Los Angeles Department of Water & Power

Groundwater Monitoring Wells

Groundwater System Improvement Study
Questions and Answers

What contaminants have polluted the groundwater and what areas are affected?

Chlorinated solvents such as trichloroethylene (TCE) and tetrachloroethylene (PCE), were widely used in the 1940s for dry cleaning and machinery degreasing. Disposal of these solvents was not well regulated at that time and a large number of facilities released these volatile organic compounds (VOCs) throughout the eastern San Fernando Valley. As a result over time, the large plume of VOC contaminated groundwater that extends from the North Hollywood area to the southeast for a distance of about 10 miles. Contamination has also affected other areas north of the large groundwater plume, although the extent is not fully known. In the 1980s, these contaminants were detected in the groundwater at levels exceeding regulatory limits for drinking water. Other notable contaminants also detected in the groundwater include carbon tetrachloride, trichloroethane, chromium and perchlorate. Nitrate has also affected the groundwater in localized areas as a result of past agricultural activity and the use of septic systems that were not connected to the municipal sewer system.

What are the health impacts of the contaminants in the plume?

Chlorinated solvents such as TCE and PCE are known to have both carcinogenic and non-carcinogenic human health effects.

What has LADWP done to address the contamination issue?

In 1983, LADWP developed a groundwater quality management plan which called for the deactivation of many water supply wells owned by the City. LADWP also expanded its groundwater sampling program to closely monitor the occurrence of contamination. Currently, 57 of the City's 115 existing water supply wells in the San Fernando Basin are deactivated. In 1989, LADWP worked in conjunction with the United States Environmental Protection Agency (USEPA) to construct the North Hollywood Operable Unit. This facility is designed to contain and remove the highly concentrated region of the VOC contaminant plume. A $20 million investigation funded by USEPA was completed which led to the installation of 89 monitoring wells and the development of a database, geographic information system, and regional groundwater flow model which analyzes the groundwater around the City's major well fields. In 2010, LADWP installed groundwater treatment units on two of the City's water supply wells at the Tujunga Wellfield to help contain and remove groundwater contaminants. LADWP is studying other treatment processes for implementing a groundwater remediation complex by 2021 that will remove the contaminants that have severely impaired the San Fernando Groundwater Basin.

What was the cost of constructing the monitoring wells and of the water quality testing program?

The cost of constructing the new monitoring wells was approximately $17.5 million, and the cost of the water quality testing program was approximately $3 million. Both were included in LADWP's budget. All efforts under this program were conducted in accordance with USEPA policy guidance.

Could LADWP have used other existing monitoring wells for this program instead of constructing new ones?

LADWP relied on the existing network of monitoring wells for this program. The additional monitoring wells supplement the existing network in areas where groundwater data did not exist but were needed to fully determine the extent of groundwater contamination around the City's well fields.

What were the factors used in determining where the monitoring wells are located?

Well locations were chosen to optimize monitoring along the water flow path to the city's water supply wells. The well locations were subject to approval by the State Water Resources Control Board-Division of Drinking Water (SWRCB-DDW). Factors included locations of known or suspected contaminant releases, water quality data, hydrogeologic information, groundwater flow modeling and areas where groundwater data did not exist.

How long did the drilling and installation of each well take and what was the overall duration for drilling all 25 wells?

It took an estimated three months to construct each well. The entire program of 25 groundwater monitoring wells was completed in early 2015.

What is the duration of the groundwater monitoring and water quality testing now that the wells are completed, and how often will the water be tested?

Some water quality testing was already performed using the existing network of more than 70 monitoring wells and LADWP water supply wells. Water quality tests on all of the 25 new wells were completed in 2014. LADWP has reviewed the test results with the SWRCB-DDW to determine the requirements and frequency for continued water quality testing under this program. LADWP currently expects to sample 35 monitoring wells annually, an additional 11 monitoring wells biannually and an additional 34 monitoring wells once every three years.

How does the community access information about the project?

Visit www.LADWP.com/wells for complete information regarding the project including background, construction updates and contact information. Information is also available at the following locations:

Panorama City Public Library
14345 Roscoe Blvd, Los Angeles, CA

City of Burbank Public Library
110 North Glenoaks St, Burbank, CA

City of Glendale Public Library
222 East Harvard St, Glendale, CA

City of Los Angeles Technical Central Library
630 West 5th St, Los Angeles, CA

What were the other partner agencies and contractors that LADWP worked with on this program and what are their roles?

LADWP - GSIS Program lead

Brown & Caldwell - GSIS Program Consultant and field geology services

State Water Resources Control Board-Division of Drinking Water - Lead agency for public health and safe drinking water regulations

USEPA - Lead agency for Superfund remedial investigations and groundwater cleanup programs.

US Army Corps of Engineers - Well Construction Contract Administrators

Weston Solutions - Groundwater consultants for the US Army Corps of Engineers and field geology services

National Exploration Wells and Pumps - Well drilling construction contractor

Other Involved Public Agencies - LA County Public Health, LA City Council Districts 2, 6, and 7, LA City Public Works, LA City Department of Transportation, and LA Police Department.