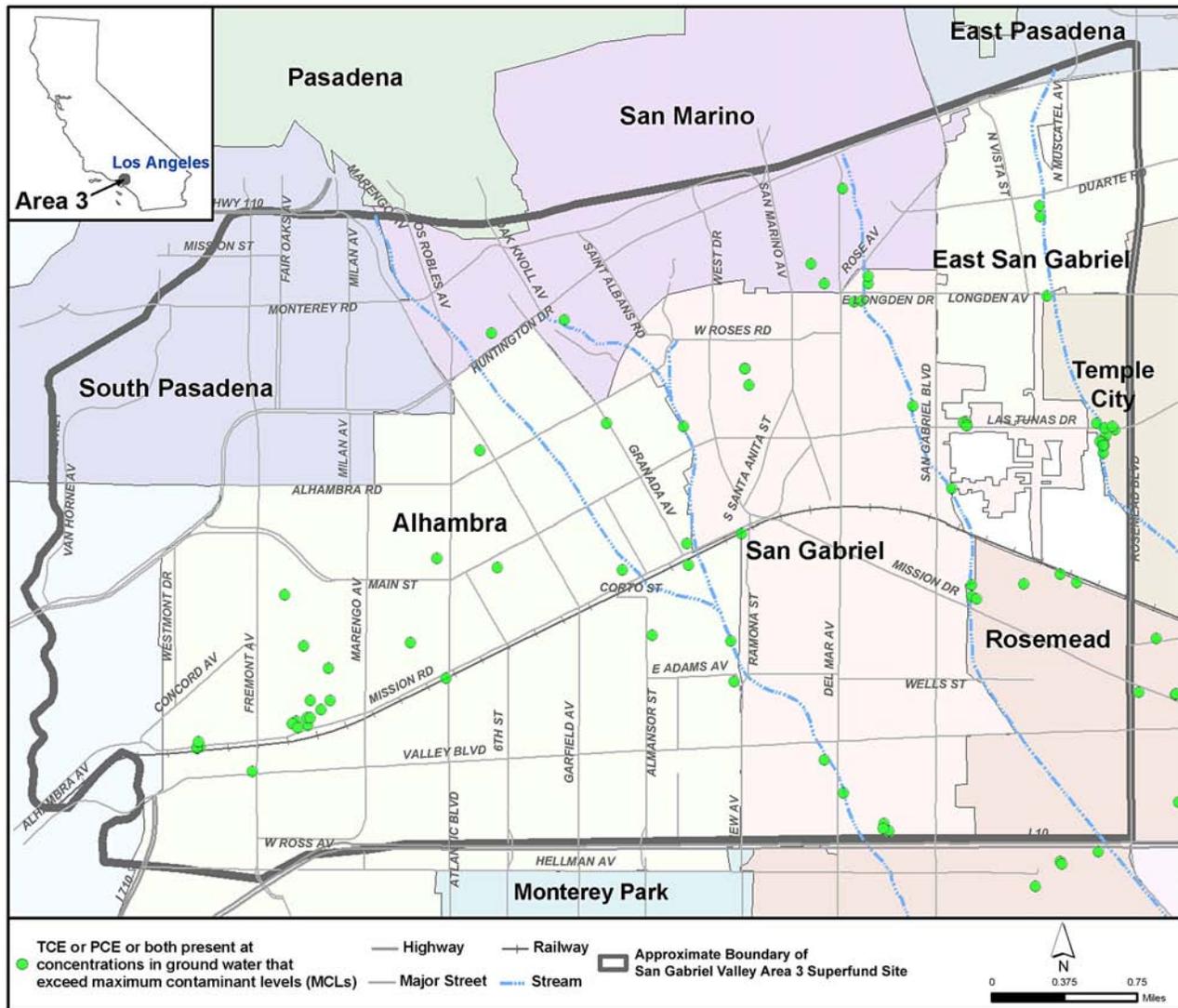
Figure 1. The Superfund Process for San Gabriel Valley Area 3 Superfund Site



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Terms in bold are defined in the Glossary on page 5.

Figure 2. Regions of Ground Water Contamination in the San Gabriel Valley Area 3 Superfund Site



Human Health Risk Assessment

EPA evaluated the potential for harm from possible exposure to contaminants in a study called a **human health risk assessment**. The assessment asked whether the health of residents is potentially at risk without measures to address contamination in ground water. To answer this question, EPA estimated potential health hazards and potential excess cancer risks to residents. The risk assessment indicated that COPCs could pose a health risk if people were to drink untreated water from Area 3.

Ecological Risk Assessment

EPA performed an **ecological risk assessment** to evaluate whether potential exposure to contaminants could harm plants or animals. The assessment focused on contaminants in ground water used for irrigation or stored in ponds. The ecological risk assessment found no significant risks to plants and animals, including amphibians and birds.

Conclusions and Next Steps

The results of the RI indicate a need to address ground water contamination in Area 3 to protect human health. As shown in Figure 1 on page 2, the next step in the Superfund cleanup process is development of a feasibility study to evaluate cleanup options for contaminated ground water.

During the feasibility study process, EPA will compare techniques, costs, and challenges of various cleanup options (called “remedial action alternatives”) and recommend a solution for ground water cleanup in Area 3. The feasibility study will consider the potential effects of cleanup techniques and drinking water pumping on each other. EPA projects completion of the feasibility study report by 2011.

Terms in bold are defined in the Glossary on page 5.

Figure 3. Simplified Illustration of Subsurface - San Gabriel Valley Area 3 Superfund Site

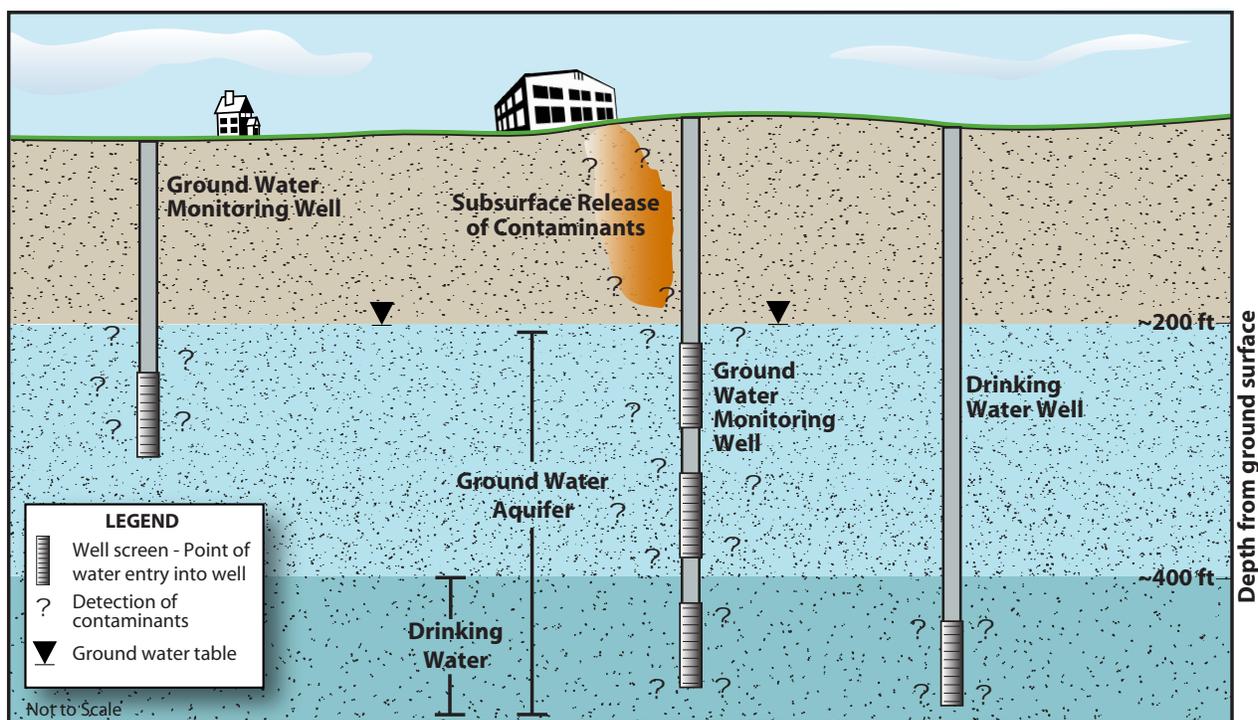


Table 1. Key Contaminants in Ground Water in San Gabriel Valley Area 3 Superfund Site

Key Contaminants of Potential Concern	Common Industrial & Commercial Use	Current Maximum Concentration (µg/L)	Evaluation Concentration ^a (µg/L)	Excess Cancer Risk for Humans ^b
Tetrachloroethene (PCE)	Dry cleaning solution, degreaser	640	5	Yes
Trichloroethene (TCE)	Industrial solvent and degreaser	1,700	5	Yes
cis-1,2-Dichloroethene	Solvent, component in medicines and perfumes	17	6	No
1,2,3-Trichloropropane	Solvent, soil fumigant, sealant	0.23	0.005	Yes
Carbon tetrachloride	Cleaning fluid	1.2	0.5	Yes
Perchlorate	Component in rocket fuel and highway flares	6.8	6	No
Nitrate ^c	Component in agricultural fertilizers	18,500	10,000	No

^a Evaluation concentration is the most conservative guideline.

^b "Yes" indicates that potential exposure to untreated ground water would increase the risk of cancer by more than one additional case of cancer in a population of one million.

^c Nitrate concentrations reported as nitrogen.
µg/L – micrograms per liter

Glossary

aquifer – An underground geological formation, or group of formations, containing water. Aquifers are sources of ground water for wells and springs.

contaminants of potential concern (COPCs) – Contaminants that, if present at levels of concern, potentially pose a risk to human health or the environment, if exposures occur.

ecological risk assessment – A qualitative and quantitative evaluation of the risk posed to plants or animals by the actual or potential presence of specific contaminants.

ground water – The supply of fresh water found beneath the Earth's surface, which supplies wells and springs.

ground water monitoring well – A well used to collect samples for measuring the amounts, types, and distribution of contaminants in a ground water aquifer.

human health risk assessment – A qualitative and quantitative evaluation of the risk posed to human health by the actual or potential presence of specific contaminants.

maximum contaminant level (MCL) – The maximum permissible level of a contaminant in water delivered to any user of a public drinking water system.

National Priorities List (NPL) – EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible remedial action using federal funding.

State of California – The California Regional Water Quality Control Board, Los Angeles Region (LARWQCB) and the California Department of Toxic Substances Control (DTSC).

volatile organic compounds (VOCs) – Carbon-containing compounds that evaporate at room temperature.

Community Involvement

To learn more about Area 3, please visit one of the Information Repositories listed below or go to EPA's Web site: www.epa.gov/region09/SanGabrielAlhambra. The RI report and other information about the investigation of ground water contamination in Area 3 are available for public review.

Contacts

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State of California

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Community Outreach Group

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Information Repositories



Alhambra Civic Center Library
101 S. First Street
Alhambra, CA 91801
(626) 570-5008
<http://www.alhambralibrary.org/>

Rosemead Library
8800 Valley Boulevard
Rosemead, CA 91770
(626) 573-5220
<http://www.colapublib.org/libraries/rosemead/>

West Covina Library
1601 West Covina Parkway
West Covina, CA 91790
(626) 962-3541
<http://www.colapublib.org/libraries/wcovina/>

Superfund Records Center
95 Hawthorne Street (SFD-7-C)
Room 403
San Francisco, CA 94105
(415) 536-2000



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