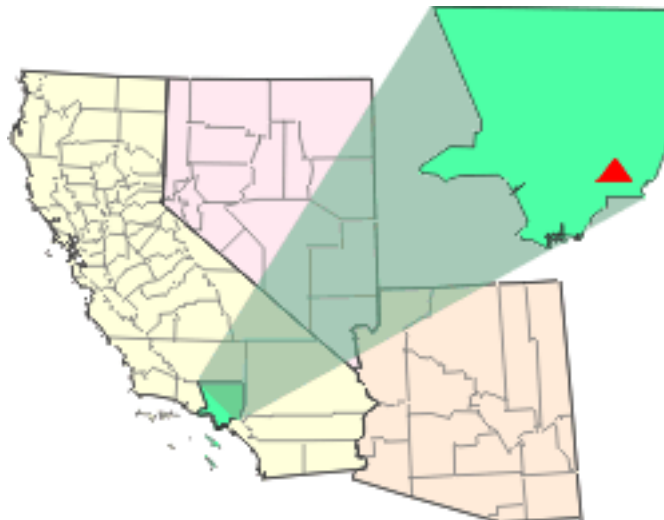


SAN GABRIEL VALLEY (AREA 2 - Baldwin Park)

CALIFORNIA

EPA ID#

CAD980818512



[Click here for interactive site area map](#)

**EPA Region
9**

**City: Azusa,
Baldwin Park,
Irwindale, West
Covina, La
Puente, Industry
County: Los
Angeles**

Other Names:

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▼ SITE DESCRIPTION AND HISTORY

Description: The San Gabriel Valley Superfund sites include multiple areas of contaminated groundwater in the San Gabriel Basin aquifer, a critical source of drinking water for water-scarce Southern California. Approximately 30 square miles of the 170 square mile San Gabriel Valley are contaminated. The four Superfund sites include areas of soil and groundwater contamination underlying portions of the cities of Alhambra, Arcadia, Azusa, Baldwin Park, Industry, Irwindale, El Monte, La Puente, Monrovia, Rosemead, South El Monte, and West Covina.

The groundwater contamination was first detected in 1979 in groundwater wells operated by the Valley County Water District. Following this discovery, the California Department of Health Services (CDHS) initiated a well-sampling program to assess the extent of contamination. By 1984, 59 wells were found to be contaminated with high levels of volatile organic compounds (VOCs). Despite the widespread areas of contamination, the San Gabriel Basin aquifer continues to provide approximately 90 percent of the domestic water supply for the Valley's one million residents. EPA's efforts began in the mid 1980s with sampling and analysis needed to understand the nature and extent of soil and groundwater contamination, development of a basin-wide plan to set cleanup priorities, and joint State and Federal efforts to develop the institutional framework necessary to address the contamination.

The San Gabriel Valley was divided into eight project areas in the early 1990s. The cleanup plan for the Baldwin Park project was adopted in 1994; PRPs at the site were identified between 1990 and 1997; design work and negotiations with local water agencies occurred throughout the late 1990s; and construction work on the cleanup facilities began in 1999. As of May 2002, design work is nearing completion, and construction is underway, with approximately \$90 million in construction expected to finish in mid-2003. Additional details are provided below.

This site is being addressed through Federal and State actions.

Site Responsibility:	NPL LISTING HISTORY Proposed Date: 09/08/83 Final Date: 05/08/84 Deleted Date:
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▼THREATS AND CONTAMINANTS



The Baldwin Park Operable Unit addresses multiple, commingled plumes of groundwater contamination which have resulted in an area of contamination over a mile wide and eight miles long. The depth to the groundwater varies from about 150 to 350 feet, and the groundwater contamination extends from the water table to more than 1,000 feet below ground surface. The most prevalent contaminants in the groundwater are trichloroethene (TCE), perchloroethylene (PCE), carbon tetrachloride, perchlorate, and N-nitrosodimethylamine (NDMA). TCE, PCE, and carbon tetrachloride are solvents used for degreasing and cleaning; perchlorate is a component of solid-fuel rockets (including those used in the space shuttle); and NDMA is associated with liquid-fuel rockets. Other volatile organic compounds (VOCs) are also present, including the chemical 1,4-dioxane, which has been used as a stabilizer in chlorinated solvents. (The chemical 1,4-dioxane is not related to the chemical known as dioxin.) The peak contaminant concentration measured in groundwater in the Baldwin Park area is 38,000 ug/l PCE; more than 7500 times the maximum contaminant level (MCL) allowed by Federal and State law. Water utilities in the area have been able to continue to provide their customers with clean water by shutting down wells in contaminated areas, installing "wellhead" treatment systems, blending contaminated water with clean water to meet drinking water standards, and by obtaining water from neighboring utilities. As the contamination continues to spread, however, the cost and difficulty of finding alternative water supplies have increased.

▼CLEANUP APPROACH

A remedy was selected for the Baldwin Park project in 1994. The design process began in 1995, after the EPA identified the initial 16 Potentially Responsible Parties. The remedy is being built as four subprojects, each ranging in capacity from 2,500 gallons per minute to 7,800 gallons per minute. This "phasing" of the work allows construction to begin on the initial subprojects as design work is completed on the later subprojects. Each subproject has or will have one or more groundwater extraction wells and a series of treatment processes expected to include air stripping, ion exchange, and advanced oxidation (ultraviolet light and hydrogen peroxide). The first of the four subprojects, the La Puente Valley County Water District project, has been completed and is now supplying the treated groundwater for potable use. As of May 2002, the second subproject, the San Gabriel Valley Water Company B6 project, is beginning construction. The third subproject, the Valley County Water District subproject, is about to begin construction. The fourth and last subproject, the San Gabriel Valley Water Company B5

subproject is in the design phase. The San Gabriel Valley Water Company B6 subproject and the Valley County Water District subproject are expected to be completed in late 2002 or early 2003, and construction on the final subproject should be completed by mid-2003.

▼ Response Action Status



In 1989, the California Regional Water Quality Control Board, Los Angeles Region, working in accordance with a Cooperative Agreement with the EPA, began to identify the sources of the groundwater contamination in the Azusa/Baldwin Park area. The Regional Board inspected more than 1,400 commercial and industrial businesses in the area and required testing of soil or groundwater where the potential for contamination existed. Using the test results, historical Federal, State and local records, responses to information requests, and other investigative techniques, EPA determined that 19 parties had contributed significantly to the groundwater contamination. The 19 companies have been named as "Potentially Responsible Parties" (PRPs). Hundreds of other companies have been sent "no further action" letters to inform them that EPA does not believe that they have contributed to the groundwater contamination.

From 1990 to 1993, EPA completed the Baldwin Park Operable Unit Remedial Investigation and Feasibility Study, which was an investigation of the nature and extent of contamination in the Azusa/Irwindale/Baldwin Park area and evaluation of cleanup options. The investigation included the compilation and analysis of sampling results from existing water supply wells, temporary reactivation and sampling of inactive water supply wells, installation of a 1,500-foot deep monitoring well (by EPA), installation and sampling of more than two dozen shallow groundwater monitoring wells (by PRPs), development of a groundwater flow model of the aquifer, and preliminary discussions with local water agencies over the role of local water agencies in the cleanup. In 1993, EPA issued its proposed cleanup plan.

In March 1994, after review of hundreds of public comments, EPA selected a cleanup plan for the Baldwin Park area. The selected remedy, now under construction, includes four groundwater pump and treat systems capable of extracting and treating approximately 22,000 gallons per minute, or 32 million gallons per day (MGD), of contaminated groundwater.



In 1995, after EPA named the initial 16 PRPs, collection of the data needed to begin to design the facilities called for in EPA's cleanup plan began. From 1995 to early 1997, a majority of the PRPs, organized as the Baldwin Park Operable Unit Steering Committee, installed and sampled a network of eight 700 to 1,000 foot deep multilevel groundwater monitoring wells in order to support the development of a detailed groundwater extraction plan. During this period, negotiations over the role of local water agencies in the cleanup also continued.

Negotiations with the water agencies were focused on a proposal advocated by the Metropolitan Water District of Southern California to export the treated groundwater produced by the cleanup to Metropolitan's customers elsewhere in Southern California. As part of the proposal, in what would have been a "conjunctive use" arrangement, Metropolitan would have obtained rights to store water in the San Gabriel Basin aquifer. Despite many studies and hearings and much lobbying on behalf of the Metropolitan Plan (termed the "Consensus Plan" by one of its supporters), the plan was not implemented.

Instead, in 1998, local support shifted to an alternative plan proposed by the Main San Gabriel Basin Watermaster (a court-appointed entity responsible for administering the water rights agreement in the San Gabriel Basin). The Watermaster Plan proposed that the treated groundwater be used locally, and that local agencies play a major role in designing, building, and operating the cleanup facilities. The Watermaster Plan resulted in large part from the June 1997 discovery of another contaminant in the groundwater at potentially unsafe levels. The contaminant was perchlorate, an inorganic constituent of solid rocket fuel, that has in the last several years been found in groundwater at sites throughout the United States. Two other chemicals, N-nitrosodimethylamine (NDMA) and 1,4-dioxane, were also found in the groundwater in the Baldwin Park area after perchlorate was discovered. The originally planned treatment technologies (air stripping and/or granular activated carbon) are not capable of effectively removing perchlorate, NDMA, or 1,4-dioxane from water and, at the time, no proven perchlorate-removal technologies were available. The presence of perchlorate, NDMA, and 1,4-dioxane forced the closure of additional public water supply wells in the area, leading to renewed local interest in using the treated groundwater produced by the cleanup.

Also in 1997, EPA identified three additional PRPs. In May 1997, EPA sent "Special Notice" letters to the 19 named PRPs to begin formal negotiations expected to result in a binding commitment by the PRPs, in the form of a Consent Decree, to design, construct, and operate the groundwater cleanup facilities. The negotiations were originally expected to conclude in late 1997, but were delayed following the discovery of perchlorate, NDMA, and 1,4-dioxane.

From 1997 to 1999, with EPA oversight, the Baldwin Park Operable Unit Steering Committee installed additional groundwater monitoring wells and

carried out studies of perchlorate- and NDMA-removal technologies, including a series of pilot-scale tests of a biological treatment technology. The Steering Committee also contributed to an evaluation of ion exchange technologies overseen by the Main San Gabriel Basin Watermaster. The tests showed that both technologies, biological treatment and ion exchange, were capable of removing perchlorate from water.

In mid-1999, at the same time that PRP-water agency negotiations continued in an effort to work out arrangements for local water agency involvement in the cleanup, EPA resumed Consent Decree negotiations with the Potentially Responsible Parties and set a deadline for the PRPs to submit a "Good Faith Offer." In August and September, the PRPs submitted two inadequate offers that EPA rejected, prompting EPA to prepare to issue Unilateral Administrative Orders to compel the PRPs to complete the design and construct the cleanup facilities. On September 9, 1999, minutes before a final EPA deadline, 11 of the 19 PRPs submitted a more substantial offer that met EPA's requirements for a Good Faith Offer. The September 1999 offer was to design, build, and operate the cleanup facilities with or without the provision of public funds, to repay some (but not all) of the public funds already spent on the cleanup, and to begin the formal design process immediately rather than wait until negotiations were concluded.

EPA-PRP negotiations continued into early 2000, in an effort to translate the September 1999 offer into a binding commitment, and to reach agreement on repayment of EPA and State past costs. EPA allowed negotiations to continue much longer than is typical because of strong local support for a negotiated settlement and because the PRPs kept their commitment to continue the design process during negotiations. The most difficult issues to resolve were the end-use of the treated groundwater, the role of the local Watermaster and water utilities in the cleanup, and repayment of EPA, State, and local funds spent on the cleanup. The California Department of Toxic Substances Control (DTSC) and the California Regional Water Quality Board (RWQCB) also participated in the negotiations.

Two other sets of negotiations occurred simultaneously. First, the PRPs negotiated among themselves to allocate liability for cleanup costs and responsibility for carrying out the cleanup work. Second, the PRPs and the Main San Gabriel Basin Watermaster continued their negotiations, with the help of an independent mediator, to resolve a number of issues important to local water utilities, including the technology to be used for perchlorate removal, the number of treatment facilities to be constructed, local involvement in design, construction, and operation of the treatment facilities, and use of any public funds that may be available.

By June 2000, however, negotiations had not produced agreements between EPA

and the PRPs, or between the Offering Parties and the Watermaster. EPA concluded that negotiations alone were unlikely to produce an agreement and, on June 30, 2000, issued a Unilateral Administrative Order ("Order") directing the 19 PRPs to complete the remedial design and make arrangements for the construction and operation of the BPOU groundwater extraction wells, treatment systems, and related cleanup facilities.

The PRPs complied with EPA's Order, but the design work required by the Order was slowed by uncertainty over local involvement in the cleanup. Still unresolved in 2000 was the ultimate use of the treated groundwater, the selection of the perchlorate treatment technology, treatment facility locations, the extent to which existing water supply wells would be used as groundwater extraction locations, and the extent to which local water agencies would be involved in design and construction of the facilities. In Fall 2000, negotiations between the PRPs and water agencies resumed, and in January 2001 a 25-page preliminary agreement was reached between six water agencies and eight of the PRPs. The agreement, known as the Memorandum of Understanding (MOU), calls for the PRPs to fund most of the cost of designing, building, and operating the groundwater extraction and treatment facilities called for in EPA's cleanup plan and for the water agencies to construct, own, and operate the facilities. The agreement allowed the PRPs to make use of Federal appropriations provided via the Bureau of Reclamation. The PRPs also agreed to provide financial assurances in the form of letters of credit to ensure that they satisfy their funding obligations over the next several years, and to repay the water agencies for the costs of many of the wellhead treatment systems installed over the last decade.

PRP-water agency negotiations to translate the MOU into a detailed binding agreement continued throughout 2001 and early 2002. After hundreds of hours of negotiations, active EPA mediation, assistance from professional third-party environmental mediators, multiple public hearings, and extensive media coverage, eight PRPs and seven water agencies signed a final comprehensive agreement in March 2002. The 300-page agreement commits the PRPs to fund the design, construction, and operation of the groundwater extraction, treatment, and conveyance facilities needed to satisfy EPA's cleanup goals and meet local water supply needs. The water agencies and their contractors are completing most of the design and construction work, with EPA and PRP oversight. The PRP-water agency agreement not only addresses funding and work responsibilities, but provides criteria for selection of water treatment technologies, establishes a cost consultant and risk manager, describes contracting requirements, requires payment of management and performance fees, requires efforts to obtain public funds, includes audit and insurance requirements, resolves certain lawsuits, and provides dispute resolution procedures.

Site Facts: * Groundwater contamination at the site results from the cumulative impact of

decades of spills, improper chemical handling and disposal practices. Although many of the laws regulating the handling and disposal of hazardous chemicals went into effect after 1970, historical documents demonstrate that local officials were concerned about the potential for groundwater contamination by industrial activity in the San Gabriel Valley as early as the 1950s.

- * The cleanup plan requires pumping of approximately 22,000 gallons per minute of contaminated groundwater and treating it to remove contaminants at an estimated cost of \$150 to \$200 million, making the groundwater cleanup one of the largest and most expensive in the United States.

- * The water treatment systems make use of a variety of processes to remove the contaminants from the groundwater: ion exchange (to remove perchlorate and nitrate); ultraviolet light and hydrogen peroxide (to remove NDMA, 1,4-dioxane, and VOCs); and air stripping and offgas treatment (to remove VOCs).

- * An initial pilot-scale test of a biological treatment system for perchlorate removal was completed between November 1997 and May 1998. The testing demonstrated that the treatment system, which converts the perchlorate to chloride, a non-toxic form of chlorine, could reduce the concentration of perchlorate in the groundwater to non-detectable levels. The PRPs completed a second phase of testing in 2000 to determine whether the treatment system could reliably produce water of drinking water quality. Although the results of the phase 2 testing were positive, a decision was made to use an ion exchange system, rather than the biological treatment system, for perchlorate removal.

- * The end use of the treated groundwater has probably been the most contentious issue at the site. During the last ten years, a variety of proposals for use of the water have been made then abandoned, largely because of associated institutional issues. Earlier plans to export the treated groundwater out of the San Gabriel Valley were replaced by plans to use much of the water locally to replace supplies lost when contamination forced the closure of water supply wells.

- * The Baldwin Park cleanup plan combines cleanup and regional water supply goals. The recently-completed negotiations to implement a joint cleanup and water supply project appear to have succeeded, but the agreement did not come quickly or cheaply. The negotiations lasted more than three years and the PRP and water agency attorneys and consultants who negotiated the agreement, and

supported the negotiations probably cost \$5 to \$10 million. The negotiations were complex and contentious for a number of reasons, including the high cost of cleanup, the number of parties involved in the negotiations, divergent interests among the water agencies, divergent interests among the PRPs, the desire for a comprehensive agreement, and an initial lack of trust among the negotiating parties.

▼ ENVIRONMENTAL PROGRESS



After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the San Gabriel Valley Area 2 site while studies are taking place and final cleanup actions are planned.

▼ POTENTIALLY RESPONSIBLE PARTIES

Potentially responsible parties (PRPs) refers to companies that are potentially responsible for generating, transporting, or disposing of the hazardous waste found at the site.

POTENTIALLY RESPONSIBLE PARTIES - NAMES AND FACILITY ADDRESS

SAN GABRIEL VALLEY SUPERFUND SITES, BALDWIN PARK OPERABLE UNIT

Initially Compiled January 10, 1995;

Additional PRPs Added January and May 1997

I. LARGEST CONTRIBUTORS TO THE GROUNDWATER CONTAMINATION (in alphabetical order)

Aerojet General Corporation, 1100 W. Hollyvale Street in Azusa, California

Huffy Corporation, 1120 W. Foothill Blvd. in Azusa, California

Oil & Solvent Process Co. (Waste Management), 1704 W. First Street in Azusa, California

Wynn Oil Company, 1151 W. 5th Street in Azusa, California

II. LESSER CONTRIBUTORS TO THE GROUNDWATER CONTAMINATION

(in alphabetical order)

Azusa Land Reclamation Co. (BFI), 1201 W. Gladstone Street in Azusa, California
Azusa Pipe and Tube Bending, 766 N. Todd Ave in Azusa, California
Allegiance Healthcare Corporation (Baxter Healthcare), 4401 Foxdale Avenue in Irwindale, California
Fairchild Industries, 601 S. Vincent Avenue in Azusa, California
The Hartwell Corporation, 701 W. Foothill Boulevard in Azusa, California
J. H. Mitchell and Sons Distributors, Inc., 14515 Joanbridge Street in Baldwin Park, California
Lockheed-Martin Corporation, 1004 W. 10th Street in Azusa, California

Mobil Oil Corporation, 1004 W. 10th Street in Azusa, California
Phaostron Instruments & Electronic Company, 717 North Coney Avenue in Azusa, California

Reichhold Inc., 237 Motor Ave in Azusa, California
Rubber/ Urethanes Inc., 968 W. Foothill Blvd. in Azusa, California
Screwmatic Inc., 925 W. First Street in Azusa, California

Seidner Family Trust, 705 W. Foothill Blvd in Azusa, California

The Valspar Corporation, 1004 W. 10th Street in Azusa, California
White and White Properties, 145 S. Irwindale Ave in Azusa, California and 204 S. Motor Avenue in Azusa, California

▼ SITE DOCUMENTS AND REPORTS

Administrative Records: [Baldwin Park Operable Unit \(part 1\)](#), [\(part 2\)](#)

Records of Decision: Online versions not yet available

Technical Documents:

▼ COMMUNITY INVOLVEMENT

Public Meetings:

Newsletters and Fact Sheets:

- 1) [May 1999 - EPA Updates Cleanup Plan For The Azusa - Irwindale - Baldwin Park Area](#)

▼ SITE REPOSITORIES/LIBRARY SOURCES



The public information repositories for the site are at the following locations:

West Covina Library
1601 West Covina Parkway
West Covina, CA 91790
(626) 962-3541

Rosemead Library
8800 Valley Boulevard
Rosemead, CA 91770
(626) 573-5220

The most complete collection of documents is the official EPA site file, maintained at the following location:

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

Enter main lobby of 75 Hawthorne street, go to 4th floor of South Wing Annex.

▼ CONTACTS

EPA SITE MANAGER:

Wayne Praskins

ADDRESS:

PHONE NUMBER: (415) 972-3181

E-MAIL ADDRESS:

EPA COMMUNITY INVOLVEMENT COORDINATOR: Don Hodge

ADDRESS:

PHONE NUMBER: 1-800-231-3075

E-MAIL ADDRESS:

PUBLIC INFORMATION CENTER: (415) 947-8701

E-MAIL ADDRESS: r9.info@epamail.epa.gov

STATE CONTACT:

ADDRESS:

PHONE NUMBER:

PRP CONTACT:

ADDRESS:

PHONE NUMBER:

COMMUNITY CONTACT:

ADDRESS:

PHONE NUMBER:

After Hours (Emergency Response)

State Environmental Protection Agency
(800) 852-7550

US Environmental Protection Agency
(800) 424-8802

▼ MISCELLANEOUS INFORMATION

STATE:

CA

CONGRESSIONAL DISTRICT:

31

EPA ORGANIZATION:

SFD-7-3