

Los Angeles County Drinking Water Challenges

California was the first state in the nation to recognize the human right to safe, clean, affordable and accessible water. Polluted drinking water is a public health crisis impacting a million people across the state, with low income Californians and communities of color bearing the brunt of the problem.

Los Angeles County, with a patchwork of public and private water systems, outdated infrastructure, schools with lead in their tap water, and up to a half a million residents dependent on domestic wells, needs state support to ensure all Angelenos can count on clean water in their homes, schools and workplaces. The *Safe and Affordable Drinking Water Fund* will help close the gap between the water ‘haves’ and ‘have nots.’

Los Angeles Water Systems

Los Angeles County is enormous in both area (over 4,000 square miles) and population (10.1 million). The community water systems that serve county residents are also diverse, at least in terms of size. While the Los Angeles Department of Water and Power provides drinking water to 4.8 million residents, and the Metropolitan Water District provides imported water to dozens of water systems, most communities receive their drinking water from one of the other 204 community water systems located in the county, with 93 of the systems, serving 1.125 million people, wholly dependent on local groundwater supplies, and most of the rest using a combination of local groundwater and imported surface water.

In addition to those systems serving residents year-round, 92 water systems are considered “non-community” water systems because they serve the public on an interim basis. These include several campgrounds, churches, schools and a few businesses. All of these systems rely solely on local groundwater supplies.

The county has direct oversight of small community water systems (fewer than 200 connections¹) and non-community systems. It also oversees 9 “state small” systems, which have between 5 and 14 connections, and 16 “local small” water systems, which serve between 1 and 4 connections. In addition, up to a half million residents² may depend on unregulated private wells.



Tim Watkins of the Watts Labor Community Action Committee displays bottles of tap water collected from residents of Watts.

Violations of Primary Water Quality Standards

Los Angeles has had relatively few violations of primary drinking water standards. Primary standards are set to avoid impacts to public health. A search of the State Water Board's water quality database since 2013 shows 6 community water systems with current violations, and five systems with violations that have been corrected.

While many other chemicals are found in the drinking water systems of LA County, they are either at levels below the water quality standard, are removed through treatment or reduced by blending with other sources. Public water systems monitor for contaminants being considered for regulation. Two of those, 1,4-dioxane and Strontium, are detected in many LA water systems.

LA County Major Water Quality Violations, 2013-2018³

Name of system	Population served	Contaminant	Year(s) of violation
Inglewood – City Water Department	86,418	Total Trihalomethanes	April-June 2013
Lancaster Park Mobile Home Park	61	Arsenic	2014-present
Land Projects Mutual Water Company	1500	Arsenic	2008-present
La Verne, City Water District	33,200	Nitrate Perchlorate	7/1-9/30 2017 7/1-9/30 2017
Lomita, City Water Dept.	20,290	Total Trihalomethanes	4/1-6/30 2016
Los Angeles Dept. of Water and Power	4,061,504	Total Coliform Groundwater Rule violation; ⁴ Failure to maintain microbial treatment	6/1/14-8/31/14 January 2016 January 2018
Mettler Valley Mutual	135	Arsenic	2014-present
Mitchell's Avenue E Mobile Home Park	24	Arsenic	2014-present
The River Community	35	Total Coliform	Parts of 2012, 2015, 2016
The Village Mobile Home Park	50	Arsenic	2014-present
Winterhaven Mobile Estates	56	Arsenic Total Coliform	2014-present July 2016

You'll notice that large systems found to be in violation have corrected their problems very quickly, while the small systems' problems have dragged out for years. Five of the six systems currently out of compliance are located in the Lancaster area and suffer from arsenic contamination. Most of the census tracts in this area have incomes less than 80% of the state median, which would qualify those systems as disadvantaged communities. The fact that these systems are consistently in violation could be an indication that the cost of compliance is beyond their financial capacity. ***These systems appear to be eligible for assistance from the Safe and Affordable Drinking Water Fund.***

Lead in Schools

The potential for lead contamination of water is of growing concern to California residents, with good reason. Children exposed to even low levels of lead can suffer permanent health impacts, including learning disabilities. California water systems, unlike those on the East Coast, are unlikely to have lead distribution lines,⁵ but fittings, joints and meters may contain some lead. However, because pipes, solder and fixtures were allowed to contain lead until 2010,⁶ there is potential for lead to be present in tap water from plumbing on the premises of homes, schools and businesses built before that date.

The legislature in 2017⁷ adopted a requirement that local water systems test tap water in all California schools (both public and private) by the end of 2018. This builds on a voluntary testing program begun by the State Water Board in 2017. Through March 30, 188 schools in LA county have been tested. This represents just a fraction of the 1.7 million students in the County's 3300 public and private schools.

The State Water Board discloses lead testing results above the official five parts-per-billion (5ppb) testing limit for lead. To date, forty-eight results out of 820 tests in LA county have exceeded that limit, which is in line with statewide results. The State Board received a small amount of funding in the 2017-18 state budget help schools replace fixtures when lead contamination is found; however, with most of the school testing in the state yet to be completed, it is unclear how much funding may be needed to fully mitigate problems that are found. ***Lead remediation is an eligible project under the Safe and Affordable Drinking Water Fund.***

Because the current lead and copper rule was adopted to provide guidance to water systems about their corrosion control programs, the 15 part per billion Action Level is not a health-based standard. As test results are released, each school district must develop its own guidance to determine when and whether to remediate taps with elevated lead levels.

The Los Angeles Unified School District (LAUSD), which serves more than 640,000 students, for several decades has had a daily flushing program of all drinking fountains to eliminate water that had been in contact with lead fixtures overnight. In 2015, LAUSD adopted a Drinking Water Quality Program intended to eliminate the flushing program by testing water quality and replacing fixtures whose lead concentration exceeded 15 parts per billion. That program continues to be implemented, but of the 4 schools tested in LAUSD so far, none exceed the 5ppb testing limit.

Many public water systems will provide residents with a lead-testing kit to measure the lead in their home drinking water supply. Check with your water provider to see if it provides this service.

Taste and Odor

Reports of drinking water contamination tend to ignore secondary contaminants and other nuisance chemicals, which are regulated for taste and odor rather than health concerns. However, the presence of these chemicals is a quality of life concern, and does raise concerns about consumption of sugary beverages when clean water isn't available. Complaints about severe discoloration, odor and taste problems have come from several residents of several communities, including Watts, Gardena, Sierra Madre, Lomita, Compton, Pacoima and Maywood.

Most LA County water sources contain multiple secondary contaminants. The most common is manganese, which has undesirable effects (brown water, metallic taste) at half the drinking water standard of 50 parts per billion which would trigger treatment by the water system. Iron and sulfate also contribute to taste and odor issues.

Almost all water systems in Los Angeles deliver water classified as hard or very hard. Hard water contains high levels of calcium and magnesium, which are essential minerals for human health, but at high concentrations reduce the efficiency of soaps, shampoos and detergents, leave scaly deposits on sinks, toilets and tubs, and reduce the useful life of appliances and clothes. These deposits also occur within the distribution system and can eventually restrict the flow of water through the system.

“Complaints about severe discoloration, odor and taste problems have come from several communities, including in Watts, Gardena, Sierra Madre, Lomita, Compton, Pacoima and Maywood.”

Domestic Wells

No water quality information is available for domestic wells in LA County, even though as many as a half-million residents may be served by these wells. Given the prevalence of contaminants, including nitrates, in the County's groundwater sources, tens of thousands of residents served by domestic wells could be exposed to contamination. ***Providing testing and assistance to low-income domestic well users is a priority of the Safe and Affordable Drinking Water Fund.***

Aging Infrastructure

The rapid and haphazard growth of LA County in the 20th century resulted in a jigsaw puzzle of water systems serving dozens of communities. Several communities are served by multiple water systems — including Bellflower and Maywood, each of which is served by 3 water systems, and El Monte, which has 5 public water systems. As their water infrastructure reaches the end of its useful life, these communities will face the same questions that small systems around the state are facing now; whether to retain autonomy at the cost of exorbitant water rates, or consolidate with neighboring systems to ensure access to safe and affordable drinking water to their customers. ***Consolidation costs are eligible for funding from the Safe and Affordable Drinking Water Fund when at least one system is experiencing water quality violations.***

Safe and Affordable Drinking Water Fund

The Safe and Affordable Drinking Water Fund included in Governor Brown's 2018 budget will help Los Angeles communities in four ways:

1. Fund treatment for systems serving disadvantaged communities that have unsafe levels of arsenic, nitrate, coliform, and other dangerous chemicals.
2. Help schools replace pipes and fixtures containing lead to ensure all Los Angeles children have access to fresh, clean water in the classroom and playground.
3. Provide testing and assistance to low-income well users whose drinking water is contaminated with arsenic, nitrate, and other contaminants.
4. Fund connections to larger water systems for disadvantaged communities whose water infrastructure is aging and fails to meet current health standards.

For more information about the Safe and Affordable Drinking Water Fund, go to fundsafewaterca.org or contact Jennifer Clary of Clean Water Action at jclary@cleanwater.org, Phoebe Seaton of Leadership Counsel for Justice and Accountability at pseaton@leadershipcounsel.org, or Jonathan Nelson of Community Water Center at jonathan.nelson@communitywatercenter.org

REFERENCES

Communities that Rely on a Contaminated Source of Groundwater for their Drinking Water, State Water Resources Control Board report to the legislature, January 2013

DWR Disadvantaged Community Mapping Tool <https://gis.water.ca.gov/app/dacs>

Pierce, McCann, DeShazo, Los Angeles County Community Water Systems, UCLA Luskin Center for Innovation, 2015

State Water Board Safe Drinking Water Information System, <https://sdwis.waterboards.ca.gov/PDWW/index.jsp>

US Census Bureau, <https://www.census.gov/quickfacts/fact/table/losangelescountycalifornia/PST045216>

USGS Water Science School, <https://water.usgs.gov/edu/hardness.html>

1 A connection is the hookup to a single household or business and is assumed to serve 3 people on average.

2 USGS California Water Science Center, http://ca.water.usgs.gov/water_use/index.html, This webpage can be found using the following digital object identifier (DOI): doi:10.5066/F7KD1VXV

3 Monitoring and notification violations were not included

4 According to LADWP's 2015 Consumer Confidence Report, "In January 2016, a six-hour lapse in treatment at the 99th Street Wells Water Treatment Facility resulted in a violation of the Groundwater Rule. The 99th Street facility treats water served to customers in the Green Meadows and Watts neighborhoods."

5 Legislation passed in 2016 (SB 1398, Leyva) requires public water systems to identify any lead distribution lines and report their existence and a timeline for removal to the State Water Board by 2020

6 AB 1953 (Chu, 2006) reduced the allowable lead levels in drinking water plumbing from 8% to .25% Federal legislation copied state law in 2008.

7 AB 746 (Gonzalez-Fletcher)