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.

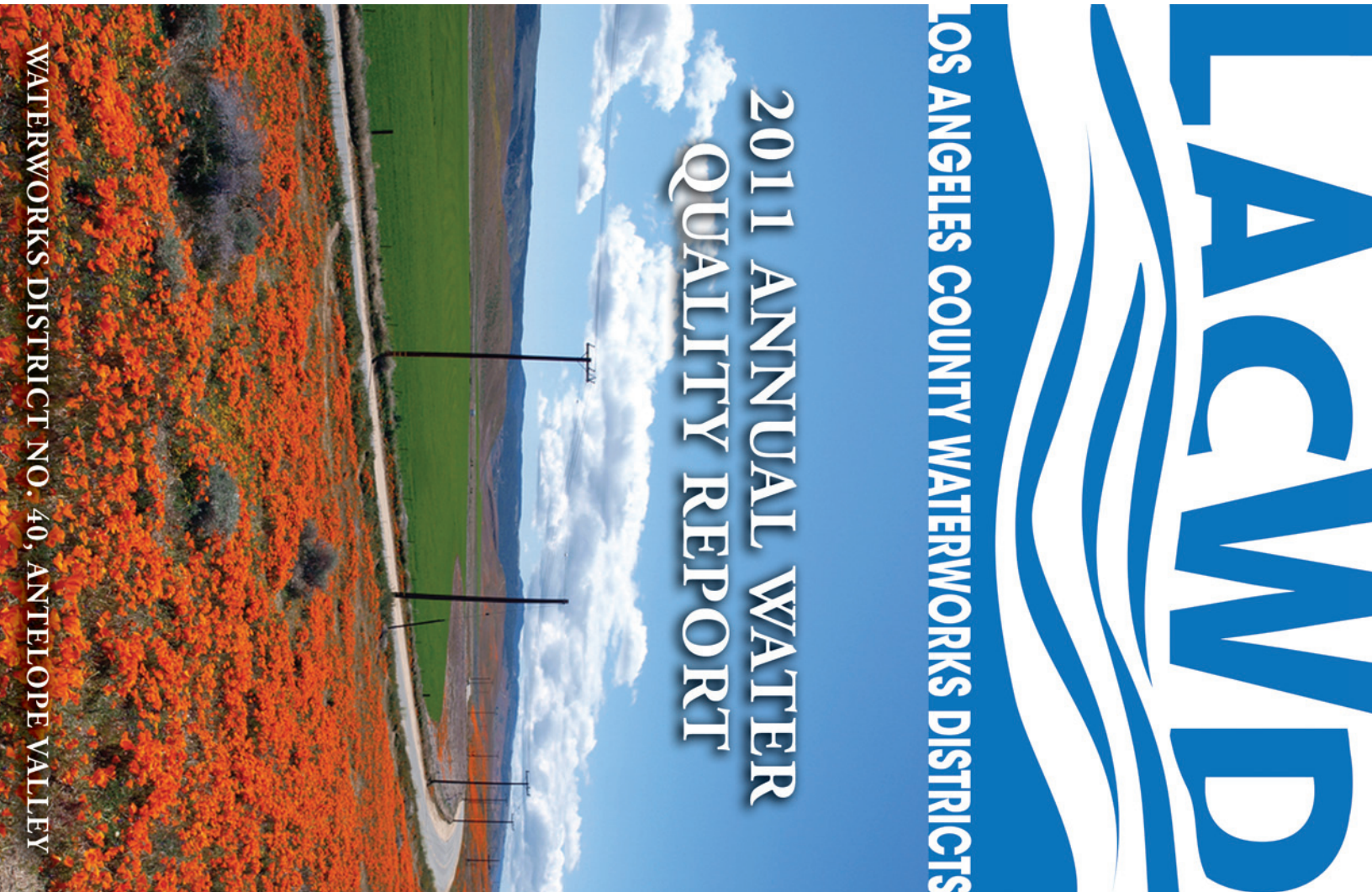
The Los Angeles County Waterworks Districts welcome your comments on our Annual Water Quality Report. For questions or comments regarding water quality or this report, please contact Mr. Timothy Chen at (626) 300-3342. To view this report on the internet, please visit our website at **www.lacwaterworks.org.**

Make every drop count in this drought. Visit **www.lacwaterworks.org** for rebate information and more water saving tips.

PUBLIC WORKS

900 S. Fremont Ave.
Alhambra, CA 91803

To the Water Customer at:



LACWD

LOS ANGELES COUNTY WATERWORKS DISTRICTS

2011 ANNUAL WATER QUALITY REPORT

WATERWORKS DISTRICT NO. 40, ANTELOPE VALLEY

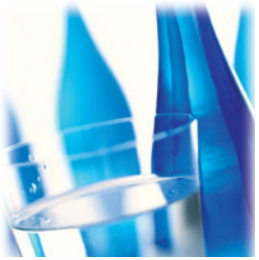
LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 40, ANTELOPE VALLEY WATER QUALITY REPORT FOR CALENDAR YEAR 2011

The Los Angeles County Waterworks District is pleased to provide you with our 2011 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 2011, 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 Public Health (CDPH) 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. The source water is tested for chemical, physical, radiological, and bacteriological parameters as required by Federal and State regulations. We also test for additional organic and inorganic chemicals that are not regulated.

Key locations within the distribution system have been selected to monitor water quality. Every week, 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, turbidity, and disinfection by-products monthly. 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.

WHERE YOUR WATER COMES FROM

The sources of drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. The District's sources of drinking water in the Antelope Valley are local groundwater and surface ("imported") water purchased from the Antelope Valley-East Kern Water Agency (AVEK). AVEK's water primarily comes from the State Water Project (SWP), the 444 mile-long California Aqueduct that transports water from the Sacramento-San Joaquin River Delta to Southern California SWP contractors for use as agricultural or urban supply.

The surface water in your region comes from one of AVEK's facilities, Quartz Hill Water Treatment Plant (QHWTP) or Eastside Water Treatment Plant (EWTP). Water quality information is presented in the table contained in this report.

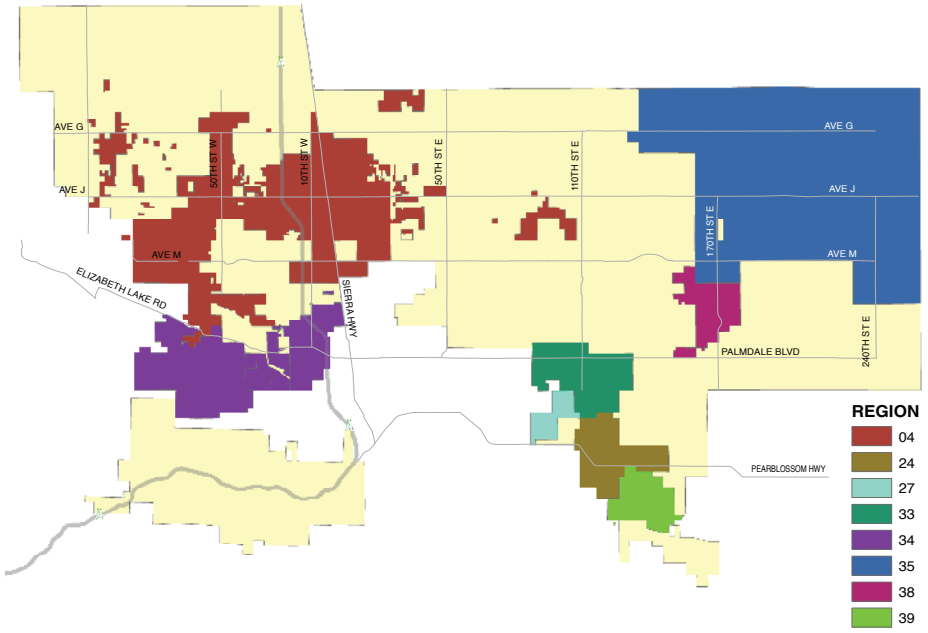
Regions 4 & 34 provides water to customers in Lancaster and Desert View Highlands. Customers received approximately 34% local groundwater and 66% SWP water from QHWTP in 2011.

Regions 24, 27, & 33 provides water to customers in Pearblossom, Littlerock and Sun Village. Customers received approximately 52% local groundwater and 48% SWP water from EWTP in 2011.

Region 35 provides water to customers in Northeast Los Angeles County. Customers received 100% local groundwater in 2011.

Region 38 provides water to customers in Lake Los Angeles. Customers received approximately 66% local groundwater and 34% SWP water from EWTP in 2011.

Region 39 provides water to customers in Rock Creek. Customers received approximately 100% local groundwater in 2011.



SOURCE WATER ASSESSMENT

CDPH completed a 2006 update of the Source Water Assessment (SWA) for the California Aqueduct, AVEK's water source. The SWA is used evaluate the vulnerability of water sources to contamination and helps determine whether more protective measures are needed. Water supplies from the Sacramento-San Joaquin River Delta are most vulnerable to contamination from municipal, industrial and agricultural activities. Also influencing the quality of water pumped from the Delta is the impact of the estuarial nature of the Delta and the naturally occurring salt-water intrusion which is dependent to a large extent on the inflow from the contributing rivers. A copy of the complete assessment can be obtained by contacting AVEK by phone at (661) 943-3201.

An SWA for the District's groundwater sources was completed in January 2002. The wells in the Antelope Valley region are considered vulnerable to various contaminating activities including the following; dry cleaners, high density housing, sewer collection/septic systems, agriculture, automobile gas stations/repair and body shops, chemical processing/storage, above ground storage tanks, and other commercial/industrial activities. A copy of the complete assessment can be obtained by contacting CDPH by phone at (818) 551-2004.

EDUCATIONAL INFORMATION

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land 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 from 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 storm water 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 storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application, 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 that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department 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 some 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).

Some people may be more vulnerable to contaminants in drinking water than the general population. 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 risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline.

ARSENIC: While your drinking water meets the federal and state standard for 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.

LEAD AND COPPER: Every three years, the District is required to sample for lead and copper at specific consumer taps. The results for lead and copper are reported as the 90th percentile, which is the result that is greater than 90% of all the results. A system is out of compliance if the 90th percentile value exceeds the Regulatory Action Level (AL). If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead

NITRATE: Nitrate in drinking water at levels above 45 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

WATER QUALITY DATA

The table below lists all drinking water contaminants that were detected during the 2011 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. Trihalomethanes, haloacetic acids, and chlorine are also tested 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.

PARAMETER	UNITS	MCL	PHG	EASTSIDE PLANT SURFACE WATER		QUARTZ HILL PLANT SURFACE WATER		REGION 4 &34 GROUNDWATER		REGION 24, 27 & 33 GROUNDWATER		REGION 35 GROUNDWATER		REGION 38 GROUNDWATER		REGION 39 GROUNDWATER	
				RANGE OF DETECTION	AVERAGE LEVEL	RANGE OF DETECTION	AVERAGE LEVEL	RANGE OF DETECTION	AVERAGE LEVEL	RANGE OF DETECTION	AVERAGE LEVEL	RANGE OF DETECTION	AVERAGE LEVEL	RANGE OF DETECTION	AVERAGE LEVEL	RANGE OF DETECTION	AVERAGE LEVEL
PRIMARY DRINKING WATER STANDARDS																	
Aluminum	mg/L	1	0.6	ND	ND	ND	ND	ND - 0.56	0.03	ND	ND	ND	ND	ND - 0.05	0.03	ND	ND
Arsenic	µg/L	10	0.004	ND	ND	ND	ND	ND - 11.8	3.5	ND	ND	2.0	2.0	ND - 2.1	ND	ND	ND
Chromium	µg/L	50	MCLG=100	ND	ND	ND	ND	ND - 20.3	6.4	ND	ND	13.4	13.4	ND - 11.6	5.8	ND	ND
Dibromochloropropane (DBCP)	µg/L	0.2	0.0017					ND	ND	ND - 0.015	0.002	ND	ND	ND	ND	ND	ND
Fluoride	mg/L	2	1	ND	ND	ND	ND	ND - 0.76	0.38	0.17 - 0.31	0.25	0.33	0.33	ND - 0.32	0.16	0.45	0.45
Gross Alpha Particle Activity	pCi/L	15	MCLG=0					ND - 5.75	2.10	3.15 - 4.86	3.71	1.81	1.81	4.02	4.02	3.14	3.14
Gross Beta Particle Activity	pCi/L	50	MCLG=0					ND - 1.84	0.66	0.62	0.62			1.41	1.41		
Nitrate (as NO_3)	mg/L	45	45	2	2	2.2	2.2	ND - 21.9	3.8	ND - 41.8	24.0	3.9	3.9	3.1 - 5.9	4.5	ND	ND
Radium 226	pCi/L	(a)	0.05					ND - 0.56	0.11	ND - 0.13	0.06	0.53	0.53	0.10	0.10	0.17	0.17
Radium 228	pCi/L	(a)	0.019					ND - 2.91	0.23	ND - 0.09	0.02	0.28	0.28	ND	ND	0.71	0.71
Selenium	µg/L	50	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND - 5.6	2.8	ND	ND
Total Coliform Bacteria	% positives	5	MCLG=0					0 - 0.5	0.04	0	0	0	0	0	0	0	0
Uranium	pCi/L	20	0.43					ND - 8.10	2.00	1.32 - 3.29	2.42	1.65	1.65	2.09 - 2.20	2.14	0.80	0.80
Chlorine Residual	mg/L	MRDL=4.0	MRDLG=4					0.85 - 1.15	0.97 (b)	0.60 - 0.97	0.78 (b)	0.69 - 1.41	1.06 (b)	0.77 - 1.16	0.96 (b)	0.49 - 1.53	0.83 (b)
Haloacetic Acids (HAA5)	µg/L	60	n/a					ND - 17	9 (b)	ND - 6	9 (b)	ND - 4	1 (b)	ND - 10	6 (b)	ND - 9	12 (b)
Total Trihalomethanes (TTHMs)	µg/L	80	n/a					ND - 58	36 (b)	5 - 41	43 (b)	8 - 24	15 (b)	ND - 68	29 (b)	5 - 16	32 (b)
SECONDARY DRINKING WATER STANDARDS																	
Aluminum	µg/L	200	n/a	ND	ND	ND	ND	ND - 560	25	ND	ND	ND	ND	ND - 52	26	ND	ND
Chloride	mg/L	500	n/a	23	23	24	24	ND - 99.6	24.5	4.6 - 41.0	18.7	6.2	6.2	17.3 - 106	61.7	3.3	3.3
Color	unit	15	n/a	<1 - <5	<5	<1 - <5	<5	0 - 5	<1	0	0	0	0	0	0	0	0
Copper	µg/L	1000	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	71.4	71.4
Iron	µg/L	300	n/a	ND	ND	ND	ND	ND - 1510	62	ND	ND	ND	ND	ND - 130	65	ND	ND
Manganese	µg/L	50	n/a	ND	ND	ND	ND	ND - 41	3	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance	µS/cm	1600	n/a	240	240	157 - 439	277	208 - 1100	397	354 - 808	546	367	367	434 - 587	511	548	548
Sulfate	mg/L	500	n/a	35	35	35	35	ND - 316	53	39 - 94	59	64	64	68 - 75	72	69	69
Total Dissolved Solids (TDS)	mg/L	1000	n/a	140	140	140	140	138 - 740	258	202 - 558	351	250	250	258-368	313	344	344
Turbidity	NTU	5	n/a	0.02 - 0.10	0.03	ND - 0.23	0.04	ND - 3.31	1.01	0.14 - 0.44	0.27	0.21	0.21	0.13 - 0.28	0.21	0.20	0.20
Zinc	mg/L	5	n/a	0.52	0.52	0.55	0.55	ND - 62.7	1.6	ND	ND	ND	ND	ND - 4.9	2.5	114	114

PARAMETER	UNITS	MCL	PHG	EASTSIDE PLANT		QUARTZ HILL PLANT		REGION 4 &34		REGION 24, 27 & 33		REGION 35		REGION 38		REGION 39	
				SURFACE WATER		SURFACE WATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER	
				RANGE OF DETECTION	AVERAGE LEVEL	RANGE OF DETECTION	AVERAGE LEVEL	RANGE OF DETECTION	AVERAGE LEVEL	RANGE OF DETECTION	AVERAGE LEVEL	RANGE OF DETECTION	AVERAGE LEVEL	RANGE OF DETECTION	AVERAGE LEVEL	RANGE OF DETECTION	AVERAGE LEVEL
UNREGULATED CONTAMINANTS																	
Bicarbonate (as HCO_3)	mg/L	n/a	n/a	47	47	46	46	69 - 215	118	96 - 206	154	124	124	78 - 138	108	193	193
Boron	µg/L	NL=1000	n/a					ND - 760	158	ND - 120	60	34 - 59	47	120	120	126	126
Calcium	mg/L	n/a	n/a	14	14	13	13	ND - 100	27	42 - 74	59	28	28	28 - 36	32	70	70
Carbonate (as CO_3)	mg/L	n/a	n/a	<1.8	<1.8	<1.8	<1.8	ND - 28	5.9	ND - 28.0	5.6	ND	ND	ND	ND	27	27
Chromium, Hexavalent (CrVI)	µg/L	n/a	n/a					ND - 15.4	5.9	ND - 3.5	1.6	9.8 - 12.4	11.1	9.0	9.0	ND	ND
Magnesium	mg/L	n/a	n/a	6.8	6.8	6.5	6.5	ND - 45	6.0	9.0 - 22.4	15.1	9.7	9.7	6.1 - 9.7	7.9	22	22
pH	unit	n/a	n/a	5.8 - 7.9	6.6	6.1 - 7.6	6.5	6.7 - 8.7	7.8	6.7 - 8.2	7.4	8.2	8.2	7.0 - 7.4	7.2	7.4	7.4
Potassium	mg/L	n/a	n/a	<2.0	<2.0	<2.0	<2.0										
Sodium	mg/L	n/a	n/a	21	21	21	21	18 - 134	53	21 - 94	46	43	43	39 - 70	55	20	20
Total Alkalinity (as $CaCO_3$)	mg/L	n/a	n/a	38	38	38	38										
Total Hardness	mg/L	n/a	n/a	62	62	60	60	ND - 435	91	135 - 272	208	110	110	120 - 130	125	264	264
Total Organic Carbon (TOC)	mg/L	TT	n/a	1.1 - 2.2	1.5	1.1 - 2.2	1.5										
Trichloropropane (1,2,3-TCP)	µg/L	NL=0.005	n/a					ND	ND	ND - 15	ND	ND	ND	ND	ND	ND	ND
Vanadium	µg/L	NL=50	n/a					ND - 33.5	13.4	3.0 - 12.9	9.8	8.4 - 12.3	10.4	8.0	8.0	5.2	5.2
LEAD AND COPPER RULE (c)																	
Copper (Cu)	mg/L							ND - 0.98		ND - 0.51		ND - 0.09		ND - 0.44		ND - 0.25	
Lead (Pb)	µg/L							ND - 6.5		ND		ND		ND		ND - 7.3	
90th Percentile Value (Cu)	mg/L	AL=1.3	0.3					0.54		0.39		0.08		0.33		0.18	
Number of Samples Exceeding AL (Cu)								0 out of 54		0 out of 21		0 out of 14		0 out of 30		0 out of 10	
90th Percentile Value (Pb)	µg/L	AL=15	0.2					ND		ND		ND		ND		5.4	
Number of Samples Exceeding AL (Pb)								0 out of 54		0 out of 21		0 out of 14		0 out of 30		0 out of 10	

TERMS AND ABBREVIATIONS USED IN THE WATER QUALITY DATA TABLE

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

Public Health Goal (PHG): 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.

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

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

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

FOOTNOTES:

(a) Combined Radium has an MCL of 5 pCi/L. Radium 226 and Radium 228 do not have an MCL

(b) Values reflect the Highest Running Annual Average (HRAA). HRAA is the highest of all Running Annual Averages (RAAs). RAA is a calculated average of all the samples collected within quarterly 12-month periods.

mg/L = Milligrams per liter (parts per million)
µg/L = Micrograms per liter (parts per billion)
pCi/L = PicoCuries per liter
ND = Non-detect
n/a = Not Applicable
µS/cm = MicroSiemens per centimeter
NTU = Nephelometric turbidity unit
NL = Notification level
TON = Threshold Order Number

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 Sanitation 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 TIPS

In addition to protecting the quality of water delivered to you, we also promote and implement water conservation programs for the Districts' customers. For tips on how to conserve water and to learn more about the programs we offer, visit www.lacwaterworks.org or contact Rea Gonzalez at (626) 300-3338.

We can all take these simple steps to conserve water:

Indoor:

- Fix indoor faucet and toilet leaks. Just a drip can waste more than 10,000 gallons per month.
- Turn off the water while you brush your teeth or shave.
- Take shorter showers and install a water efficient showerhead.
- Wash only full loads in the dishwasher and washing machine.

Outdoor:

- Water according to current weather and season.
- Adjust your sprinkler heads so they water the yard, not the sidewalk or street.
- Landscape your yard and garden with California native and drought-tolerant plants. These plants are accustomed to local weather and soil conditions and thrive with little summer watering. Using them not only saves water, but saves maintenance time and produces a habitat for native birds, beneficial insects and wildlife. The best time to plant native plants is between October and May each year.