

San Gabriel Valley a Hotbed of TCE Contamination

Los Angeles and Santa Clara counties are the most tainted from the toxic industrial solvent.

By Ralph Vartabedian, Times Staff Writer
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Trichloroethylene contamination has hit almost every state, but none more widely than California. TCE has contaminated water supplies, indoor air near cleanup projects and the air in cities all around the state.

The Environmental Protection Agency has 67 Superfund sites in California with TCE contamination, and state agencies have dozens more, stretching from the shores of the Pacific Ocean to the scrub of the Mojave Desert.

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Almost every major military base has a Superfund site with TCE contamination, including Camp Pendleton and Edwards Air Force Base. The Superfund program involves some of the most contaminated sites, usually at dumps, former military bases or closed industrial facilities. TCE was used by the military to degrease metal.

The federal government permits no more than 5 parts per billion of TCE in water. In California, 243 wells have reported violations of the 5-ppb standard from 1997 to 2004, according to California Department of Health Services. Many of those wells have been shut down. In some cases, water agencies use cleaner supplies to dilute the TCE-contaminated water.

The biggest areas of pollution are Los Angeles and Santa Clara counties. More than 30 square miles of the San Gabriel Valley, about 18% of it, lie in one of four Superfund sites in which the main contaminants are TCE and its close chemical cousin perchloroethylene, or PCE, a dry-cleaning agent. Much of the contamination has been traced to defense contractors. Among the cities affected by the contamination are Azusa, West Covina, City of Industry, El Monte and Alhambra.

The contaminated aquifer in the San Gabriel Valley supplies water for more than 1 million residents, though that water tapped by local agencies must meet the federal and state safety limit of 5 parts per billion, according to the Los Angeles Regional Water Quality Control Board.

A cleanup effort over the last 20 years has cost \$120 million and will continue for decades, according to Kathleen Salyer, a Superfund manager at the EPA. The operation pumps and filters 37 million gallons of polluted water at Whittier Narrows every day, ensuring it meets the 5-parts-per-billion TCE standard.

The San Fernando Valley is also over a large TCE plume that is grouped into three separate Superfund sites that have cost \$150 million to clean up

so far. The plume extends for four miles and contaminates water supplies for 800,000 residents.

Much of the pollution was traced to the former Lockheed Corp. aircraft facilities in Burbank. Major litigation during the 1980s and 1990s, in which residents claimed they were poisoned, was settled out of court or dismissed. The pollution has forced water agencies to abandon half of their wells in the area. Although TCE still affects city development projects, Burbank Vice Mayor Todd Campbell said the pollution no longer stirred up significant community activism.

The California Department of Toxic Substances Control runs 40 military base cleanup projects in Southern California, about half of which involve TCE contamination, said John Scandura, who works in the agency's office of military facilities.

The former El Toro Marine Base in Tustin, which is being redeveloped into a regional park and luxury housing, is among those cleanup projects. About 900 acres of heavily contaminated land will remain under Navy control for future cleanup.

The effort at Tustin mirrors plans around the country to build homes and office complexes close to contamination sites. One hitch with such redevelopment is the potential for high concentrations of TCE vapors that can permeate indoor air. A 2001 EPA draft risk assessment would have established tight limits on cleanups if such vapors were found inside homes.

The assessment suggested that individuals faced an elevated risk of cancer at TCE vapor levels from 0.017 to 1.7 micrograms per cubic meter, a level that is often exceeded in homes near TCE contamination sites, said Lenny Seigel, director of the Center for Public Environmental Oversight in Mountain View. TCE can vaporize from the ground and seep into homes through foundations.

To reduce such indoor air pollution, the EPA has already tightened cleanup requirements at some Superfund sites and forced polluters to pay for ventilation systems to purify indoor air.