

P L E A S E R E A D

IMPORTANT INFORMATION



City of Los Angeles

2005

Water Quality Report



Los Angeles  Department of Water & Power

*We're Working for LA!
Water for Life, Power to LA*

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Our mission is to
 provide our customers
 with reliable, high quality,
 and competitively priced
 water services in a safe,
 publicly and environmentally
 responsible manner.

Contact Information

ABOUT THE LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP)

LADWP, the largest municipal utility in the nation, was established more than 100 years ago to provide a reliable and safe water and electric supply to the City's 3.98 million residents and businesses.

LADWP is governed by a five-member Board of Water and Power Commissioners, appointed by the Mayor and confirmed by the City Council.

The Board meets regularly on the first and third Tuesdays of each month at 1:30 p.m. Meetings are held at:

Los Angeles Department of Water and Power
 111 North Hope Street, Room 1555H
 Los Angeles, CA 90012-2694

The meeting agenda is available to the public on the Thursday prior to the week of the meeting. You can access the Board agenda at www.ladwp.com or by calling (213) 367-1351.

For general information about LADWP, call 1-800-DIAL DWP (1-800-342-5397) or visit www.ladwp.com.

For questions regarding water quality, call the LADWP Water Quality Investigators Unit at (213) 367-3182.

For questions regarding this report, please call Cesar Vitangcol at (213) 367-1767.

Want to know more about your drinking water and related regulations?

Los Angeles Department of Water and Power www.ladwp.com
 California Department of Health Services (CDHS) www.dhs.ca.gov/ps/ddwem
 U.S. Environmental Protection Agency (EPA) www.epa.gov

Overview

LADWP Water Meets or Surpasses All Water Quality Standards

I am pleased to report that LADWP consistently provided the City of Los Angeles with high quality drinking water in the year 2005. Last year, all 220 billion gallons of water supplied to our 3.98 million customers met or surpassed all health-based drinking water standards. These standards are set by the U.S. Environmental Protection Agency (EPA) and the State of California Department of Health Services (CDHS) Drinking Water Program.

This high quality water is achieved through the protection of water sources, application of state-of-the-art water treatment processes, prudent facilities maintenance and operations, and vigilant monitoring and testing of our water.

LADWP conducted more than 347,900 field and laboratory tests on more than 25,000 samples collected throughout the year for both regulated contaminants such as arsenic, chromium, lead, and disinfection by-products, as well as contaminants such as radon that are not yet regulated.

This report summarizes the results of those water quality tests. It also provides more specific information about the quality of the water served in your area of the city. Its purpose is to help you to make informed choices about the water you drink.

— James B. McDaniel, Chief Operating Officer - Water System

Drinking Water and **Your Health**

Notice from the EPA

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Why? Because the sources of drinking water (both tap 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 materials, and can pick up substances resulting from the presence of animal or human activity.

However, the presence of contaminants does not necessarily indicate that the water poses a health risk. In order to ensure that tap water is safe to drink, the EPA, and the California Department of Health Services (CDHS) enforce regulations that limit the amount of certain contaminants in water provided by public water systems. CDHS regulations also establish limits for the same contaminants in bottled water to ensure the same protection for the public.

Contaminants that may be present in source waters 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, can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- ▶ **Radioactive contaminants**, that can be naturally occurring or be the result of oil and gas production and mining activities.
- ▶ **Organic chemical contaminants**, including synthetic and volatile 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.
- ▶ **Pesticides and herbicides** that may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Learn more about contaminants and potential health effects by calling EPA's Safe Drinking Water Hotline at (800) 426-4791 or visiting its website at www.epa.gov.

Health-Related Notices

Precautions For People With Weakened Immune Systems

Some people may be more vulnerable to contaminants in drinking water than the general population. People with weakened immune systems may have undergone chemotherapy treatment, received organ transplants, suffer from HIV/AIDS or other immune system disorders. Some elderly and infants can be particularly at risk from infection. People with these types of health challenges should seek advice about drinking water from their health care providers. Guidelines from the EPA and Centers for Disease Control (CDC) offer ways to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants. These are available at no cost by contacting the EPA's Safe Drinking Water Hotline at (800) 426-4791, or visiting its Web site at www.epa.gov.

Sensitivity to Chlorine and Chloramines

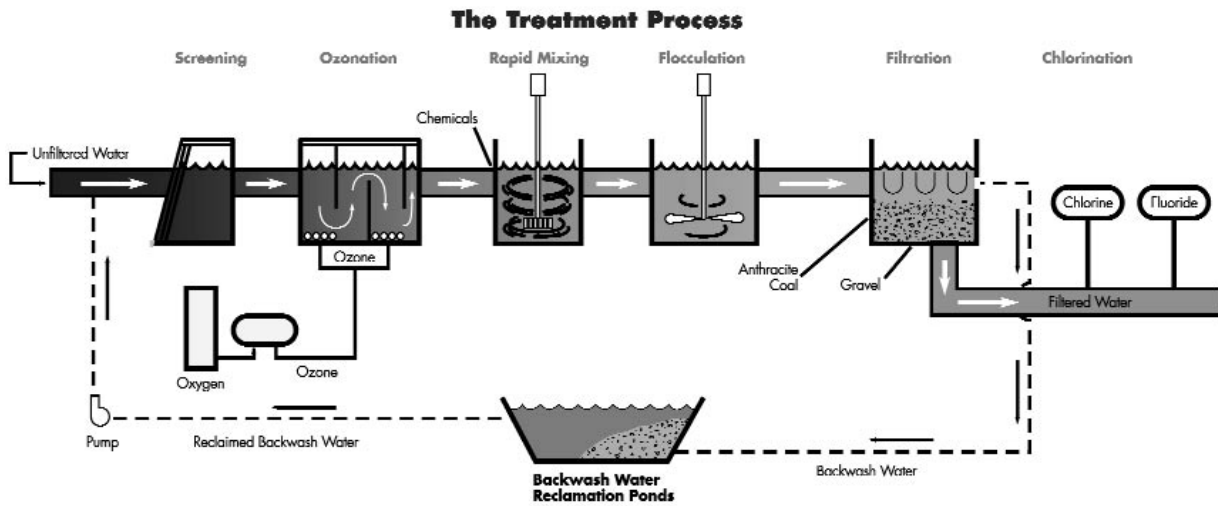
LADWP is gradually switching from chlorine to chloramines as its disinfectant, though customers should expect to receive both types of treatment in their water at any time. Both chlorine and chloramines are effective killers of bacteria and other microorganisms, but chloramines form less disinfection by-products and have no odor when used properly.

People who use kidney dialysis machines may want to take special precautions and consult their physician for the appropriate type of water treatment. Customers who maintain fish ponds, tanks or aquaria should also make necessary adjustments in water quality treatment, as these disinfectants are toxic for fish. For further information, please visit www.ladwp.com/water, click on water quality, then click on "constituents & hot topics."

Making Drinking Water Safe

Surface Water Treatment

All water coming from the Los Angeles Aqueduct, the California Aqueduct, and the Colorado River Aqueduct is filtered and treated to ensure a safe drinking water supply. At the Los Angeles Aqueduct Filtration Plant, raw water is treated as follows:



Water flows into the filtration plant by gravity and travels through a screener to remove environmental debris such as twigs and dead leaves. The process injects ozone, a super-charged oxygen molecule and a powerful disinfecting agent, into the water to destroy bacteria and other impurities that affect taste, odor, and color. Chemicals

are quickly dispersed into the water to make fine particles called floc. A 6-foot-deep filter (crushed coal over gravel) then removes the floc and previously added chemicals. Chlorine added during the final step ensures lasting disinfection and protects the water as it travels through the City’s distribution system.

Groundwater Treatment

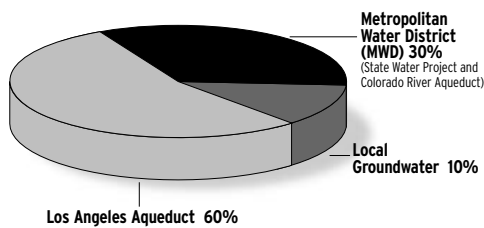
The City’s vast groundwater supply in the San Fernando Valley and Central Basin are generally clean and clear. However, LADWP also disinfects this groundwater with chlorine as a safeguard against microorganisms.

Because of a history of contaminants found in the San Fernando Valley groundwater wells, LADWP adheres to strict operating limits to keep Trichloroethene (TCE), Tetrachloroethylene (PCE), hexavalent chromium, perchlorate and nitrates far below the maximum

contaminant levels (MCLs) permitted by Federal or State regulations. This provides an additional safety margin for City customers. Additionally, blending allows the use of wells that would be otherwise unavailable. In the long term, additional well field treatment will become necessary. LADWP is formulating a comprehensive groundwater treatment plan for the San Fernando Basin that will address current and future contaminants of concern.

Where L.A.’s Water Comes From

WATER SUPPLY SOURCES

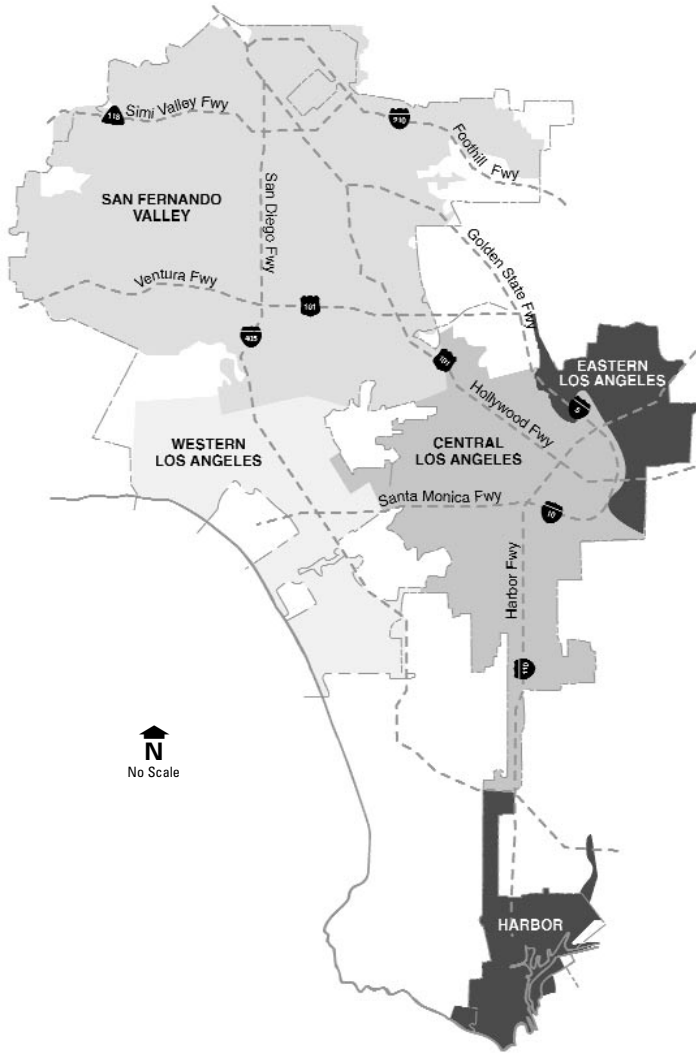


Sources of Water For Your Community

- San Fernando Valley:** Los Angeles Aqueduct, local groundwater, and MWD State Water Project.
- Central Los Angeles:** Los Angeles Aqueduct, MWD State Water Project, and local groundwater.
- Western Los Angeles:** Los Angeles Aqueduct and MWD State Water Project.
- Harbor/Eastern Los Angeles:** MWD State Water Project and Colorado River Aqueduct.



Water Quality Area Map



San Fernando Valley Communities

Arleta	Northridge	Sylmar
Canoga Park	Olive View	Tarzana
Chatsworth	Pacoima	Toluca Lake
Encino	Panorama City	Tujunga
Granada Hills	Porter Ranch	Valley Village
Hollywood Hills	Reseda	Van Nuys
Lake View Terrace	Sherman Oaks	Warner Center
Mission Hills	Studio City	West Hills
North Hills	Sun Valley	Winnetka
North Hollywood	Sunland	Woodland Hills

Central Los Angeles Communities

Baldwin Hills	Hyde Park	Park La Brea
Chinatown	Koreatown	Rancho Park
Country Club Park	LA City Strip (parts of)	Silverlake
Crenshaw	Little Tokyo	Watts
Griffith Park	Los Feliz	West Hollywood (parts of)
Hancock Park	Mid City	Westlake
Hollywood	Mt. Olympus	

Western Los Angeles Communities

Bel Air Estates	Culver City (parts of)	Sawtelle
Beverly Glen	Mar Vista	Venice
Brentwood	Pacific Palisades	West Los Angeles
Castellamare	Palisades Highlands	Westchester
Century City	Palms	Westwood
Cheviot Hills	Playa del Rey	

Eastern Los Angeles Communities

Atwater Village	Glassell Park
Boyle Heights	Highland Park
Cypress Park	Lincoln Heights
Eagle Rock	Montecito Heights
Echo Park	Monterey Hills
El Sereno	Mt. Washington

Harbor Communities

East San Pedro (Terminal Island)
Harbor City
Harbor Gateway (parts of)
LA City Strip (parts of)
San Pedro
Wilmington

How to Read the Tables

The constituents/contaminants found in the water served in your area are listed as follows:

- **For San Fernando Valley Area** – water test results are under the Los Angeles Aqueduct Filtration Plant, the Northern Combined Wells, and MWD Jensen Filtration Plant columns
- **For Western Los Angeles Area** – water test results are under the Los Angeles Aqueduct Filtration Plant column
- **For Central Los Angeles Area** – water test results are under the Los Angeles Aqueduct Filtration Plant and the Southern Combined Wells columns
- **For Harbor/Eastern Los Angeles Area** – water test results are under the MWD Jensen, Weymouth, and Diemer Filtration Plants columns

Some constituents/contaminants detected are reported on a **city-wide basis** as required by the California Department of Health Services. The unregulated contaminants reported on **area-wide basis** are included for additional information on the water served in your area.

Report for All Water Quality Areas

Tables I-III list the results of water tests performed by LADWP and MWD from January to December 2005. These tables include only contaminants with values that are equal to or greater than the limit of detection.

Calendar Year 2005 Water Quality Monitoring Results

**TABLE I - HEALTH-BASED PRIMARY DRINKING WATER STANDARDS
CONTAMINANTS DETECTED IN TREATED WATER**

Contaminants	Units	Los Angeles Filtration Plant		Northern Combined Wells		Southern Combined Wells		MWD Diemer Filtration Plant	
		Range	Average	Range	Average	Range	Average	Range	Average
Alpha Emitters (a)	pCi/L	3.2 - 5.4	4.3	1.4 - 6.5	4.8	1.8 - 7.0	4.8	<3.0 - 3.2	<3.0
Aluminum	µg/L	<50	<50	<50	<50	<50	<50	<50 - 123	<50
Arsenic	µg/L	<2.0 - 6.5	2.4	<2.0 - 4.2	2.1	<2.0 - 3.7	2.1	<2.0	<2.0
Barium	µg/L	<100	<100	<100 - 101	<100	<100 - 108	<100	<100 - 102	<100
Beta Emitters (a)	pCi/L	<4.0	<4.0	<4.0 - 5.6	4.0	<4.0 - 5.6	4.0	<4.0 - 6.4	4.8
Bromate (f)	µg/L	<5.0 - 6.6	<5.0	NA	NA	NA	NA	NA	NA
Nitrate (as N03)	mg/L	<2.0 - 2.9	<2.0	<2.0 - 17	6.1	<2.0 - 13	6.1	<2.0 - 3.6	2.3
Nitrate + Nitrite (as Nitrogen)	mg/L	<0.40 - 0.65	<0.40	<0.4 - 3.8	1.4	<0.40 - 2.8	1.4	<0.40 - 0.81	0.52
Radium (Total 226 and 228) (a)	pCi/L	<0.5	<0.5	<0.5 - 1.0	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene [PCE]	µg/L	<0.5	<0.5	<0.5 - 1.4	<0.5	<0.5 - 1.3	<0.5	<0.5	<0.5
Trichloroethene [TCE]	µg/L	<0.5	<0.5	<0.5 - 2.8	0.62	<0.5 - 2.6	0.62	<0.5	<0.5
Turbidity (b)	NTU	0.58	99.96%	0.10 - 0.45	0.20	0.1 - 0.75	0.20	0.06	100%
Uranium (a)	pCi/L	2.1 - 5.3	3.4	<2.0 - 9.6	5.2	<2.0	<2.0	<2.0	<2.0

**HEALTH-BASED PRIMARY DRINKING WATER STANDARDS
CONTAMINANTS DETECTED IN DISTRIBUTION SYSTEM AND REPORTED ON CITY-WIDE BASIS**

Copper (at-the-tap) (c)	µg/L	number of samples exceeding AL = 1 out of 222						Average
Fluoride	mg/L	Range = 0.13 - 1.3						
Lead (at-the-tap) (c)	µg/L	number of samples exceeding AL = 11 out of 222						Average
Total Chlorine Residual	mg/L	Range = 0.03 - 5.8						
Total Coliform Bacteria	%	Range: 0.0 - 0.9% Coliform positive samples						Average = 0.4 %
Total Haloacetic Acids	µg/L	Range = 6.8 - 111						
Total Trihalomethanes [TTHM]	µg/L	Range = 16 - 90						

**TABLE II - AESTHETIC-BASED SECONDARY DRINKING WATER STANDARDS
CONSTITUENTS/CONTAMINANTS DETECTED IN TREATED WATER**

Constituents/Contaminants	Units	Los Angeles Filtration Plant		Northern Combined Wells		Southern Combined Wells		MWD Diemer Filtration Plant	
		Range	Average	Range	Average	Range	Average	Range	Average
Aluminum	µg/L	<50	<50	<50	<50	<50	<50	<50 - 123	<50
Chloride	mg/L	22 - 62	37	23 - 63	41	24 - 63	41	67 - 85	77
Color	Units	3-8	5	3-8	5	3 - 12	5	1 - 2	2
Corrosivity (e)	LSI	(-0.85) - (-0.34)	-0.59	(-0.64) - 0.39	-0.07	(-0.50) - 0.62	-0.07	0.15 - 0.39	0.27
Manganese NL = 500	µg/L	<20	<20	<20	<20	<20 - 38	<20	<20	<20
Odor	TON	<1	<1	<1-1	<1	<1	<1	2	2
Specific Conductance	µmhos/cm	251 - 496	381	282 - 689	588	397 - 740	588	734 - 871	792
Sulfate	mg/L	16 - 63	41	23 - 145	99	27 - 145	99	151 - 202	171
Total Dissolved Solids [TDS]	mg/L	92 - 269	193	168 - 496	351	204 - 464	351	426 - 528	468
Turbidity	NTU	0.10 - 0.15	0.14	0.10 - 0.45	0.20	0.10 - 0.75	0.20	0.05 - 0.07	0.06
Zinc	µg/L	<50	<50	<50	<50	<50 - 843	<50	<50	<50

MWD Jensen Filtration Plant		MWD Weymouth Filtration Plant		State and Federal Primary Standard (MCL or MRDL)	MEET PRIMARY STANDARD ?	State PHG or (Federal MRDLG or MCLG)	Major Sources of Contaminants In Our Drinking Water
Range	Average	Range	Average				
<3.0	<3.0	<3.0	<3.0	15	YES	(0)	Erosion of natural deposits
<5 - 188	55	<50 - 82	<50	1000	YES	600	Residue from surface water treatment process; erosion of natural deposits
<2.0	<2.0	<2.0	<2.0	50	YES	0.004	Erosion of natural deposits; natural hot springs
<100	<100	<100	<100	1000	YES	2000	Erosion of natural deposits; discharge from oil drilling waste and metal refineries
<4.0	<4.0	<4.0	<4.0	50	YES	(0)	Decay of natural and man-made deposits
4.8 - 8.8	NA (f)	NA	NA	10	YES	(0)	By-product of drinking water disinfection
<2.0 - 2.7	2.4	<2.0 - 4.9	2.4	45	YES	45	Erosion of natural deposits; runoff and leaching from fertilizer use
<0.40 - 0.61	0.54	<0.40 - 1.1	0.54	10	YES	10	Erosion of natural deposits; runoff and leaching from fertilizer use
<0.5	<0.5	<0.5	<0.5	5	YES	(0)	Erosion of natural deposits
<0.5	<0.5	<0.5	<0.5	5	YES	0.06	Discharge from factories, dry cleaners, auto shops (metal degreaser)
<0.5	<0.5	<0.5	<0.5	5	YES	0.8	Discharge from metal degreasing sites and other factories
0.06	100%	0.08	100%	TT	YES	none	Soil runoff
<2.0	<2.0	<2.0	<2.0	20	YES	0.43	Erosion of natural deposits

90th Percentile value = 774	TT, AL=1300 (d)	YES	170	Internal corrosion of household water plumbing systems
Average = 0.64	2	YES	1	Erosion of natural deposits; water additive that promotes strong teeth
90th Percentile value = 10	TT, AL=15 (d)	YES	2	Internal corrosion of household water plumbing systems
Average = 1.7	4.0	YES	4.0	Drinking water disinfectant added for treatment
Coliform positive samples (b)	5% of monthly samples are coliform positive	YES	(0)	Naturally present in the environment
Average = 49	60	YES	none	By-product of drinking water disinfection
Average = 66	80	YES	none	By-product of drinking water chlorination

MWD Jensen Filtration Plant		MWD Weymouth Filtration Plant		State and Federal Standard MCL	MEET SECONDARY STANDARD?	Major Sources of Contaminants In Our Drinking Water
Range	Average	Range	Average			
<50 - 118	55	<50 - 82	<50	200	YES	Residue from some surface water treatment process; erosion of natural deposits
47-65	52	63 - 85	75	500	YES	Runoff/leaching from natural deposits; seawater influence
1 - 4	2	1 - 3	2	15	YES	Naturally-occurring organic matter
0.05 - 0.25	0.14	0.18 - 0.52	0.30	non-corrosive	NO/NO/NO/YES/YES/YES	Natural balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors.
<20	<20	<20	<20	50	YES	Leaching from natural deposits
2	2	3	3	3	YES	Naturally occurring organic materials
477 - 564	525	670 - 876	766	1600	YES	Substances that form ions when in water; seawater influence
55 - 102	82	134 - 206	164	500	YES	Runoff/leaching from natural deposits
270 - 328	302	391 - 532	452	1000	YES	Runoff/leaching from natural deposits
0.04 - 0.06	0.05	0.05 - 0.07	0.06	5	YES	Soil runoff
<50	<50	<50	<50	5000	YES	Corrosion control additive; runoff/leaching from natural deposits

Calendar Year 2005 Water Quality Monitoring Results

TABLE III - UNREGULATED DRINKING WATER CONSTITUENTS/CONTAMINANTS DETECTED IN TREATED WATER

Constituents/Contaminants	Units	Los Angeles Filtration Plant		Northern Combined Wells		Southern Combined Wells		MWD Diemer Filtration Plant		MWD Jensen Filtration Plant		MWD Weymouth Filtration Plant
		Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range
Alkalinity	mg/L	73 - 95	84	73 - 189	128	79 - 208	128	83 - 101	91	79 - 94	89	76 - 100
Boron NL = 1000	µg/L	170 - 400	315	140 - 640	355	130 - 520	355	130 - 200	160	170 - 220	190	130 - 190
Calcium	mg/L	17 - 28	25	25 - 74	52	29 - 81	52	39 - 53	45	24 - 37	32	35 - 52
Chromium 6	µg/L	<1.0	<1.0	<1.0 - 3.8	<1.0	<1.0 - 2.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Magnesium	mg/L	3.3 - 11	7.8	5.9 - 17	13	7.3 - 17	13	19 - 23	20	12 - 16	14	17 - 23
pH	units	7.2 - 7.5	7.4	7.4 - 7.8	7.6	7.5 - 8.6	7.6	8.1 - 8.2	8.2	8.1 - 8.3	8.2	8.1 - 8.4
Phosphate (as Phosphorus)	µg/L	10 - 26	17	11 - 46	36	18 - 314	36	NT	NT	NT	NT	NT
Potassium	mg/L	2.7 - 3.3	3.1	2.5 - 4.8	3.9	2.8 - 4.8	3.9	3.5 - 4.1	3.8	2.7 - 3.0	2.9	3.2 - 4.0
Radon	pCi/L	NA	NA	<100	<100	<100 - 530	<100	<100	<100	<100	<100	<100
Silica	mg/L	14 - 18	16	17 - 26	20	15 - 26	20	NT	NT	NT	NT	NT
Sodium	mg/L	26 - 48	36	20 - 56	48	37 - 56	48	73 - 90	82	42 - 52	48	70 - 93
Total Hardness (as CaCO ₃)	mg/L	57 - 114	96	91 - 244	184	109 - 281	184	176 - 225	197	109 - 156	138	157 - 222
Total Organic Carbon [TOC]	mg/L	1.6 - 2.2	1.9	<0.3 - 1.5	1.0	<0.3 - 1.8	1.0	1.8 - 3.2	2.4	1.9 - 3.0	2.6	1.8 - 3.2
Vanadium NL = 50	µg/L	<3	<3	<3 - 7.8	<3	<3	<3	3.2 - 3.4	3.3	<3	<3	3.0 - 3.6

UNREGULATED CONTAMINANTS REPORTED ON AREA-WIDE BASIS

Contaminants	Units	Central Los Angeles		Harbor/Eastern Los Angeles		San Fernando Valley		Western Los Angeles	
		Range	Average	Range	Average	Range	Average	Range	Average
Bromodichloromethane [BDCM]	µg/L	4.0 - 30	15	8.7 - 28	17	5.7 - 29	14	3.8 - 28	13
Bromoform	µg/L	<0.5 - 14	3.5	0.6 - 8.4	3.1	<0.5 - 7.7	1.6	<0.5 - 7.0	1.2
Chlorate NL = 800	µg/L	103 - 397	210	126 - 546	306	61 - 483	171	454 - 1103	775
Chloroform	µg/L	2.5 - 75	28	7.4 - 43	19	2.1 - 52	25	3.4 - 78	36
Dibromochloromethane [DBCM]	µg/L	4.2 - 26	11	6.4 - 20	13	3.6 - 22	8.4	1.3 - 17	7.0

Terms Used in the Tables

Detection Limit for Reporting Purposes (DLR): The DLR is the lowest level at which all CDHS certified laboratories can accurately and reliably detect a compound. The DLR provides a standardized basis for reporting purposes. For example, if two separate laboratories report that lead is "not detected," it is understood that the amount of lead in both waters was less than the DLR for lead.

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

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the Public Health Goals (PHGs) (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect odor, taste, and appearance of drinking water. For certain contaminants, compliance with the MCL is based on the average of all samples taken throughout the year.

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 EPA. For known or suspected carcinogens, EPA automatically sets the level at zero.

Maximum residual disinfectant level (MRDL): 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): 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 EPA.

Milligram per liter (mg/L), microgram per liter (µg/L), nanogram per liter (ng/L): These are units of measure used to indicate the amount of a contaminant in a certain volume of water. One milligram per liter is equivalent to one part per million (ppm). Likewise, one microgram per liter is equivalent to one part per billion (ppb) and one nanogram per liter is equivalent to one part per trillion (ppt).

MWD Weymouth Filtration Plant	
Average	Major Sources of Contaminants In Our Drinking Water
87	Erosion of natural deposits
150	Erosion of natural deposits; residue from surface water treatment process
42	Erosion of natural deposits; natural hot springs
<1.0	Industrial discharge; erosion of natural deposits
20	Erosion of natural deposits
8.2	Naturally occurring dissolved gases and minerals
NT	Erosion of natural deposits, agricultural run-off
3.7	Erosion of natural deposits
<100	Decay of natural deposits
NT	Erosion of natural deposits
80	Erosion of natural deposits
186	Erosion of natural deposits
2.4	Erosion of natural deposits
3.3	Erosion of natural deposits

Major Sources of Contaminants In Our Drinking Water
Disinfection by-product of chlorination
Disinfection by-product of chlorination
Disinfection by-product of chlorination
Disinfection by-product of chlorination
Disinfection by-product of chlorination

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 Office of Environmental Health Hazard Assessment.

Treatment Technique (TT): A required treatment process intended to reduce the level of a contaminant in drinking water. For example, the filtration process is a treatment technique used to reduce turbidity (the cloudiness in water) and microbial contaminants from surface water. High turbidities may be indicative of poor or inadequate filtration.

Notification Levels (NL) - State: Health-based advisory levels established by CDHS for chemicals in drinking water that lack maximum contaminant levels (MCLs). When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply.

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

Abbreviations and Footnotes

< = less than (example: In Table 1, Aluminum has an average value of <50 for Los Angeles Aqueduct Filtration Plant. This means that the average value is less than 50 micrograms per liter, which is the lowest detection level (DLR) for reporting Aluminum.)

% = Total coliform is reported for compliance as percentage of positive samples, but the unit for analytical reporting of total coliform bacteria is Colony Forming Units per 100 milliliters (CFU/100 ml) of sample.

LSI units = Langelier Saturation Index (an indicator of corrosivity)

mg/L = milligrams per liter (equivalent to ppm)

NA = Not applicable

ng/L = nanograms per liter (equivalent to ppt)

NT = Not tested

NTU = Nephelometric Turbidity Units; Turbidity is a measure of the cloudiness of the water. High turbidity can hinder the effectiveness of disinfectants.

pCi/L = picoCuries per Liter

TON = Threshold Odor Number

µg/L = micrograms per Liter (equivalent to ppb)

µmhos/cm = micromhos per centimeter

(a) Radiological data for LADWP samples are based on 2002 to 2003 monitoring. MWD data are based on 2005 monitoring. Radiological monitoring is now done every three years.

(b) The new reporting requirement for treatment plant turbidity is: report the highest single measurement and the lowest monthly percentage of measurement that is less than or equal to 0.3 NTU. The turbidity level of the water from water filtration treatment plant must be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1.0 NTU at any time.

Turbidity is a measure of the cloudiness of the water and is a good indicator of water quality and filtration performance.

(c) At-the-tap monitoring was conducted in 2003 according to the Federal Lead and Copper Rule guidelines. Although the City's source and treated waters have little if any detectable lead, studies were conducted and corrosion control is scheduled for implementation, as required by the Lead and Copper Rule.

(d) A system is out of compliance if the Action Level is exceeded in the 90th percentile of all samples at the customer's tap.

(e) Corrosivity values were taken from calculated Langelier Index: negative value means that the water may be corrosive, positive value means that the water is non-corrosive.

(f) Bromate is a by-product of ozonation and is tested only in water treated with ozone. For Jensen Filtration Plant, running annual average cannot be calculated until four (4) quarters of monitoring are completed. Jensen plant started using ozone in July 2005. Diemer and Weymouth filtration plants will eventually use ozone to treat the water.

Water Quality News

Research on Disinfection By-Products

One of the most significant distinctions of drinking water in the United States compared to other parts of the world is that we practice continuous disinfection of our treated water supplies. This provides some of the safest water anywhere in the world, and helps prevent many water-related diseases that plague other nations.

However, some studies suggest possible long-term and short-term adverse health effects associated with disinfection by-products (DBPs), especially one group of by-products known as total trihalomethanes (TTHMs).

A few recent studies suggest possible short-term effects, including low birth weight and miscarriages. Yet other studies show no such linkages or the results were inconclusive. Long-term studies also have associated TTHMs to adverse health effects such as cancer. Scientists continue to study TTHMs to

provide a clearer understanding of the risks involved.

LADWP encourages women who are pregnant or think they may become pregnant to consult their physicians. For more information about water quality and your drinking water, contact LADWP or visit us online at www.ladwp.com/water/quality. LADWP will continue to keep customers informed about the results of any future studies. LADWP also will continue to diligently track and implement new regulations as they go into effect.

LADWP currently meets all the disinfection by-product standards (see Tables I and III on pages 6-9). In addition, LADWP is in the process of switching from chlorine to chloramines to maintain water disinfectant residual, which will further reduce levels of TTHMs.

Update on Surface Water Treatment Rule

The Surface Water Treatment Rule (SWTR), administered by the California Department of Health Services (CDHS), is a drinking water regulation designed to help safeguard reservoir supplies from microbiological contamination that may occur when rain runoff from nearby hillsides and slopes enters the water. In Los Angeles, the SWTR applies to four open water reservoirs - Lower Stone Canyon, Encino, and Upper and Lower Hollywood.

LADWP has successfully met the compliance deadlines for all four open reservoirs subject to the requirements of the SWTR. Construction of support facilities will continue but water from these reservoirs will no longer be served unless it is filtered.

LADWP complies with SWTR by removing these reservoirs from regular service. The following is a progress report for each of the reservoirs affected by SWTR.

Upper and Lower Hollywood Reservoirs – were replaced by two 30-million-gallon tanks in July 2001.

Encino Reservoir – was removed from service on December 27, 2002. The permanent air gap was completed in August 2004. Testing of a small scale filtration plant on the reservoir outlet and other water facilities are expected to be completed by June 2006.

Lower Stone Canyon Reservoir – was removed from service on December 28, 2004. The permanent air gap and associated work for the reservoir was completed on September 12, 2005. Testing of a small-scale filtration plant on the reservoir outlet and other water facilities are expected to be completed by September 2007.

Message for *Cryptosporidium*

The Long-Term 2 Enhanced Surface Water Treatment Rule (LT2) is the latest drinking water regulation related to the treatment of surface water. LT2 provides for further protection from microbial pathogens like *Cryptosporidium* and *Giardia*. Required microbial monitoring under LT2 will begin July 2006. In preparation for compliance to this rule, LADWP started monitoring its source and treated waters for *Cryptosporidium* and *Giardia* in 2005. Although both were not detected in the finished treated water, *Cryptosporidium* was detected in some open distribution reservoirs at very low concentrations of 1-2 oocyst per 10-liter sample. Below is California DHS's statement regarding *Cryptosporidium*:

“*Cryptosporidium* is a microbial pathogen found in surface water throughout the U.S. Although filtration removes

Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.”

Message for Radon

In 2005, very low levels of radon were detected in some of our water supplies that serve the Central Los Angeles area (see Table III on pages 8-9). There is no established drinking water standard or monitoring requirement for radon. Radon, entering a home through tap water, is a small source of radon in indoor air. Although the radon levels were well below what EPA is currently considering as a standard, the EPA has asked us to share the following information with you to help you better understand radon.

“Radon is a radioactive gas that you can’t see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of

homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picoCuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren’t too costly. For additional information, call your State radon program or call EPA’s Radon Hotline (800-SOS-RADON).”

Drinking Water Source Assessment and Protection Program (DWSAP)

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 impacts 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 activi-

ties that are associated with contaminants found in the well water; dry cleaning, chemical processing/storage, fertilizer/pesticide storage, metal finishing, and septic systems. 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. For information on how to view the assessment, contact 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.

About This Report

The 2005 Water Quality Report was prepared by the Los Angeles Department of Water and Power. This report is required by the California Department of Health Services (CDHS) and was prepared in accordance with CDHS guidelines. It was produced and mailed to you at a cost of 29 cents. This report is printed on recycled paper.

Messages for Non-English-Speaking Customers

This report contains important information about your drinking water. If you have any questions regarding this report, please contact us at (800) 342-5397.

Este informe contiene información importante sobre su agua potable. Si tiene alguna pregunta sobre este informe, por favor comuníquese con nosotros llamando al (800) 342-5397.

本報告包含有關您的飲用水的重要資訊，您對本報告如有任何疑問，請致電：(800) 342-5397。

Báo cáo này có tin tức quan trọng về nguồn nước uống của quý vị. Nếu quý vị có thắc mắc về báo cáo này, xin liên lạc với chúng tôi tại số (800) 342-5397.

この報告書には皆さんの飲料水に関する重要な情報が含まれています。この報告書に関して何かご質問があれば(800) 342-5397 までお問い合わせください。

이 보고서는 여러분의 수돗물에 관한 중요한 정보를 포함하고 있습니다. 이 보고서에 관해 질문이 있으시면, (800) 342-5397 로 연락 주십시오.

В этом отчете содержится важная информация о вашей питьевой воде. Если у вас есть вопросы по этому отчету, вы можете позвонить по телефону (800) 342-5397.

Այս զեկոյցը պարունակում է կարևոր տեղեկություններ ձեր խմելու ջրերի մասին: Այս խնդրի մասին որևէ հարցում ունենալու պարագային կարող էք հեռաձայնել մեզ՝ (800) 342-5397 հեռախոսահամարով:

รายงานนี้ประกอบด้วยข้อมูลสำคัญเกี่ยวกับน้ำดื่มของท่าน ถ้าหากท่านมีคำถามใดๆเกี่ยวกับรายงานนี้ กรุณาติดต่อเราได้ที่ (800) 342-5397

این گزارش حاوی اطلاعات مهمی در مورد آب آشامیدنی شماست. چنانچه سوالی در مورد این گزارش دارید لطفاً با شماره تلفن (800) 342-5397 با ما تماس بگیرید.

يحتوي هذا التقرير على معلومات هامة عن مياه الشرب في لوس انجلوس. إذا كان لديك أسئلة عن هذا التقرير نرجو الاتصال بنا على الرقم (800) 342-5397.

1-800-342-5397

