LOS ANGELES COUNTY WATERWORKS DISTRICTS

2004 ANNUAL WATER QUALITY REPORT

LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 40, REGION 39, ROCK CREEK

DEAR CUSTOMER:

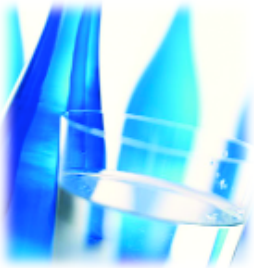
The Los Angeles County Waterworks Districts are pleased to provide you with our 2004 Annual Water Quality Report. We are committed to serving you a reliable supply of high quality water that meets State and Federal standards. Our on-going efforts include increasing the capacity and reliability of the 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 2004, your drinking water met or exceeded 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.

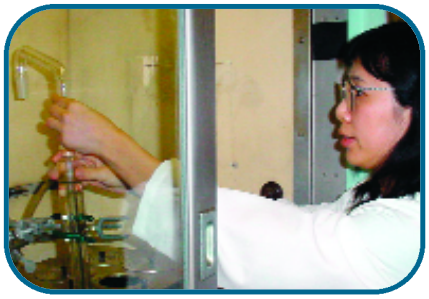
WATER QUALITY MONITORING



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

To meet these regulations, the District has contracted with a State-certified laboratory to conduct all water quality analyses. Analyses are performed on samples from the source well and the distribution system. The well is tested for chemical, physical, radioactive, and bacteriological parameters as required by Federal and State regulations. We also test for additional organic and inorganic chemicals that are not yet regulated.

We also monitor the water quality throughout the distribution system. Several key locations within the distribution system have been selected for this purpose. Every week, each location is tested for bacteria, color, turbidity, odor, and disinfectant level to ensure that you receive safe and high quality drinking water. 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. Gordon Phair at (661) 942-1157 Ext. 247 or Ms. Denise Noble at (626) 300-3364. To view this report on the internet, please visit our website at **http://ladpw.org/wsm/waterqualityrpt.cfm**.

THE SOURCE OF YOUR WATER AND ITS TREATMENT

During 2004, approximately 50 percent of the water served in the Rock Creek Region of the District was groundwater drawn from the Region's only well. The remainder of the water for the Region came through a connection between the Rock Creek and Pearblossom Regions of the District. The Pearblossom Region is served by a blend of groundwater from the Region's wells and treated surface water purchased from the Antelope Valley-East Kern Water Agency (AVEK). AVEK gets its water from the Sacramento River/San Joaquin Delta via the State Water Project

The surface water from AVEK is treated at their treatment plants 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. The groundwater the District serves is also disinfected with chlorine for the same reasons.

SOURCE WATER ASSESSMENT

A source water assessment was conducted for all the active sources in the Los Angeles County Waterworks District No. 40, Region 39, Rock Creek water system in December 2001. The well is considered most vulnerable to the following activities, although no associated contaminants have been detected in the water produced by this well.

A copy of the complete assessment may be viewed at: DHS Los Angeles District Office, 1449 West Temple Street Room 202, Los Angeles CA, 90026, or by contacting Mr. Jeff O'Keefe at (213) 580-5723.

VULNERABLE WELLS	POSSIBLE CONTAMINATING ACTIVITIES
39-1	WATER SUPPLY WELLS
	TRANSPORTATION CORRIDORS – ROADS/STREETS
	SURFACE WATER – STREAMS/LAKES/RIVERS

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
SI = Saturation Index (Langelier)

NA = Not Applicable
ND = None Detected
NS = No Standard

NTU = Nephelometric Turbidity Unit
MFL = Million Fibers per Liter
µmhos/cm = micromhos per centimeter

WATER QUALITY DATA

The table below lists all drinking water contaminants that were detected during the 2004 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The District tests weekly for bacteria in the distribution system and none was detected during 2004. Trihalomethanes, haloacetic acids, and chlorine are also tested for regularly 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.

PARAMETER	PHG	MCL	TREATED SURFACE WATER		CHLORINATED GROUNDWATER		TYPICAL SOURCE OF CONSTITUENT
			RANGE OF DETECTION	AVERAGE LEVEL	RANGE OF DETECTION	AVERAGE LEVEL	
PRIMARY DRINKING WATER STANDARDS							
INORGANIC CONTAMINANTS							
FLUORIDE (ppm)	1	2	0.10	0.10	0.22	0.22	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
NITRATE AS NO_3 (ppm)	45	45	4.0	4.0	ND - 2.01	1.01	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
RADIOACTIVE CONTAMINANTS							
GROSS ALPHA PARTICLE ACTIVITY (pCi/L)	NS	15	1.23 - 2.12	1.47	3.32 - 4.56	3.77	Erosion of natural deposits
GROSS BETA PARTICLE ACTIVITY (pCi/L)	NS	50	1.55	1.55	--	--	Decay of natural and man-made deposits
RADIUM 226 (pCi/L)	NS	NS	ND - 0.09	0.02	--	--	Erosion of natural deposits
TRITIUM (pCi/L)	NS	20000	32.80	32.80	--	--	Decay of natural and man-made deposits
URANIUM (pCi/L)	NS	20	0.60 - 1.47	*	2.03	*	Erosion of natural deposits
UNREGULATED CONTAMINANTS							
BORON (ppb)	NS	100 (ACTION LEVEL)	--	--	99 - 153	126	Erosion of natural deposits, industrial and agricultural discharges
CHROMIUM 6 (ppb)	NS	NS	ND	ND	ND	ND	Erosion of natural deposits, industrial waste discharges
VANADIUM (ppb)	NS	50 (ACTION LEVEL)	--	--	4.65 - 5.72	5.20	Erosion of natural deposits, burning of fuels
SECONDARY DRINKING WATER STANDARDS - AESTHETIC STANDARDS							
CHLORIDE (ppm)	NS	500	82 - 84	83	3.25	3.25	Runoff/leaching from natural deposits; seawater influence
COLOR (units)	NS	15	<5	<5	0	0	Naturally-occuring organic materials
CORROSIVITY (LANGELIER INDEX)	NS	NON-CORROSIVE	**	**	0.47	0.47	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors
ODOR - THRESHOLD (TON)	NS	3	<1	<1	0	0	Naturally-occuring organic materials
SPECIFIC CONDUCTANCE (µmhos/cm)	NS	1600	365 - 618	470	618	618	Substances that form ions when in water; seawater influence
SULFATE (ppm)	NS	500	66	66	118	118	Runoff/leaching from natural deposits; industrial wastes
TOTAL DISSOLVED SOLIDS (ppm)	NS	1000	320	320	382	382	Runoff/leaching from natural deposits industrial wastes
TURBIDITY (ntu)**	NS	5	0.01 - 0.21	0.03	0.11	0.11	Soil runoff

-- No sample taken

PARAMETER	PHG	MCL	TREATED SURFACE WATER		CHLORINATED GROUNDWATER		TYPICAL SOURCE OF CONSTITUENT
			RANGE OF DETECTION	AVERAGE LEVEL	RANGE OF DETECTION	AVERAGE LEVEL	
ADDITIONAL CONSTITUENTS OF INTEREST							
TOTAL ALKALINITY as $CaCO_3$ (ppm)	NS	NS	69 - 72	71	--	--	Leaching from natural deposits
BICARBONATE ALKALINITY (ppm)	NS	NS	86	86	256	256	Leaching from natural deposits
CALCIUM (ppm)	NS	NS	23	23	78.60	78.60	Leaching from natural deposits
TOTAL HARDNESS as $CaCO_3$ (ppm)	NS	NS	120	120	28	28	Leaching from natural deposits
MAGNESIUM (ppm)	NS	NS	14 - 15	15	24.80	24.80	Leaching from natural deposits
pH (pH units)****	NS	NS	6.30 - 7.80	6.99	7.72	7.72	Natural acidity/alkalinity of water
POTASSIUM (ppm)	NS	NS	3 - 4	3.70	--	--	Leaching from natural deposits
SODIUM (ppm)	NS	NS	62 - 64	63	23.50	23.50	Leaching from natural deposits

*** Uranium is only tested for if Gross Alpha Particle Activity is detected at a level greater than or equal to 5 pCi/L. Therefore, an average level of detection is not applicable. However, additional samples may have been taken due to changes in regulations.**

**** A corrosion inhibitor is added to the treated water before entry into the distribution system.**

***** A measure of cloudiness; high turbidity can hinder the effectiveness of disinfectants**

****** Recommended 6.5 - 8.5 with respect to corrosion control**

DISTRIBUTION SYSTEM WATER QUALITY					
DISINFECTANTS & DISINFECTION BY-PRODUCTS	MCLG or [MRDLG]	MCL or [MRDL]	RANGE OF DETECTION	HIGHEST 4-QUARTERLY AVERAGE	TYPICAL SOURCE OF CONSTITUENT
TOTAL CHLORINE (ppm)	[4.0]	[4.0]	0.11 - 1.75	0.95	Water treatment - Disinfectant used to kill microbes
TOTAL TRIHALOMETHANES (ppb)	NS	80	7.30 - 90	39.71	Byproduct of drinking water chlorination
TOTAL HALOACETIC ACID (ppb)	NS	60	0 - 32.10	13.89	Byproduct of drinking water chlorination
RESIDENTIAL TAP WATER QUALITY					
LEAD AND COPPER (UNITS)	PHG	ACTION LEVEL	RANGE OF DETECTION	90th % LEVEL	TYPICAL SOURCE OF CONSTITUENT
COPPER (ppm)	0.17	1.3	0 - 0.17	0.06	Corrosion of plumbing and erosion of natural deposits
LEAD (ppb)	2	15	0	0	Corrosion of plumbing and erosion of natural deposits

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, which 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, which 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 DHS prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DHS 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).

THE QUALITY OF YOUR WATER

Lead and Copper: During 2002, we conducted lead and copper sampling from several high-risk homes in the Region as required by DHS. The 90th percentile result for copper was 0.06 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 2005.

Trihalomethanes: Some people who use water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.

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 AVEK 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).

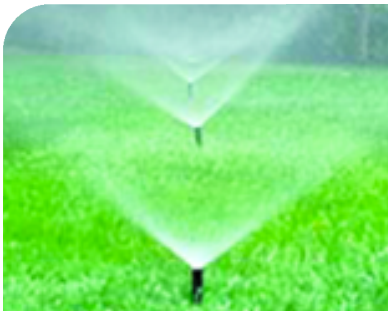
BOTTLED WATER, HOME TREATMENT DEVICES, AND SOFTENERS

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. In Southern California, our arid climate 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:

- Water the lawn as necessary during early morning hours and save 30 to 50 gallons per day.
- Run your dishwasher or washing machine with a full load and save 300 to 800 gallons every month.
- Sweep your sidewalks and driveways instead of hosing them to save about 150 gallons each time.
- Install a low flow toilet or use a water displacement device in your existing toilet and save 3.5 to 4.5 gallons of water on every flush.
- Install a low-flow shower head and save up to 1800 gallons per person per year.
- Visit **www.h20use.org** or **http://ladpw.org/wsm/conservation/** for practical "how-to" information on water conservation.
- Call (866) 648-2925 to request a survey of your normal water use and recommendations for water conserving measures to reduce your usage.
- Check your pipes and faucets regularly for leaks and repair them promptly. Call our office at 1-800-675-4357 to report leaks in our system.
- Evaluate your outdoor landscaping and water use. About two-thirds of residential water is used for landscaping purposes. Choose landscaping that is native to your surroundings and learn how much and when to irrigate it.
- Visit our booth at the Annual Water Fair and Festival Garden Party on May 21, 2005 and May 22, 2005 at the Water Conservation Garden Park next to the Palmdale Water District at 2029 E. Avenue Q, Palmdale.

If you have any questions or comments regarding water conservation, visit www.888cleanLA.com. You may also call 1-888-CLEANLA or contact Mr. David Rydman at (626) 300-3351.