

**CALLEGUAS**

**MUNICIPAL WATER  
DISTRICT**



**ANNUAL WATER QUALITY REPORT  
JULY 2012**

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

# Water Quality as Our Priority

**W**ater quality continues to be a priority for Calleguas Municipal Water District. Our mission since the 1950s has been to provide our service area with a reliable supply of high quality, imported drinking water. A team of highly trained professionals works hard to ensure that Calleguas' water supply meets all state and federal water quality standards. This brochure provides information about the sources and quality of the water delivered by Calleguas in 2011. Included are details about where your water comes from, what it contains, and how it compares to State and Federal standards.

During the year, multiple tests for over 150 drinking water contaminants were performed on Calleguas' water supply to determine concentrations of mineral, physical, bacteriological, inorganic, organic, and radioactive constituents. Once again, we are proud to report our system did not violate any water quality standards. For additional information on the quality of water delivered by Calleguas, please contact Amy Maday at (805) 579-7117 or visit our website at [www.calleguas.com](http://www.calleguas.com).

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 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).

## Our Mission

*... is to provide our service area with a reliable and adequate supply of quality supplemental water through the acquisition and distribution of both regional and locally-developed water in an environmentally and economically responsible manner.*

## Our Source Water

**O**riginating in northern California, Calleguas' drinking water supply is conveyed over five hundred miles through the State Water Project's network of reservoirs, aqueducts, and pump stations. Metropolitan Water District of Southern California completed a source water assessment of its State Water Project supply. This source is considered to be most vulnerable to urban and storm water runoff, wildlife, agriculture, recreation, and wastewater. A copy of the assessment can be obtained by contacting Metropolitan by phone at (213) 217-6850. The State Water Project supply is filtered and disinfected at Metropolitan's Joseph Jensen Filtration Plant in Granada Hills. Following treatment, water is conveyed by pipeline through the San Fernando Valley to Calleguas' mile-long tunnel in the Santa Susana Mountains. The water is then distributed by Calleguas and its purveyors to over one-half million Ventura County residents, representing 80% of the County's population. Surplus supplies of imported water are stored in Lake Bard, the District's surface water reservoir near the city of Thousand Oaks, and the Las Posas groundwater basin underlying the city of Moorpark and surrounding area.



Through the Las Posas Aquifer Storage and Recovery (ASR) project, Calleguas stores water for later use during summer peak demand periods, droughts and emergencies. With an estimated storage capacity of 300,000 acre feet, the lower aquifer system of the Las Posas Basin is optimal for groundwater storage as it is largely confined by clay layers which provide protection from potential contamination sources overlying the aquifer. To date, 18 ASR wells are operational. Additional wells are under consideration to further increase the program's injection and extraction capacity. Visit [www.calleguas.com](http://www.calleguas.com) for more information on the Las Posas ASR project and other Calleguas water supply reliability programs.

## General Information About Source Water

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 before we treat it include:

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

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

- *Pesticides* and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential 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 that can be naturally-occurring or be the result of oil and gas production and mining activities.



## Our Treated Water

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 which limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Calleguas achieves these standards through vigilant watershed protection and treatment techniques used at Metropolitan's Jensen Plant as well as Calleguas' Lake Bard Water Filtration Plant. A good indicator of the effectiveness of our filtration system is the measurement of turbidity. Turbidity, or the cloudiness of water, is listed in the tables included in this report.



## Water Quality Data

The tables below list all the drinking water contaminants that we 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. Unless otherwise noted, the data presented in these tables is from testing done January 1 through December 31, 2011. The State requires that we monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of water quality, is more than one year old.



# Summary of Water Quality Results For 2011

Parameter	MCL [MRDL]		PHG (MCLG) [MRDLG]		Imported Surface Water Treated by Metropolitan		Locally Stored Surface Water Treated by Calleguas		Las Posas Aquifer Storage and Recovery Program		Major Sources in Drinking Water
	Percent of Supply		95%		4%		1%				
	Average	Range	Average	Range	Average	Range	Average	Range			

## PRIMARY DRINKING WATER STANDARDS - Mandatory Health-Related Standards

### CLARITY (a)

Parameter	Highest Single Value	0.05	0.08	(a)	Soil runoff
Turbidity (NTU) (TT)	% of samples <0.3	100%	100%	(a)	

### DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS

Bromate (ppb) (b)	10	0.1	5.9	ND - 8.8	ND	ND - 7.1	(b)	(b)	By-product of drinking water disinfection
Haloacetic Acids (ppb) (c)	60	n/a	System Wide Range: 4 - 9, Highest RAA: 6						By-product of drinking water disinfection
Total Chlorine Residual (ppm)	[4]	[4]	System Wide Range: 1.8 - 2.0, Highest RAA: 1.9						Drinking water disinfectant added for treatment
Total Trihalomethanes (ppb) (c)	80	n/a	System Wide Range: 15 - 44, Highest RAA: 24						By-product of drinking water chlorination

### INORGANIC CHEMICALS

Aluminum (ppb)	1,000	600	82	61 - 99	ND	ND	60	60	Erosion of natural deposits, residual from water treatment process
Arsenic (ppb)	10	0.004	2.3	2.3	ND	ND	3.0	3.0	Erosion of natural deposits, runoff from orchards
Fluoride - Distribution System (ppm) (d)	2.0	1	System Wide Range: 0.7 - 0.9, Highest RAA: 0.8						Water additive that promotes strong teeth
Nitrate (as NO <sub>3</sub> ) (ppm)	45	45	1.8	1.8 - 2.2	ND	ND	ND	ND - 2.2	Runoff and leaching from fertilizer use, erosion of natural deposits
Selenium (ppb)	50	30	ND	ND	ND	ND	5	5	Runoff and leaching from fertilizer use, erosion of natural deposits

### RADIOLOGICALS (e)

Gross Alpha Particle Activity (pCi/L)	15	(0)	ND	ND	ND	ND	5	ND - 7	Erosion of natural deposits
Gross Beta Particle Activity (pCi/L)	50	(0)	ND	ND - 4	ND	ND	ND	ND	Decay of natural and manmade deposits
Uranium (pCi/L)	20	0.43	1	ND - 2	2	1 - 2	8	ND - 16	Erosion of natural deposits

## ABBREVIATIONS, DEFINITIONS, and NOTES

n/a = not applicable      NTU = Nephelometric Turbidity Units      ppb = parts per billion, or micrograms per liter (µg/L)  
 ND = None Detected      ppm = parts per million, or milligrams per liter (mg/L)      pCi/L = PicoCuries per Liter

**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.

**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.

**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 pathogens.

**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.

**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 Standard** = MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

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

**Running Annual Average (RAA)** = The average of all the samples taken for the year.

**(a)** The turbidity level of filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1.0 NTU. ASR water is not subject to these requirements.

**(b)** Compliance for treatment plants that use ozone is based on a running annual average of monthly samples. ASR water is not subject to these requirements.

**(c)** Compliance is based on a running annual average of quarterly distribution system samples. Values reported reflect the highest and lowest single value in the distribution system (range) and the highest running annual average.

**(d)** The Metropolitan Water District treats their water by adding fluoride to the naturally occurring level in order to help prevent dental caries in consumers. Fluoride level in the treated water is maintained within a range of 0.7 - 1.3 ppm, as required by CDPH regulations.

**(e)** Metropolitan results were taken from 2011 monitoring. Calleguas Las Posas ASR results were taken from 2009, 2010 and 2011 monitoring.



# Summary of Water Quality Results For 2011

Parameter	Municipal Water District		Imported Surface Water Treated by Metropolitan		Locally Stored Surface Water Treated by Calleguas		Las Posas Aquifer Storage and Recovery Program		Major Sources in Drinking Water
	Secondary MCL	Notification Level	Percent of Supply		4%		1%		
			95%		Average	Range	Average	Range	

## SECONDARY DRINKING WATER STANDARDS – Aesthetic Standards

Aluminum (ppb) (a)	200		82	61 - 99	ND	ND	60	60	Erosion of natural deposits, residual from water treatment process
Chloride (ppm)	500		64	59 - 69	89	87 - 90	68	59 - 75	Runoff and leaching from natural deposits, seawater influence
Color (Units)	15		1	1	6	ND - 15	8	ND - 14	Naturally-occurring organic materials
Manganese (ppb)	50		ND	ND	ND	ND	ND	ND - 70	Leaching from natural deposits
Odor Threshold (Units)	3		2	2	ND	ND	ND	ND	Naturally-occurring organic materials
Specific Conductance (µS/cm)	1,600		500	420 - 530	638	633 - 644	602	515 - 754	Substances that form ions when in water, seawater influence
Sulfate (ppm)	500		56	54 - 58	70	70	90	56 - 147	Runoff and leaching from natural deposits
Total Dissolved Solids (ppm)	1,000		280	280 - 290	360	350 - 380	352	280 - 460	Runoff and leaching from natural deposits
Turbidity (NTU) (b)	5		0.03	0.03 - 0.09	0.04	0.04	0.3	ND - 0.6	Soil runoff

## ADDITIONAL PARAMETERS (Unregulated)

Alkalinity (ppm)	NS	NS	85	76 - 93	93	90 - 100	92	80 - 110	
Boron (ppb)	NS	1,000	190	190	200	200	200	200	
Calcium (ppm)	NS	NS	27	26 - 28	29	29	40	27 - 62	
Chlorate (ppb)	NS	800	26	26	ND	ND	ND	ND	
Corrosivity (Al) (c)	NS	NS	12.0	12.0	12.1	12.1	11.9	11.5 - 12.1	
Hardness (Total Hardness) (ppm)	NS	NS	110	110 - 120	130	130	159	117 - 229	
Magnesium (ppm)	NS	NS	12	12	14	14	14	12 - 18	
N-Nitrosodimethylamine (ppt)	NS	10	System-Wide Average = 5, Range = ND - 9						
pH (pH Units)	NS	NS	8.2	8.1 - 8.4	8.1	7.9 - 8.3	8.0	7.4 - 8.4	
Potassium (ppm)	NS	NS	3	3	3	3	3	3 - 4	
Radon (pCi/L) (d)	NS	NS	ND	ND	ND	ND	761	244 - 1087	
Sodium (ppm)	NS	NS	54	52 - 57	71	71	57	53 - 64	
Total Organic Carbon (ppm)	NS	NS	1.9	1.6 - 2.1	2.4	1.9 - 2.6	0.6	0.6	
Vanadium (ppb)	NS	50	3	3	ND	ND	3	3	

## ABBREVIATIONS, DEFINITIONS, and NOTES

ND = None Detected    NS = No Standard

NTU = Nephelometric Turbidity Units

ppm = parts per million, or milligrams per liter (mg/L)

ppb = parts per billion, or micrograms per liter (µg/L)

ppt = parts per trillion, or nanograms per liter (ng/L)

pCi/L = PicoCuries per Liter

µS/cm = microSiemen per Centimeter

**Maximum Contaminant Level (MCL)** = Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**Notification Level** = The level at which notification of the public water system's governing body is required.

(a) Aluminum has both primary and secondary standards.

(b) The monthly averages and ranges of turbidity shown in the Secondary Standards section are based on source effluents.

(c) Al measures the aggressiveness of water transported through pipes. Water with Al <10.0 is highly aggressive and would be very corrosive to almost all materials found in a typical water system. Al ≥12.0 indicates non-aggressive water. Al between 10.0 and 11.9 indicates moderately aggressive water.

(d) Radon results were taken from 2009, 2010 and 2011 monitoring.

## Information for Customers with Special Water Needs

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 guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).



## Constituents Tested For and Not Detected

In addition to the information provided in the Summary of Water Quality Results, Calleguas also monitored for, but did not detect, the following contaminants during 2011:

Antimony	Cyanide	Perchlorate	Total Chromium
Asbestos	Foaming Agents	Pesticides	Tritium
Barium	Herbicides	Radium 226	Volatile Organic Chemicals (VOCs)
Beryllium	Lead	Radium 228	Zinc
Cadmium	Mercury	Silver	
Chromium 6	MTBE	Strontium-90	
Copper	Nitrite	Thallium	



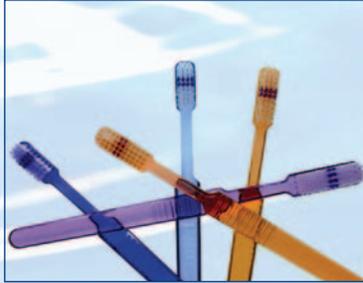
## Information on Lead in Household Plumbing

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. Your local utility 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>.

# Drinking Water Fluoridation

In 2007, Calleguas' wholesale water provider, the Metropolitan Water District of Southern California, joined a majority of the nation's public water suppliers in systematically adding fluoride to drinking water at each of five water treatment plants in order to help prevent tooth decay.

In line with recommendations from the California Department of Public Health, as well as the U.S. Centers for Disease Control and Prevention, Metropolitan adjusted the natural fluoride level in the water, which ranges from 0.1 to 0.4 parts per million, to the optimal range for dental health of 0.7 to 0.8 parts per million.



Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million.

Fluoride has been added to U.S. drinking water supplies since 1945. Of the 50 largest cities in the U.S., 43 fluoridate their drinking water.

For more information about the benefits of drinking water fluoridation, please visit the following web sites:

**The American Dental Association**

<http://www.ada.org/fluoride.aspx>

**U.S. Centers for Disease Control and Prevention**

[http://www.cdc.gov/fluoridation/fact\\_sheets/cwf\\_qa.htm](http://www.cdc.gov/fluoridation/fact_sheets/cwf_qa.htm)

# Information on Radon

Water suppliers are required to provide information on the presence of radon in water sources. A known human carcinogen, radon is a radioactive gas that one cannot see, taste, or smell. Commonly found in soils throughout the United States, breathing air containing radon may lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. Radon can seep up through the ground and into homes and other structures through cracks and holes in foundations. Over time, concentrations of the gas can increase to high levels potentially exposing

inhabitants to greater health risks. It is possible that radon can also be released from tap water when used for showering, washing dishes, and other household activities. However, the concentration of radon released through tap water is in most cases assumed to be considerably lower than concentrations entering a home from underlying ground. If you are concerned about radon, you are advised to test the air in your home. Testing is inexpensive and easy. The EPA recommends taking measures to reduce radon levels in your home if concentrations are 4 PicoCuries per liter of air (pCi/L) or higher. For additional information, call your State radon program (1-800-745-7236), the EPA Safe Drinking Water Act Hotline at (1-800-426-4791), or call the National Safe Council Radon Hotline (1-800-SOS-RADON).

## More Information on Water Quality

**Calleguas Municipal Water District**

2100 Olsen Road • Thousand Oaks, CA 91360-6800

(805) 526-9323

<http://www.calleguas.com>

**Metropolitan Water District of Southern California**

Public Affairs • P.O. Box 54153 • Los Angeles, CA 90054-0153

(800) CALL MWD

[www.mwdh2o.com/](http://www.mwdh2o.com/)

**State of California Department of Public Health**

Office of Drinking Water • 601 North 7th Street • Sacramento, CA 94234-7320

<http://www.cdph.ca.gov/programs/Pages/DDWEM.aspx>

**U.S. Environmental Protection Agency (WH-550)**

**Office of Ground Water & Drinking Water**

401 M. Street, S.W. • Washington, D.C. 20460

Safe Drinking Water Hotline (800) 426-4791

<http://water.epa.gov/drink/index.cfm>

The Calleguas Municipal Water District Board of Directors meets on the first and third Wednesday of each month at 5:00 pm at the District's administration building, 2100 Olsen Road in Thousand Oaks. The public is welcome to attend these meetings.



Ted Grandsen - President  
William R. Seaver - Vice President  
Donald G. Hauser - Secretary  
Gail L. Pringle - Treasurer  
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Susan B. Mulligan - General Manager

