

2007



## LOS ANGELES COUNTY WATERWORKS DISTRICTS

LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 21, KAGEL CANYON

# ANNUAL WATER QUALITY REPORT

## Dear Customer:

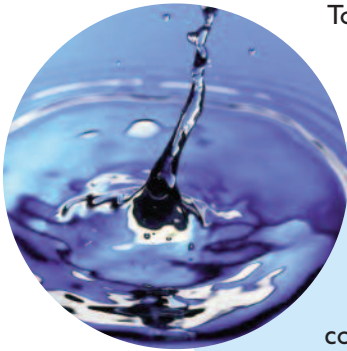
The Los Angeles County Waterworks Districts are pleased to provide you with our 2007 Annual Water Quality Report. We are committed to serving you a reliable supply of high quality water that meets State and Federal standards. Our ongoing efforts include increasing the capacity and reliability of the water system and ensuring the quality of our water supply through rigorous water quality testing.

There are two drinking water quality standards, Primary and Secondary Drinking Water Standards. Primary Drinking Water Standards are set for substances that are thought to pose a health risk at certain levels and are enforceable by law. Secondary Drinking Water Standards are set for substances that do not pose a health risk and are intended to control the aesthetic qualities related to the public acceptance of drinking water. Secondary Standards are not enforceable by law. We are pleased to inform you that during all of 2007, your drinking water met all Primary and Secondary Drinking Water Standards.

This report is intended to provide you with a better understanding of your drinking water. It contains information about where your water comes from, how your water is treated and monitored, and what contaminants may be present in your water. Moreover, we have included source water assessments, results from our water quality testing, and general information about your drinking water.

*Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.*

## Water Quality Monitoring



To ensure that water is safe to drink, the United States Environmental Protection Agency (USEPA) and the California Department of Health Services (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

To meet these regulations, key locations within the distribution system have been selected to monitor water quality. Every month, the distribution system is tested for bacteria and disinfectant levels to ensure that you receive safe and high quality drinking water. The distribution system is also tested for color, odor, temperature, and turbidity monthly, and disinfection byproducts quarterly. All tests are conducted in a State certified laboratory using Federally approved testing methods. Our contracted laboratory is equipped with state-of-the-art instruments capable of detecting contaminants at very minute quantities.

## Public Participation and Contact Information

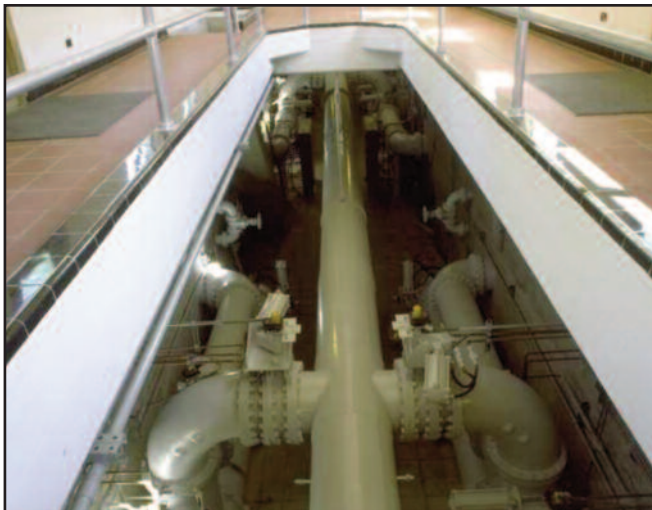
The regular meetings of the Los Angeles County Board of Supervisors are held every Tuesday at 9:30 a.m. in the Board's Hearing Room located at 500 West Temple Street, Room 381B, Kenneth Hahn Hall of Administration in Los Angeles. The regular meeting of the Board held on the fourth Tuesday of each month is primarily for the purpose of conducting legally required public hearings on zoning matters, fee increases, special district proceedings, property transactions, etc. On Tuesdays following a Monday holiday, the meetings begin at 1:00 p.m.

The Los Angeles County Waterworks Districts welcome your comments on our Annual Water Quality Report. For questions or comments regarding water quality or this report, please contact Mr. Mark Carney at (310) 456-6770 Ext. 242 or Mr. Clark Ajwani at (626) 300-4687. To view this report on the internet, please visit our website at <http://ladpw.org/wwd/web/waterquality/>.

## The Source of Your Water and Its Treatment

The District purchases its water from the Los Angeles Department of Water and Power (LADWP). LADWP water comes from the Eastern Sierras in the Owens valley via the Los Angeles Aqueduct, from the Sacramento River/San Joaquin Delta via the State Water Project, and from local groundwater.

The water from LADWP is treated at their filtration plant using conventional treatment methods, which include coagulation, flocculation, sedimentation, and filtration. The water is then disinfected to kill any remaining microorganisms, such as bacteria, and reduce the potential for their regrowth in the distribution pipes.



## Source Water Assessment

In July 2002, LADWP completed an assessment of drinking water sources in the Owens Valley and Mono Basin watersheds that supplement the Los Angeles Aqueduct supply. These sources are most vulnerable to geothermal activities that release naturally occurring arsenic in creeks that feed into the Owens River. Other activities that may impact water quality in these watersheds are livestock grazing, wildlife, and unauthorized public use of reservoirs. The extent and significance of water quality impact from these activities are not yet fully determined. Regular monitoring for *Cryptosporidium* and *Giardia* indicates that their presence is infrequent and at very low levels.

Assessment for groundwater sources in San Fernando and Sylmar was completed in December 2002. Assessment for groundwater sources in the Central Basin was completed and submitted in March 2003. Since these wells are located in urban areas, they are most vulnerable to the following activities that are associated with contaminants found in the well water; dry cleaning, chemical processing/storage, fertilizer/pesticide storage, metal finishing, and septic system. LADWP closely manages the use of this water by blending it with water from other sources to ensure that the drinking water standards are not exceeded. A copy of the assessment can be obtained by contacting LADWP Regulatory Affairs and Consumer Protection Group at (213) 367-3335.

In December 2002, MWD completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting MWD at (213) 217-6850.



# Water Quality Data

The table below lists all drinking water contaminants that were detected during the 2007 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The District tests regularly for bacteria, trihalomethanes, haloacetic acids, and chlorine in the distribution system and are reported below. The State requires us to monitor certain contaminants less frequently than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, may be more than one year old, which is indicated under parameter.

PARAMETER	PHG or MCLG	MCL	TREATED SURFACE WATER		TYPICAL SOURCE OF CONSTITUENT
			RANGE OF DETECTION	AVERAGE LEVEL	
<b>PRIMARY DRINKING STANDARDS</b>					
<b>INORGANIC CONTAMINANTS</b>					
ALUMINUM (ppm)	0.6	1	ND-0.074	ND	Erosion of natural deposits; residue from some surface water treatment processes
ARSENIC (ppb)	0.004	10	ND-5.4	1.8	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
FLUORIDE (ppm)	1	2	0.15-0.89	0.51	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
NITRATE (AS NO <sub>3</sub> ) (ppm)	45	45	1.8-2.9	2.2	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
<b>DISINFECTION BYPRODUCT PRECURSORS</b>					
TOTAL ORGANIC CARBON (ppm)	NS	TT	1.66-2.18	2.00	Various natural and manmade sources
<b>RADIOLOGICAL CONTAMINANTS</b>					
GROSS ALPHA PARTICLE ACTIVITY (pCi/L)	0	15	ND-5.5	3.6	Erosion of natural deposits
URANIUM (pCi/L)	0.43	20	1.25-4.74	3.42	Erosion of natural deposits
<b>SECONDARY DRINKING WATER STANDARDS</b>					
ALUMINUM (ppb)	600	200	ND-73.5	24.5	Erosion of natural deposits; residue from some surface water treatment processes
TOTAL DISSOLVED SOLIDS (ppm)	NS	1000	243-270	258	Runoff / leaching from natural deposits
SPECIFIC CONDUCTANCE (µS/cm)	NS	1600	310-460	358	Substances that form ions when in water; seawater influence
CHLORIDE (ppm)	NS	500	47.8-60.8	55.9	Runoff / leaching from natural deposits; seawater influence
IRON (ppb)	NS	300	ND-12.2	7.6	Leaching from natural deposits; industrial wastes
SULFATE (ppm)	NS	500	34.3-56.5	46.3	Runoff / leaching from natural deposits; industrial wastes
<b>GENERAL PHYSICAL PARAMETERS</b>					
COLOR (Units)	NS	15	4-5	4.25	Naturally-occurring organic materials
ODOR THRESHOLD (Units)	NS	3	ND-1.00	0.25	Naturally-occurring organic materials
TURBIDITY (Units)	NS	5	ND-0.15	0.09	Soil runoff

\* For treated surface water turbidity, the highest single measurement was 0.24 NTU and the lowest monthly percentage of samples meeting the 0.3 NTU EPA limit was 100%  
 Secondary Drinking Water Standards (Continued next page)

PARAMETER	PHG or MCLG	MCL	TREATED SURFACE WATER		HEALTH EFFECTS
			RANGE OF DETECTION	AVERAGE LEVEL	
<b>UNREGULATED CONTAMINANTS</b>					
BORON (ppb)	NS	1000 (Notification Level)	152-278	210	The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals
<b>GENERAL MINERAL CONSTITUENTS</b>					
BICARBONATE ALKALINITY (ppm)	NS	NS	88-109	97	Leaching from natural deposits
CALCIUM (ppm)	NS	NS	23.8-28.0	26.4	Leaching from natural deposits
MAGNESIUM (ppm)	NS	NS	10-12	10	Leaching from natural deposits
SODIUM (ppm)	NS	NS	40.4-46.7	44.6	Leaching from natural deposits
TOTAL HARDNESS (ppm)	NS	NS	102-136	118	Leaching from natural deposits
pH (pH Units)	NS	NS	7.28-7.52	7.40	Natural acidity/alkalinity of water
TOTAL ALKALINITY (as CaCO <sub>3</sub> ) (ppm)	NS	NS	72-89	79	Leaching from natural deposits
POTASSIUM (ppm)	NS	NS	2.25-3.31	2.73	Leaching from natural deposits

### DISTRIBUTION SYSTEM WATER QUALITY

DISINFECTANTS & DISINFECTION BYPRODUCTS	MCLG OR [MRDLG]	MCL OR [MRDL]	RANGE OF DETECTION	HIGHEST 4-QUARTERLY AVERAGE	TYPICAL SOURCE OF CONSTITUENT
TOTAL CHLORINE (ppm)	[4] as Cl <sub>2</sub>	[4] as Cl <sub>2</sub>	0.53-1.38	0.79	Drinking water disinfectant added for treatment
TOTAL TRIHALOMETHANES (ppb)	NS	80	9.5-97.1	63.1	Byproduct of drinking water chlorination
HALOACETIC ACIDS (ppb)	NS	60	15-37	26	Byproduct of drinking water chlorination
MICROBIAL CONTAMINANTS	MCLG OR [MRDLG]	MCL OR [MRDL]	RANGE OF DETECTION	AVERAGE	TYPICAL SOURCE OF CONSTITUENT
TOTAL COLIFORM BACTERIA	0	NO MORE THAN 1 POSITIVE MONTHLY SAMPLE	0-1	0	Naturally present in the environment

### RESIDENTIAL TAP WATER QUALITY

LEAD AND COPPER (Units)	PHG	ACTION LEVEL	RANGE OF DETECTION	90TH % LEVEL	NUMBERS OF SITES SAMPLED	NUMBER OF SITES ABOVE ACTION LEVEL	TYPICAL SOURCE OF CONSTITUENT
COPPER (ppm) 2005	0.17	1.3	ND-0.76	0.26	12	0	Internal corrosion of household plumbing system; erosion of natural deposits; leaching from wood preservatives
LEAD (ppb) 2005	2	15	ND	ND	12	0	Internal corrosion of household plumbing system; discharge from industrial manufacturers; erosion of natural deposits

### TERMS AND ABBREVIATIONS USED IN THE WATER QUALITY DATA TABLE

**Maximum Contaminant Level (MCL)** is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the PHGs and MCLGs as is economically or technologically feasible.

**Maximum Contaminant Level Goal (MCLG)** is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

**Public Health Goal (PHG)** is the level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

**Maximum Residual Disinfectant Level (MRDL)** is the level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

**Maximum Residual Disinfectant Level Goal (MRDLG)** is the level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLs are set by the USEPA.

**Primary Drinking Water Standards (PDWS)** are MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**Regulatory Action Level (AL)** is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Treatment Technique (TT)** is a required process intended to reduce the level of a contaminant in drinking water.

ppm = parts per million (milligrams per liter)  
ppb = parts per billion (micrograms per liter)

pCi/L = picoCuries per liter  
NA = Not Applicable

ND = None Detected  
NS = No Standard

uS/cm = microSiemens per centimeter  
NTU = Nephelometric Turbidity Unit

– No Sample Taken

# CONTAMINANTS THAT MAY BE PRESENT IN WATER

The sources of drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over land surface or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include:

**Microbial contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Inorganic contaminants**, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

**Pesticides and herbicides**, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential use.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.

**Radioactive contaminants**, that can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure tap water is safe to drink, the USEPA and CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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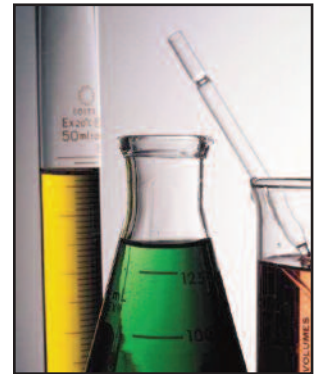
## THE QUALITY OF YOUR WATER

**Lead and Copper:** During 2005, we conducted lead and copper sampling from several high-risk homes in the District as required by CDPH. The 90th percentile result for copper was 0.26 milligrams per liter and below detectable levels for lead. These results are well below the regulatory Action Levels for lead and copper in drinking water. The next round of lead and copper monitoring is scheduled for 2008.

**Arsenic:** While your drinking water meets the current standard of arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

**Cryptosporidium:** Cryptosporidium is a microscopic organism that causes a gastro-intestinal disease called cryptosporidiosis which may cause diarrhea, headache, abdominal cramps, nausea, vomiting, and low grade fever. The infectious microorganism can be transmitted through ingestion of contaminated food, drinking water, or by direct contact with the fecal matter of infected persons or animals.

The chance of its presence in the water supply is extremely small because it is being monitored on a regular basis and very low levels, hundreds of times lower than those reported in other parts of the Country, have been detected in untreated water. Multiple-barrier treatment which includes coagulation, flocculation, filtration, and disinfection at LADWP treatment plants further minimize the chance of its presence in treated water.



While the general public is at a very low risk of contracting Cryptosporidium, immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risks of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

# Bottled Water, Home Treatment Devices, and Softeners

Bottled water need not be purchased for health reasons, since tap water meets the Federal and State drinking water standards. If taste is an issue, bottled water might be the answer, but keep in mind that it is over 1,000 times more expensive than tap water.

Installation of a home treatment unit is a personal matter. These devices are not required to make the water meet the Federal and State drinking water standards. In fact, if not properly maintained, these devices may actually cause water quality problems. However, some people are concerned about the taste of their drinking water. If taste is an issue, then a home treatment unit might be appropriate. All units require maintenance and should be bought from a reputable dealer. They should also be tested and validated against accepted performance standards like those used by the National Sanitary Foundation (NSF).

Hardness in drinking water is caused by two non-toxic minerals: calcium and magnesium. Hard water reduces the amount of lather or suds produced by soap. Hard water also tends to leave deposits such as rings in the bathtub, scales on cooking pots and irons, and spots on glassware. At a hardness level above 120 milligrams per liter, a water softener might be considered to reduce deposits in the hot water system and to make washing easier. Distilled water may be used in place of drinking water in irons to prevent deposits.

Water softeners generally replace the non-toxic hardness minerals in the water with sodium. Although the amount of sodium produced is relatively insignificant in comparison to the sodium found in food, people with sodium restricted diets should consult their doctor or install a softener for their hot water supply only.



# Water Conservation Information

Water is an essential resource, not a commodity. The arid climate in Southern California limits our fresh water supply. Conserving water, or being "water wise," protects our natural water supplies, reduces the risk of water shortages during spring and summer months, and reduces your water bill. Water conservation is not as complicated or demanding as you might think.

In addition to protecting the quality of water delivered to you, we also promote and implement water conservation programs in your area. You can conserve water at home and save money by observing the following practical guidelines:

- Install a low flow toilet or use a water displacement device in your toilet and save 2 to 6 gallons of water for every flush. Check the flapper in your toilet to make sure water is not constantly leaking into the toilet bowl.
- Run your dishwasher or washing machine with only full loads and save 300 to 800 gallons every month.
- Install a low flow showerhead and save a gallon of water during each minute of your shower.
- Up to 70% of residential water use occurs outdoors. When designing the landscaping around your home, ask your local gardening store for advice on plants and turf that, once established, will require minimal, if any, watering. Group plants with similar water needs together. Consider minimizing the amount of turf areas in your landscaping because grass usually requires the most water.
- Sweep your sidewalks and driveways instead of hosing them and save up to 4 gallons of water per minute that you would have spent using the hose.
- Check your pipes and faucets regularly for leaks and repair them promptly. Call our office at (800) 675-HELP to report leaks in our system.
- Attend a Smart Gardening Workshop for tips on landscaping techniques to irrigate efficiently and protect the environment. For more information visit [www.888CLEANLA.com](http://www.888CLEANLA.com)
- Visit [www.bewaterwise.org](http://www.bewaterwise.org) or [www.lacwaterworks.org](http://www.lacwaterworks.org) for practical "how-to" information on water conservation.

If you have any questions or comments regarding water conservation, visit [www.888cleanLA.com](http://www.888cleanLA.com). You may also call 1-888-CLEANLA or contact Ms. Melinda Barrett at (626) 300-3362.