The Story Behind Your Drinking Water Quality





Water Quality Report for 2008 Las Virgenes Municipal Water District

Las Virgenes Municipal Water District met all drinking water standards for health and safety again this year. In fact, our water was far better than required for most standards Annual Water Quality Report ~ Published June 2009

这份报告中有些重要的信息, 讲到关于您所在社区的水的品 质。请您找人翻译一下,或者 请能看得懂这份报告的朋友给 您解释一下。	이 보고서에는 귀하가 거주하는 지역의 수질에 관한 중요한 정보 가 들어 있습니다. 이것을 변역 하거나 충분히 이해하시는 친구 와 상의하십시오.	Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.	Der Bericht enthält wichtige Informationen über die Wasserqualität in Ihrer Umgebung. Der Bericht sollte entweder offiziell uebersetzt werden, oder sprechen Sie mit Freunden oder Bekannten, die gute Englischkenntnisse besitzen.	
Chinese	Korean	Spanish	German	

Dear Valued Customer:

As we enter a third year of reduced water supplies across California, hardly a day passes without water being covered as a news topic. While there are no short-term solutions to the challenge of stretching available supplies, as a community we can respond by consciously deciding to be efficient users of water on a daily basis. Your conservation efforts are both important and necessary.

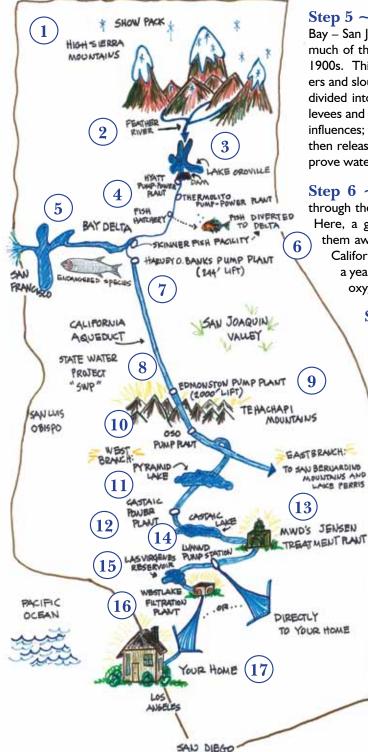
While the supply of available water has diminished, the quality has not. This publication is our annual report to you on the quality of the water we deliver to our customers. We take pride in the attention given to the quality of water that we serve. You may be confident your water is tested and monitored on an ongoing basis. Over the last year, Las Virgenes Municipal Water District (LVMWD) has added to its record of meeting stringent state and federal water quality standards. In many measured categories, your water has performed at a level higher than the specified standards.

In addition to the data tables in this report, I ask that you read the information on your water supply along with helpful explanations on several topics of interest.

The importance of water in our lives is immeasurable. I invite you to stay informed on water issues through our website, www.LVMWD.com, our customer publication The Current Flow, which is included with each billing statement as well as being available online, and through our program of free quarterly facility tours. Our customers are also welcome to attend meetings of the LVMWD Board of Directors, which are scheduled on the second and fourth Tuesday of each month at 5 p.m. at our Headquarters Building, 4232 Las Virgenes Road in Calabasas. Check the website for meeting schedule updates and agenda information.

The journey water makes to our homes, schools and businesses is complex, with many challenges. By reading this report, we hope you feel better informed about the many steps we take to ensure you receive high quality drinking water. If you have questions about any aspect of your water service, please call Customer Service at 818.251.2200.

John: R. Mundy General Manager



Step 5 ~ Next our water flows into the Sacramento Bay – San Joaquin Delta. Originally a native marshland, much of this area was developed into farmland in the 1900s. This complex region contains 700 miles of rivers and sloughs, and almost 550,000 acres of farmland, divided into more than 70 islands with 1,100 miles of levees and roads. Salinity influx is a problem with tidal influences; upstream reservoirs that store water and then release during the summer help stabilize and improve water quality.

Step 6 ~ As the water continues south, it passes through the Skinner Fish Facility, built in 1966 - 1970. Here, a giant screen helps protect fish by keeping them away from the pumps that lift water into the California Aqueduct. An average of 15 million fish a year are diverted and returned to the Delta (via oxygenated tank trucks).

Step 7 ~ Now the water begins to really travel. At the Harvey O. Banks Pumping Plant, built 1963 - 1969, water is lifted 244 feet at the first of 6 pumping lifts. It enters the Bethany Reservoir.

> Step 8 ~ Water flows through the San Joaquin Valley via the California Aqueduct, a major State Water Project (SWP) structure built from 1960 - 1971. From Banks Pumping Plant to Lake Perris, the Aqueduct travels 444 miles, ranging in depth from 7 to 33 feet.

> Step 9 ~ At the Tehachapi Mountains, the water faces a major obstacle. At the A.D. Edmonston Pumping Plant, built 1965-1971, giant pumps lift the water 1,926 feet (the highest single lift pumping plant in the world) to enter 8.5 miles of tunnels and siphons that cross the mountain range. Capable of pumping I acre-foot of water in about 2 minutes, the water flows into the Antelope Valley where the Aqueduct divides.

Your Water, From Snowfall to Your Tap . . .

The water from your tap started as snowmelt in the Sierra Mountains. Water is brought to our area through the California Aqueduct and travels more than 440 miles to reach your tap. It is purchased from Metropolitan Water District of Southern California (MWD or Metropolitan). LVMWD must import 100% of our drinking water because there are no native supplies to draw from within our 122-square mile service area.

Each year, LVMWD sets aside a portion of the water purchased from MWD as a reserve and stores it in our own Las Virgenes Reservoir. Holding enough water to serve all district customers for about six months, the reservoir provides water "insurance" for times of emergency and peak demand. In addition, it provides flexibility to store water in the off-season when demand is lower.

The Journey Begins...

Step 1 ~ Snowmelt in the High Sierra Mountains provides water for Southern California. Rain and snow that falls in the northern half of California equals 2/3 of the state's annual precipitation and is used to supply 2/3 of the state's population that lives in southern half of California.

Step 2 ~ Snowmelt flows into the Upper Feather River Lakes (Antelope Lake, Frenchman Lake, and Lake Davis) created in the 1960s primarily for recreational use. Water released from these lakes enhance fish and wildlife in the area and supplement water supplies.

Step 3 ~ Water next enters the Oroville – Thermalito Complex. Lake Oroville, the State Water Project's principal reservoir, has a capacity of 3.5 million acre-feet, enough to supply about 40% of California's urban water needs for 1 year. Oroville Dam, built in 1968, is the tallest dam in the U.S. at 770 feet. It was built with 72 million cubic yards of tailings left by gold miners and also provides flood control. The Thermalito Facilities and Hyatt Pump Power Plant produce an average of 2.2 billion kilowatt hours of electricity each year.

Step 4 \sim On its way downstream, some water enters the Feather River Fish Hatchery. Built in 1967 to replace spawning areas that were lost when the river was blocked by the construction of Oroville Dam, this is where salmon and steelhead eggs are artificially spawned. After hatching, the young fish are raised in rearing raceways until they are large enough to be released in the Sacramento River or Bay Delta.

Step 10 ~ The East Branch of the Aqueduct carries water to the San Bernardino Mountains and Lake Perris. Water destined for LVMWD travels in the West Branch. After 32 miles, the water reaches Oso Pumping Plant for its final lift of 231 feet (the rest of the journey uses gravity).

Step 11 \sim The water crosses the San Andreas Fault, and flows into Pyramid Lake in Los Angeles County. Under construction from 1969 to 1973, Pyramid Lake has a 172,000 acre-foot capacity.

Step 12 ~ Leaving the lake, water flows through the Angeles Tunnel (7 miles) to Castaic Power Plant, Castaic Lake, and Castaic Dam constructed between 1965 and 1974. This is the terminus of the West Branch of the California Aqueduct. The lake holds 324,000 acre-feet of water and was built to provide emergency storage during a shutdown of the California Aqueduct.

Step 13 ~ Water then flows to MWD's Jensen Water Treatment Plant in Granada Hills. This facility provides safe, highly treated drinking water to portions of Ventura, Los Angeles, and Orange Counties. Normally, Jensen Water Treatment Plant receives 100% SWP water, but it can also receive water from the Los Angeles Aqueduct. During the treatment process water undergoes comprehensive treatments including rapid mix, flocculation, sedimentation, filtration and disinfection (via ozonation).

Step 14 ~ After treatment, water leaves Jensen Water Treatment Plant and enters an enclosed system of connections and pumping stations in the west San Fernando Valley. These pipelines end at LVMWD's Pumping Station in Calabasas where LVMWD Facilities begin. Overall, LVMWD's pipeline system of tanks and pumping stations include 350 miles of 4" and larger pipeline (up to 48") and 25 tanks, ranging from 0.3 to 8 million gallons in capacity.

Step 15 \sim Depending on water demands and the time of year, the water now flows either directly to your home or to LVMWD's Las Virgenes Reservoir in Westlake Village. Built between 1970 and 1972, the reservoir is able to hold 9,800 acre feet (nearly 3 billion gallons) of treated water from MWD's Jensen Plant.

Step 16 ~ Water drawn from Las Virgenes Reservoir is filtered and disinfected again at LVMWD's Westlake Filtration Plant. In operation mainly during the summer, it is capable of processing 15 million gallons per day (MGD). Water is pumped from the base of the dam to a clear well and filtered using diatomaceous earth (DE). Once filtered, the water is disinfected using chloramines (chlorine + ammonia). Disinfection kills bacteria and prevents bacterial growth in the distribution system.

Step $17 \sim$ Finally, your water is pumped into transmission and distribution water mains where it flows through service lines to individual homes and businesses.

How did we do in 2008? Water Quality Report (based on data collected in 2008)

Primary Standards apply to constituents that may be unhealthy at certain levels. They are measured in terms of Maximum Contaminant Levels (MCLs) established by the California Department of Health Services. If water contains a contaminant level above the primary MCL, the safety of the water cannot be assured. None of the tests for water served to LVMWD's customers exceeded the MCLs.

Parameter	Units	State / Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	Jensen Plant	LVMWD	Major Sources in Drinking Water
CLARITY					<u>^</u>	0	Î	
and in a di Eille a Efflix and Trucki dita	NTU	0.3			Highest	0.06	0.11	
Combined Filter Effluent Turbidity	%	95 (a)	NA	NA	% < 0.3	100	100	Soil runoff
MICROBIOLOGICAL	с				·			
Total Caliform Pastaria (h)	%	5.0		NA	Range	0.0 - 0.8	0.0 - 0.0	Not wally present in the environment
Total Coliform Bacteria (b)	%	5.0	0	NA	Average	0.1	0.0	Naturally present in the environment
E. coli	(c)	(c)	0	NA		0	0	Human and animal fecal waste
Lateratrophic Plate Count (LPC) (d.a)	CFU/	TT	NA	NIA	Range	ТТ	ТТ	
Heterotrophic Plate Count (HPC) (d,e)	mL	TT	NA	NA	Average	TT	ТТ	Naturally present in the environment
INORGANIC CHEMICALS								
Aluminum (f)	anh	1000	600	50	Range	56 - 120	ND - 87	Residue from water treatment process;
Aluminum (f)	ppb	1000	600	50	Highest RAA	95	50	natural deposits erosion
		10			Range Highest RAA	2.0 - 2.8	1.9 - 2.3	
America						2.3	2.1	Natural deposits erosion, glass and electron-
Arsenic	ppb		0.004	2	Control Range	0.7 - 1.3		ics production wastes
					Optimal Level	0.8		1
		2.0	1		Range Average	0.6 - 0.9	0.4 - 0.9	Water additive for dental health
Fluoride (g) Treatment-related	ppm			0.1		0.8	0.7	
		10	40	0.4	Range	0.6 - 0.9	0.6 - 0.9	Runoff and leaching from fertilizer use; septic tank and sewage; natural deposits erosion
Nitrate (as N) (h)	ppm	10	10	0.4	Highest RAA	0.7	0.7	
RADIOLOGICALS					^			•
Orean Alaba Dartiala Antivity		45	0	2	Range	ND - 7.3	ND - 8.2	Erosion of natural deposits
Gross Alpha Particle Activity	pCi/L	15	0	3	Average	3.4	ND	
Orean Data Dartista Astista (i)		50			Range	ND - 5.2	ND - 5.6	
Gross Beta Particle Activity (i)	pCi/L	50	0	4	Average	ND	ND	Decay of natural and man-made deposits
Livenium	nCi/l	20	0.42	1	Range	1.6 - 2.0	2.0 - 2.5	Erosion of natural deposits
Uranium	pCi/L	20	0.43	1	Average	1.8	2.2	
DISINFECTION BY-PRODUCTS, DISINFECTA	NT RESIDUA	LS, AND DISINFECTION	ON BY-PRODUC	TS PRECU	RSORS (j)			
Total Tribalamathanaa (TTI IM) (k)	anh	80	NA		Range	5.4 - 51	26 - 58	Dy product of dripling water obleringtion
Total Trinalomethanes (TTHM) (K)	al Trihalomethanes (TTHM) (k) ppb 80 NA	1	Average	20	35	By-product of drinking water chlorination		
	lomethanes (TTHM) (k) ppb 80 NA 1 Range 5 Highest RAA	5.4 - 51	26 - 58	By-product of drinking water chlorination				
iotai irinaiometnanes (IIHM) (K)		20	28					
	n n h	60	NIA		Range	2.6 - 8.6	ND - 9	Du product of dripling water at laring time
Haloacetic Acids (five) (HAA5) (I)	ic Acids (five) (HAA5) (I) ppb 60 NA 1 Average	4.8	4.7	By-product of drinking water chlorination				
		00	N.A.		Range	2.6 - 8.6	ND - 9	
Haloacetic Acids (five) (HAA5) (I)	ppb	60	NA	1	Highest RAA	4.8	5.4	By-product of drinking water chlorination
					Range	1.4 - 3.2	ND - 4	Drinking water disinfectant added for treat-
Total Chlorine Residualppm4.04.0	NA	NA Highest RAA	2.4	2.2	ment			

Bromoto (m)	nnh	10	0	5.0	5.0 Range	4.4 - 10	NA	By product of drinking water acception
Bromate (m)	ррь		Highest RAA	7.8	NA	By-product of drinking water ozonation		
DBP Precursors Control (TOC)	ppm	TT	NA	0.30	Range	TT	TT	Various patural and man made sources
DBP Fleculsols Collicit (TOC)	ppin	11	INA.	0.30	Average	TT	TT	Various natural and man-made sources

How to Read the Tables

The tables of this report may look complicated but don't let Testing that discourage you.

They contain complex measurements and terminology but with a bit of patience and time on your part, you will learn a lot of valuable information about the water delivered to your tap.

While the information in these tables is important, what you don't see is also significant. Water agencies are required to report contaminants that are detected; none were found at levels considered to be unsafe or unhealthy.

Abbreviations and Terms \sim Definitions and explanations to help you understand the charts.

AI	Aggressiveness Index	NTU
AL	Action Level	P or N
CFU	Colony-Forming Units	pCi/L
DBP	Disinfection By-Products	PHG
DLR	Detection Limits for purposes of Reporting	ppb
MBAS	Methylene Blue Active Substances	ppm
MCL	Maximum Contaminant Level	ppq
MCLG	Maximum Contaminant Level Goal	ppt
MFL	Million Fibers per Liter	RAA
MRDL	Maximum Residual Disinfectant Level	SI
MRDLO	G Maximum Residual Disinfectant Level Goal	TOC
Ν	Nitrogen	TON
NA	Not Applicable	TT
ND	Not Detected	μS/cm
NL	Notification Level	

results are presented for the Jensen Wa-Treatment plant operated by MWD and for LVMWD's water

delivery system. If you have any questions or need clarification, please call us at 818-251-2200, or contact any of the agencies listed in this report under "More Information."

Nephelometric Turbidity Units

ter

D Positive or Not Detected picoCuries per Liter Public Health Goal parts per billion or micrograms per liter (µg/L) parts per million or milligrams per liter (mg/L) parts per quadrillion or picograms per liter (pg/L) parts per trillion or nanograms per liter (ng/L) **Running Annual Average** Saturation Index (Langelier) **Total Organic Carbon** Threshold Odor Number **Treatment Technique** microSiemen per centimeter; or micromho per centimeter (µmho/cm)

Footnotes

(a) For the lensen plant, the turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed I NTU at any time. For the Westlake plant, the turbidity level of the filtered water shall be less than or equal to 0.5 NTU in 95% of the measurements taken each month and shall not exceed 5.0 NTU at any time. Turbidity is a measure of the cloudiness of the water and is an indicator of treatment performance. The averages and ranges of turbidity shown in the Secondary standards were based on the treatment plant effluent.

(b) Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform-positive. In 2008, 1018 samples were analyzed. The MCL was not violated.

(c) E. coli MCL: The occurrence of two consecutive total coliform-positive samples, one of which contains E. coli, constitutes an acute MCL violation. The MCL was not violated.

(d) All MWD distribution samples collected had detectable total chlorine residuals and no HPC was required. HPC reporting level is I CFU/mL.

(e) LVMWD distribution system-wide.

(f) Aluminum has both primary and secondary standards.

(g) MWD was in compliance with all provisions of the State's Fluoridation System Requirements.

(h) State MCL is 45 mg/L as nitrate, which is the equivalent of 10 mg/L as N. (i) The gross beta particle activity MCL is 4 millirem/year annual dose equivalent to the total body or any internal organ. The screening level is 50 pCi/L.

(i) MWD was in compliance with all provisions of the Stage I Disinfectants/Disinfection By-Products (D/DBP) Rule. Compliance was based on the RAA. (k) Reporting level is 0.5 ppb for each of the following: bromodichloromethane,

- bromoform, chloroform, and dibromochloromethane. (1) DLR is 1.0 ppb for each of the following: dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid; and 2.0 ppb for monochlo-
- roacetic acid.

Methods 6450B.

(m) Bromate reporting level is 3 ppb.

(n) MWD utilizes a flavor-profile analysis method that can detect odor occurrences more accurately.

(o) Chromium VI reporting level is 0.03 ppb.

(p) Al < 10.0 = Highly aggressive and very corrosive water; Al > 12.0 = Nonaggressive water; AI (10.0 - 11.9) = Moderately aggressive water (q) Positive SI index = non-corrosive; tendency to precipitate and/or deposit scale on pipes; Negative SI index = corrosive; tendency to dissolve calcium carbonate (r) Analysis conducted by MWD's Water Quality Laboratory using Standard

Fluoride (Treatment-related)

MWD started adding fluoride at each of the five water treatment plants in fall 2007, adjusting the natural fluoride level in the water (ranging at 0.1 - 0.4 ppm) to the optimal range of 0.7 - 0.8 ppm, as State regulations require that fluoridating systems comply with temperature-appropriate fluoride levels as indicated in Section §64433.2 of the California Title 22 Code of Regulations.

On June 5, 2008, the Central Pool plants' fluoride systems (at the Diemer, Weymouth, and Jensen water treatment plants) were shut

down to repair, modify, and perform preventive maintenance. Sampling at the Central Pool distribution locations continued until all monitoring sites were at ambient levels. The fluoride systems were returned to service on August 25, 2008. Levels down to 0.2 ppm were detected in the distribution system on June 9 - June 21 when the fluoride systems were out of service; and on August 25, 2008 when fluoridated water may not have reached all sites prior to commencement of distribution system monitoring. MWD was in compliance with the provisions of the State's Fluoridation System requirements.

Initial Distribution System Evaluation (IDSE)

The Stage 2 Disinfectants/Disinfection By-Products (D/DBP) Rule's IDSE was conducted between April 2007 and March 2008 for total trihalomethanes (TTHMs) and haloacetic acids (HAA5) in conjunction with Stage I D/DBP Rule's compliance monitoring. All TTHM and HAA5 values from the 19 IDSE specific samples were within the range of values reported for Metropolitan's distribution system. Information on these samples is available upon request.

Secondary Standards are not health-related. They apply to taste and scent of drinking water. A handful of constituents have both primary and secondary standards.

Parameter	Units	State / Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	Jensen Plant	LVMWD	Major Sources in Drinking Water
Aluminum (f)	ppb	200	600	50	Range Highest RAA	56 - 120 95	ND - 87 50	Residue from water treatment process; natural deposits erosion
Chloride	ppm	500	NA	NA	Range Highest RAA	72 - 80 75	73 - 130 89	Runoff/leaching from natural deposits; seawater influence
Color	Units	15	NA	NA	Range Highest RAA	1 - 2 2	ND ND	Naturally occurring organic materials
Odor Threshold (n)	TON	3	NA	1	Range Average	2 2	ND - 2 ND	Naturally occurring organic materials
Specific Conductance	µS/cm	1600	NA	NA	Range Highest RAA	516 - 591 552	524 - 577 550	Substances that form ions in water; seawater influence
Sulfate	ppm	500	NA	0.5	Range Highest RAA	47 - 71 58	51 - 190 90	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	ppm	1000	NA	NA	Range Highest RAA	283 - 333 307	300 - 358 329	Runoff/leaching from natural deposits; seawater influence
Turbidity (a)	NTU	5	NA	NA	Range Highest RAA	0.04 - 0.05 0.04	0.05 - 0.10 0.09	Soil runoff
Additional Parameters					-	•		
MICROBIOLOGICAL	1		1	1	Range	ND - 3	ND - 930	
HPC (d,e)	CFU/mL	TT	NA	NA	Average	ND - 3 ND	2	Naturally present in the environment
CHEMICAL		r	r	1	1		1	-
Alkalinity	ppm	NA	NA	NA	Range Highest RAA	81 - 92 86	73 - 103 90	
Boron	ppb	NA	NL = 1000	100	Range Highest RAA	150 - 200 180	NA NA	Runoff/leaching from natural deposits; industrial wastes
Calcium	ppm	NA	NA	NA	Range Highest RAA	23 - 32 28	25 - 29 27	
Chlorate	ppb	NA	NL = 800	20	Range Range	16	NA	By-product of drinking water chlorination; industrial pro- cesses
Chromium VI (o)	ppb	NA	NA	1	Range Highest RAA	0.31 - 0.51 0.40	NA NA	Industrial waste discharge; could be naturally present as well
Corrosivity (p) (as Aggressiveness Index)	AI	NA	NA	NA	Range Average	12.0 - 12.1 12.0	NA NA	Elemental balance in water; affected by temperature, other factors
Corrosivity (q) (as Saturation Index)	SI	NA	NA	NA	Range Average	0.12 - 0.26 0.22	-0.1 - 0.3 0.12	Elemental balance in water; affected by temperature, other factors
Hardness	ppm	NA	NA	NA	Range Highest RAA	108 - 130 121	108 - 132 119	Municipal and industrial waste discharges
Magnesium	ppm	NA	NA	NA	Range Highest RAA	11 - 13 12	11 - 15 13	
рН	pH Units	NA	NA	NA	Range Average	8.2 - 8.4 8.3	6.2 - 8.7 7.9	
Potassium	ppm	NA	NA	NA	Range Highest RAA	2.6 - 3.0 2.8	NA NA	
Sodium	ppm	NA	NA	NA	Range Highest RAA	56 - 68 61	54 - 64 59	
тос	ppm	тт	NA	0.30	Range Highest RAA	1.5 - 1.9 2.1	2.0 - 4.0 2.6	Various natural and man-made sources
Vanadium	ppb	NA	NL = 50	3	Range Average	4.6 - 5.1 4.9	NA NA	Naturally-occurring; industrial waste discharge
N-Nitrosodimethylamine (NDMA) (r)	ppt	NA	3	2	Range Range	2.4 - 7.4	NA NA	By-product of drinking water chloramination; industrial processes

Health Advisory for Persons with Weakened Immune Systems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people

with HIV/AIDS or other immune system disorders; some elderly, or infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

Some constituents are known to especially affect people with weakened immune systems. This is the case with a microscopic parasite called, "Cryptosporidium" which can cause a lifethreatening infection. Cryptosporidium is found in surface water (which comes from rivers, snowmelt, and streams as opposed to ground water from wells) and some occasionally pass into the treated water supply. Although Cryptosporidium may be spread via drinking water, it is more commonly spread through poor hygiene or contaminated foods.

In 2008, there was no evidence of Cryptosporidium in water leaving Metropolitan Water District of Southern California's (MWD) Jensen Water Treatment Plant, which disinfects water supplied to LVMWD or at LVMWD's Westlake Filtration Plant.

Guidelines from EPA and the U.S. Centers for Disease Control and Prevention to reduce the risk of infection by Cryptosporidium and other microbial contaminants are available by calling EPA's Safe Drinking Water Hotline at (800) 426-4791 or visiting www.epa.gov/safewater/.

A Message about Drinking Water from the EPA

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 the water poses a health risk. You can learn more about contaminants and potential health effects by calling the U.S. Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791 or www.epa.gov/safewater/.

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.

In order to ensure that tap water is safe to drink, U.S. EPA and the California Department of Public Health (formerly Department of Health Services) prescribe regulations that limit the amounts of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Contaminants that may be present in water before some treatment include:

- Inorganic contaminants, such as salts and metals, that can be naturally occurring or come from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming
- Microbial contaminants, such as viruses, bacteria and protozoa that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife
- Pesticides and herbicides that may come from a variety of sources such as agriculture, urban

stormwater 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 stormwater runoff, agricultural application, and septic systems
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Your Role in Protecting Water Supplies

Over the past two years, news agencies have published stories regarding the detection of trace levels of pharmaceuticals in water supplies across the nation. For nearly three decades, water managers have been researching this issue and urging the federal government to assist with additional study.

Newer technologies make it possible to now detect the presence of water-borne substances in the parts per billion and in some cases, parts per trillion ranges.

A 2006 study of source and treated waters was conducted by the AWWA Research Foundation and California Urban Water Agencies. The survey found trace amounts, in the parts per trillion range, of nine different pharmaceuticals, one human steroid, and two pesticides in the source water entering the Jensen treatment plant. Trace levels, also in the parts per trillion range of two pharmaceutical compounds and one pesticide were also found in the treated water of the Jensen plant. Research has not yet been able to discern what effects, if any, there may be on human health, given the extremely low levels being detected. What is clear is that significantly more research will be required to make any determinations.

The most effective method to reduce the presence of pharmaceutical substances from water is to prevent their entering the nation's water in the first place. Every person should practice the proper disposal of unused or expired pharmaceuticals and personal care products. Specifically, they should never be disposed of in drains or flushed down the toilet. Additional information may be found at www.nodrugsdownthedrain.com.



LVMWD Board of Directors

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Board Meetings are scheduled at 5 p.m. on the second and fourth Tuesday of each month. See web site for meeting and agenda information.

> Las Virgenes Municipal Water District

Potable Water Recycled Water Wastewater Treatment Biosolids Composting

4232 Las Virgenes Road Calabasas, CA 91302 818.251.2200

www.LVMWD.com

For More Information

LVMWD

(EPA)

401 M Street, SW

Washington, DC 20460

www.epa.gov/safewater/

Customer Service

Phone: (818) 251-2200 Fax: (818) 251-2109 E-mail: Customer_Service@LVMWD.com

Additional information about drinking water safety and standards can be found at:

California Department of Public Health

U.S. Environmental Protection Agency

Office of D¹inking Water 601 N. 7th St. Sacramento, CA 94234-7320 www.cdph.ca.gov/certlic/drinkingwater/Pages/ default.aspx

Office of Ground Water and Drinking Water

EPA Safe Drinking Water Hotline

(800) 426-479 I www.epa.gov/safewater/standards.html (Information on how drinking water laws are established)

U.S. Centers for Disease Control

and Prevention

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