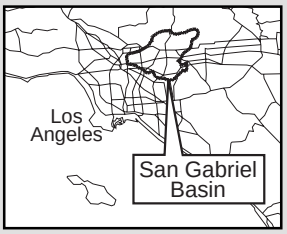
San Gabriel Valley
Superfund Sites /
Baldwin Park Operable Unit



U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • October 2002

Azusa / Baldwin Park Cleanup Underway

Construction Starts on Joint Cleanup and Water Supply Project

One of the largest Superfund cleanups in the nation is underway. Construction of the groundwater extraction wells, water treatment systems, pipelines, and other facilities needed for cleanup of the groundwater contamination in the Azusa/Baldwin Park area has begun. The contamination targeted by the cleanup is more than 200 feet below the surface in the underground water supply, and extends from the city of Azusa through the cities of Irwindale, Baldwin Park, West Covina, and Industry. The cleanup is critical to the preservation of the San Gabriel Valley groundwater supply as the main source of drinking water for more than one million Los Angeles County residents.

Several local water agencies and their contractors are managing the construction work, funded by a mix of private and public funds. The U.S. Environmental Protection Agency (EPA), the California Department of Health Services, and other agencies are overseeing the work. To date, more than $20 million has been spent on design and construction, and another $65 million will be spent over the next 18 months. The cleanup is expected to cost more than $200 million over the next 15 years.

FOUR WATER TREATMENT SYSTEMS BEING CONSTRUCTED

Four separate water treatment systems are being built as part of the cleanup. Each system has two or more wells to pump the groundwater to the surface, a series of water treatment units to remove the contaminants from the water, and pipelines to transport water from the wells to the treatment units and from the treatment units to local water companies for distribution. The water treatment systems use a variety of processes to remove the contaminants (see Table 2, next page).

Cont'd. on pg. 2

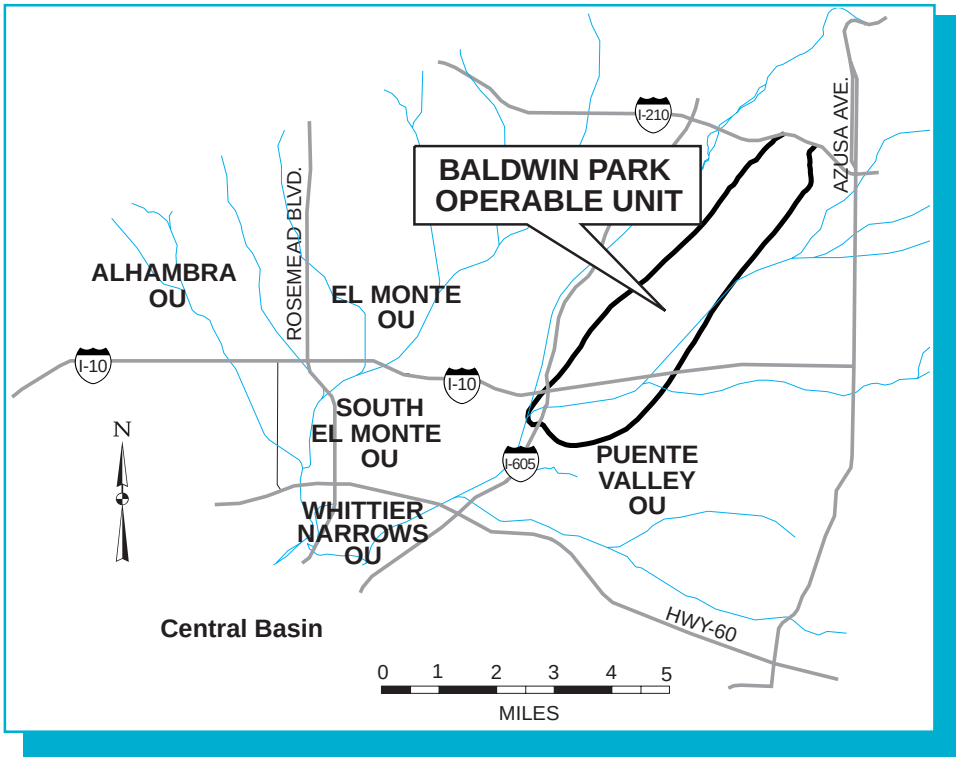


Figure 1: *Location of the Baldwin Park Operable Unit and other San Gabriel Valley Superfund Site Projects*

The first of the four treatment systems, known as the La Puente Valley County Water District subproject, was completed in March 2001 at a cost of approximately $4 million. It is now supplying high quality water to approximately 9,000 San Gabriel Valley residents. This system was initially funded by a local tax on water sales and Federal funds. The local funds were later repaid by eight companies identified by EPA as Potentially Responsible Parties (PRPs).

Table 1. Baldwin Park Water Treatment Systems

PROJECT OWNER AND OPERATOR	PROJECT LOCATION	CUSTOMERS	PROJECT CAPACITY (GAL. PER MIN.)
La Puente Valley County Water District	Baldwin Park	La Puente and Industry	2,500
San Gabriel Valley Water Company (B6 Plant)	Baldwin Park	Baldwin Park, La Puente, Bassett, and lower Hacienda Heights	7,800
Valley County Water District	Irwindale	Baldwin Park, Azusa, Irwindale, and West Covina	7,800
San Gabriel Valley Water Company (B5 Plant)	Industry	Baldwin Park, La Puente, Bassett, and lower Hacienda Heights	7,800
TOTAL:			25,900

The second treatment system is known as the San Gabriel Valley Water Company B6 subproject. Construction of the $26 million system began in May 2002 and is more than 50 percent complete. The system is expected to be operational in early 2003.

The third treatment system is known as the Valley County Water District subproject. Construction of the $31 million system began in September and is scheduled for completion in Spring 2003.

The fourth and last treatment system is known as the San Gabriel Valley Water Company B5 subproject. The San Gabriel Valley Water Company B5 project is in the design phase, with construction of the $19 million system expected in late 2003 or early 2004. The PRPs are paying most of the costs of the B6, Valley County, and B5 subprojects, and Federal grants are paying the rest.

GROUNDWATER CONTAMINATION

The groundwater in most of the Azusa/Baldwin Park area is more than 200 feet deep. The contaminated portion of the groundwater supply is approximately eight miles long and one mile wide (see Figure 2). The contamination results from decades of improper chemical handling and disposal practices, probably beginning in the 1940s. EPA's cleanup goals for the Baldwin Park area are to limit

Table 2. Chemicals in Baldwin Park OU Groundwater

Chemical	Sources	Water Treatment Technology
Trichloroethene (TCE)	Industrial solvents for cleaning and degreasing	Air stripping with off-gas treatment
Perchloroethylene (PCE)		
Carbon tetrachloride		
Perchlorate	Solid rocket fuel	Ion exchange
Nitrate	Fertilizer	
N-nitrosodimethylamine (NDMA)	Liquid rocket fuel	Ultraviolet light and hydrogen peroxide
1,4-dioxane	Stabilizer for chlorinated solvents	

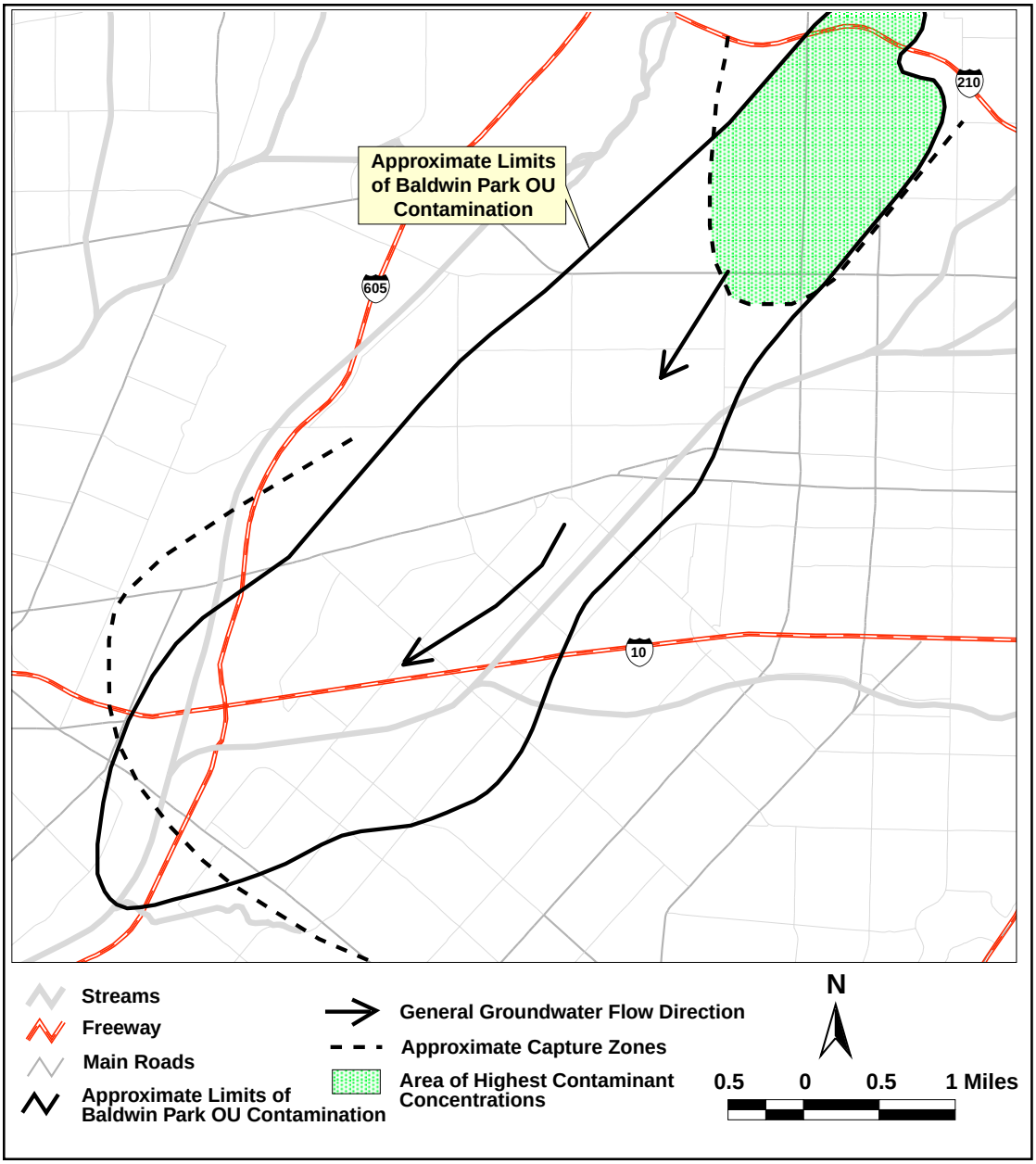


Figure 2: *Groundwater Contamination in the Azusa-Baldwin park area*

CONTRACTORS

A variety of equipment vendors and contractors are working on the cleanup. Contractors hired to date include:

- Stetson Engineers, Inc. of Covina, CA -- serving as construction manager for the work.
- Calgon Carbon Corp. of Pittsburgh, PA -- supplying perchlorate-removal systems
- Trojan Technologies Inc. of Tucson, AZ -- supplying NDMA and 1,4-dioxane removal systems.
- R.C. Foster of Corona, CA -- installing the treatment systems
- Valverde Construction, Inc. of Santa Fe Springs, CA -- installing pipelines.

any further spread of the groundwater contamination and remove the contaminants from the groundwater.

THE BALDWIN PARK PROJECT AGREEMENT

In the early 1990s, when EPA developed the Baldwin Park cleanup plan, EPA committed to carry out the cleanup in a way that would accommodate important local and regional water interests. That has meant working out arrangements for use of the treated groundwater, making use of existing wells, treatment systems, and pipelines, and determining the role for local agencies in the design, construction, and operation of the treatment facilities. Initial plans in the early 1990s called for the export of the treated groundwater out of the San Gabriel Valley. In the late 1990s, when the contamination forced the closure of local water supply wells, plans were changed to use the water locally.

Negotiations to implement the plan involving EPA, seven water agencies, and eight PRPs occurred between 1999 and 2002. Steady progress was made, but on several occasions the negotiations stalled. The negotiators refused to give up, however, finally reaching agreement in May 2002. The "Baldwin Park project agreement" commits the eight participating PRPs to fund the design, construction, and

operation of the groundwater extraction, treatment, and conveyance facilities needed to satisfy EPA's cleanup goals and provides for local use of the treated water. In addition to specifying funding and work responsibilities, the agreement provides criteria for selection of water treatment technologies, describes contracting requirements, requires payment of management and performance fees, describes efforts to obtain public funds, includes audit and insurance requirements, and resolves certain lawsuits.

Figure 3: *Construction of the San Gabriel Valley Water Company B6 Treatment Facility*

TIMELINE FOR THE BALDWIN PARK PROJECT

1990 • 1991 • 1992 • 1993 • 1994 • 1995 • 1996 • 1997 • 1998 • 1999 • 2000 •

- **1990-97** EPA Identifies 19 Potentially Responsible Parties
- **1994** EPA Adopts Baldwin Park Operable Unit cleanup plan
- **1997 - 98** Research and testing to identify water treatment
- **Mar 99 - May 02** PRP- Water
- **May 99** EPA updates Baldwin
- **Jun 00** EPA

= Duration of activity (note variable scale)

Figure 4: *Installation of pipelines as part of the Valley County Water District Subproject*

WHO PAYS?

Eight of the Potentially Responsible Parties identified by EPA are paying most of the cost of the cleanup. The eight PRPs are: Aerojet-General Corporation, Azusa Land Reclamation Co., Inc., Fairchild Holding Corporation, Hartwell Corporation, Huffy Corporation, Oil & Solvent Process Company, Reichhold, Inc., and Wynn Oil Company.

The Federal government is helping pay for the cleanup through legislation that earmarks funds for the San Gabriel Valley.

• 2001 • 2002 • 2003 • 2004

technologies for removal of Perchlorate and NDMA

Agency negotiations leading to Baldwin Park Operable Unit (BPOU) project agreement

Park cleanup plan to address additional contaminants (perchlorate, N-nitrosodimethylamine (NDMA), and 1,4-dioxane)

orders PRPs to design and construct cleanup facilities

- **Mar 01** La Puente Valley County Water District subproject begins serving water to its customers in La Puente and Industry
- **Aug 01 - 04** Design and Construction of the San Gabriel Valley Water Company (SGVWC) B6 subproject, Valley County Water District (VCWD) subproject, and San Gabriel Valley Water Company B5 subproject
- **May 02 - Feb 03** Installation of water treatment systems near Big Dalton Ave. and Corak Street in Baldwin Park (SGVWC B6 subproject)
- **Aug 02 - Early 03** Installation of pipelines (VCWD subproject) in Baldwin Park and Irwindale
- **Sep 02 - Spring 03** Installation of water treatment systems near Arrow Highway and Lante Ave. in Irwindale (VCWD subproject)
- **Early 03** Installation of groundwater extraction wells (all subprojects) in Irwindale and Baldwin Park
- **Late 03 - early 04** Installation of water treatment systems near Temple Ave. and Perez Place in the City of Industry (SGVWC B5 subproject)
- **Late 03 - early 04** Installation of pipelines in the City of Industry (SGVWC B5 subproject)

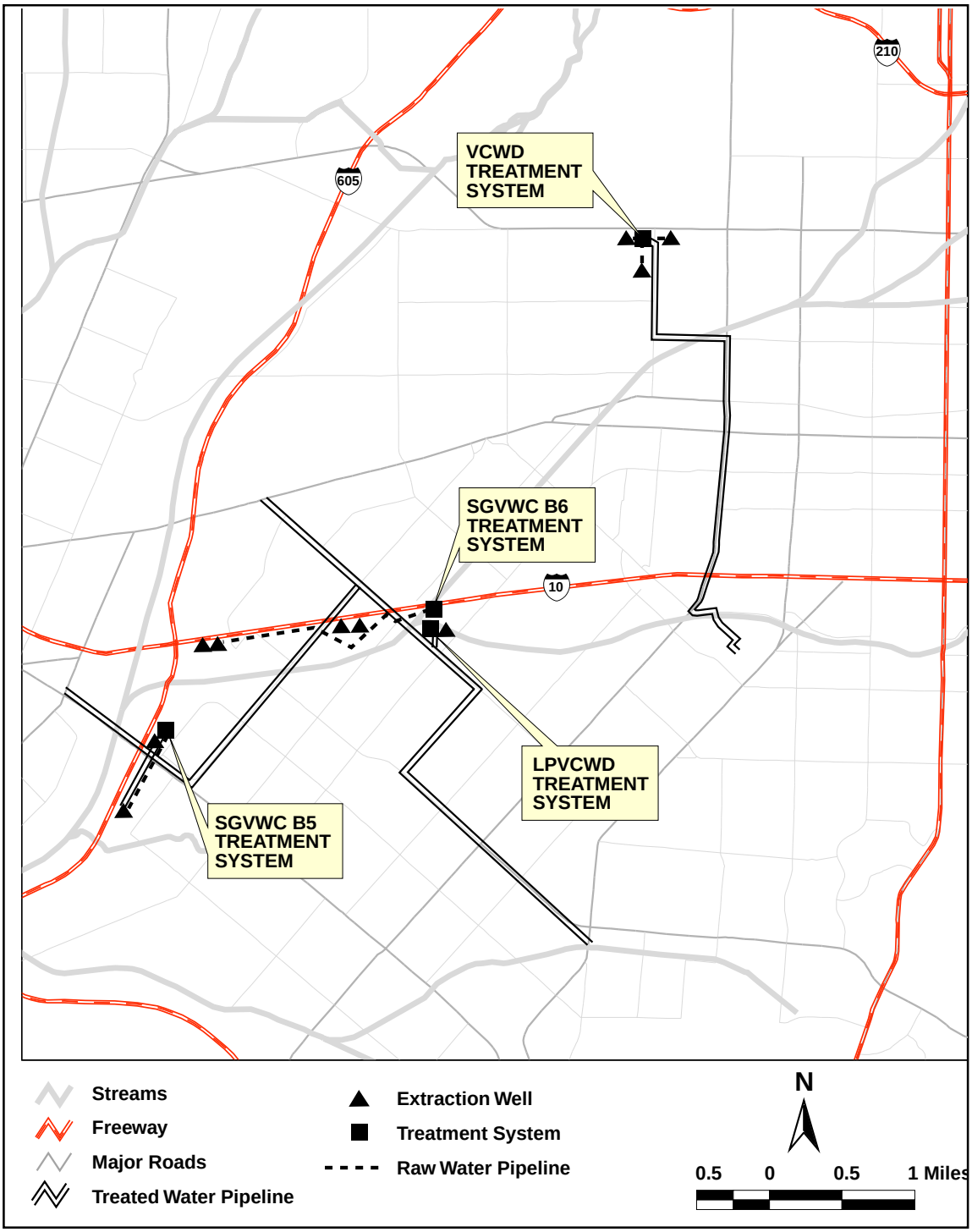


Figure 5: *Location of Baldwin Park wells, treatment systems and pipelines.*

The U.S. Bureau of Reclamation and the San Gabriel Basin Water Quality Authority are administering the $24 million in public funds provided to date for the Baldwin Park cleanup.

In addition to the eight PRPs paying directly for the cleanup, EPA has named 11 other companies as PRPs. Two of the 11 have settled their responsibility by entering into a "cashout settlement" with EPA; two additional companies have reached a tentative cashout settlement with EPA; one company appears to be financially insolvent; and one company has an extremely limited ability to pay. EPA intends to make one last effort to settle with the latter five companies in the next 60 to 90 days.

DEVELOPMENT AND TESTING OF GROUNDWATER WELLS

As part of the cleanup, seven new groundwater extraction wells will be constructed in some of the most contaminated portions of the groundwater basin. The new wells will draw groundwater from depths of about 200 to 1,000 feet below ground, at rates varying from 1,100 to 3,400 gallons per minute per well. The wells are an essential part of the cleanup needed to prevent further spread of the groundwater contamination and begin the long-term process of restoring the groundwater basin. Development and initial testing of the new wells will pump out between two and five million gallons of contaminated groundwater per well. (Development is the process of removing sand and silt from a newly constructed well.) After a careful evaluation of several options for disposal of the contaminated water produced during development and testing, EPA has concluded that the best means of disposal is to return the contaminated water to already-contaminated portions of the groundwater basin for later treatment. We are working with State and local agencies on plans to set up temporary dams in a local flood control channel to ensure that the water infiltrates into already-contaminated areas.

STATUS OF THE OTHER SAN GABRIEL VALLEY CLEANUPS

The Baldwin Park Operable Unit is one of six major EPA groundwater cleanup projects in the San Gabriel Valley.

The other five projects are the Whittier Narrows, Puente Valley, El Monte, South El Monte, and Alhambra Operable Units. In March 2002, EPA and the State of California completed construction of a $12 million groundwater treatment system in the Whittier Narrows, where more than one billion gallons of contaminated groundwater have already been cleaned up. EPA has adopted cleanup plans for the Puente Valley, El Monte, and South El Monte Operable Units and is conducting investigations as part of the Alhambra Operable Unit.

See the back page of this fact sheet for ways to receive more information on those projects.

ROLES AND RESPONSIBILITIES

A large number of Federal, State, and local agencies have a role in the Baldwin Park cleanup. They include:

The U.S. Environmental Protection Agency (EPA), through its Superfund program, developed the cleanup plan for the Baldwin Park area, identified the Potentially Responsible Parties which are paying for much of the cleanup, and will continue to oversee the design, construction, and operation of the cleanup facilities to ensure that regional cleanup goals are met.

The California Regional Water Quality Control Board (Los Angeles) assisted EPA in identifying PRPs and is taking the lead in directing PRPs to clean up soil contamination.

The California Department of Health Services, through its Division of Drinking Water and Environmental Management, regulates public drinking water systems in California. The Department must approve the design and operation of the four Baldwin Park treatment systems before the treated water can be supplied as a source of drinking water.

The Potentially Responsible Parties (PRPs) are companies which EPA believes have contributed to the groundwater contamination. Eight of the 19 PRPs identified by EPA signed the Baldwin Park project agreement and agreed to pay the costs of designing, constructing, and operating the cleanup facilities.

The Main San Gabriel Basin Watermaster is a court-appointed entity responsible for administering the water rights agreement in the San Gabriel Basin. The Watermaster is responsible for a variety of coordination, budgeting, monitoring, and reporting tasks required by the BPOU project agreement.

The La Puente Valley County Water District is a public water utility serving approximately 9,000 residents in the cities of La Puente and Industry. The District signed the Baldwin Park project agreement and owns and operates the LPVCWD subproject.

The San Gabriel Valley Water Company is a private water utility whose Baldwin Park area wellfields serve customers in Baldwin Park, LaPuente, Bassett, and lower Hacienda Heights. The Company signed the Baldwin Park project agreement and will own and operate the B6 and B5 subprojects.

The Valley County Water District is a public water utility serving approximately 55,000 residents in the cites of Baldwin Park, Azusa, Irwindale, and West Covina. The District signed the Baldwin Park project agreement and will own and operate the Valley County Water District subproject.

The San Gabriel Basin Water Quality Authority (WQA) was created by the State of California in 1993 to help coordinate the plans and activities of EPA and other Federal and State agencies responsible for cleanup of the San Gabriel Basin. The WQA signed the Baldwin Park project agreement and administers Federal funds earmarked for cleanup in the San Gabriel Valley.

The U.S. Bureau of Reclamation administers Federal funds earmarked for cleanup in the San Gabriel Valley.

The California Department of Toxic Substances Control (DTSC) has funded "wellhead" treatment systems in the Baldwin Park area and assists EPA in the Baldwin Park cleanup.

FOR MORE INFORMATION

For information about the Azusa/Baldwin Park cleanup, contact

Wayne Praskins, Project Manager
(415) 972-3181
Email: *praskins.wayne@epa.gov*

Lewis Maldonado, Attorney
(415) 972-3926

For Media inquiries, contact

Mark Merchant, Southern California Press Officer
(415) 947-4297

For information about any of the San Gabriel Valley Superfund Sites, log on to EPA's Web site at *www.epa.gov/region9* and find the San Gabriel Valley listings, or contact

Don Hodge, EPA Community Involvement Coordinator
(415) 972-3240
Fax: (415) 947-3528

or call EPA's Community Involvement Office message line:

(800) 231-3075

Printed on 30% postconsumer recycled/recyclable paper.

U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street (SFD-3)
San Francisco, CA 94105
Attn: Don Hodge

Official Business
Penalty for Private Use, $300

Address Service Requested

FIRST-CLASS MAIL
POSTAGE & FEES PAID
U.S. EPA
Permit No. G-35