

## General Information About Water Sources

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 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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California 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.

## About Our Manganese Exceedance

Manganese was found in the District's groundwater sources and treated water at levels that exceeded the secondary MCL (SMCL) of 50 ppb. The SMCL was set to protect you against unpleasant effects, such as color, taste, and odor. The level found was due to the leaching of natural deposits into water sources. Exceeding the SMCL does not pose a health risk. The District conducted a customer survey to determine whether or not to provide treatment for manganese removal. The findings of the survey indicated that the customers chose not to pay for manganese removal treatment. Based on the findings contained in the customer survey, the District has received a waiver from the California Department of Public Health for manganese SMCL violations.

Ventura County Waterworks District No. 19  
6767 Spring Road  
P.O. Box 250  
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Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.



Presented by:  
Ventura County Waterworks District No. 19

## Maintaining High Standards

Once again we are proud to present our annual water quality report. This report covers the testing performed between January 1 and December 31, 2012. The events of the past few years have presented many of us with challenges we could not have imagined. Yet in spite of this, we have maintained high standards in an effort to continue delivering the best-quality drinking water possible. There may be other hurdles in the future, yet please know that we will always work diligently to provide you with quality water at a reasonable cost. We will also remain vigilant in meeting the challenges of new regulations, new local source water production, water conservation, community outreach and education while continuing to serve all your water needs.

Thank you for allowing us to continue providing you and your family with quality drinking water. We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions or concerns, we are always available to assist you.

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).

## Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The Citizens' Advisory Committee meets bi-monthly at the District office located at 6767 Spring Road in Moorpark. If you wish to participate, please call (805) 378-3000 for the specific date and time.

For more information about this report, or for any other questions relating to the quality of your drinking water, please contact Al Sexton, Manager of Laboratory Services, at (805) 378-3022.

## 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 (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 (1-800-426-4791).

## Where Does the District Water Come From?

The District's water supply comes from both imported and local sources. Imported water, which accounted for approximately 4% of our total supply in 2012, comes from the State Water Project. This water originates in northern California, where it is captured in reservoirs north of Sacramento and released into the delta of the Sacramento and San Joaquin rivers. It is transported via the 444-mile California Aqueduct to State Water Project contractors such as the Metropolitan Water District of Southern California (MWD). The District water is filtered and disinfected by MWD at its Jensen Filtration Facility in Granada Hills. MWD then delivers the water to its 26-member public agencies, including Calleguas Municipal Water District (CMWD), Ventura County's regional wholesale purveyor and the District's direct supplier.

Local water is pumped from the Las Posas Basin by three groundwater wells owned and operated by the District. The wells produced approximately 96% of our total supply in 2012. The District treats the water that is pumped from the wells, and then delivers it to our customers.

Local and imported water is delivered to our customers through the District's distribution system, which consists of eight reservoirs, seven booster pump stations, and approximately 46 miles of water lines. Water service is provided through about 1,061 service connections.

In the year 2012, the District supplied approximately 2,808 acre-feet of water to about 3,275 people in the community of Somis and surrounding areas for agricultural, residential, industrial, commercial, and fire protection purposes.

## 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. Ventura County Waterworks 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>.

## Well Water Quality

Due to close proximity of concentrated animal operations near a District production well, special samples were collected to determine the bacteriological quality of the well. Monthly sampling was performed during the winter months of 2009 and 2010 and quarterly for the rest of the year. None of the samples were found to be present for bacteria. The District continues to test the raw water bacteriological quality of the wells quarterly.

## What Are PPCPs?

When cleaning out your medicine cabinet, what do you do with your expired pills? Many people flush them down the toilet or toss them into the trash. Although this seems convenient, these actions could threaten our water supply.

Recent studies are generating a growing concern over pharmaceuticals and personal care products (PPCPs) entering water supplies. PPCPs include human and veterinary drugs (prescription or over-the-counter) and consumer products, such as cosmetics, fragrances, lotions, sunscreens, and house cleaning products. Over the past five years, the number of U.S. prescriptions increased 12 percent to a record 3.7 billion, while nonprescription drug purchases held steady around 3.3 billion. Many of these drugs and personal care products do not biodegrade and may persist in the environment for years.

The best and most cost-effective way to ensure safe water at the tap is to keep our source waters clean. Never flush unused medications down the toilet or sink. Instead, check to see if the pharmacy where you made your purchase accepts medications for disposal, or contact your local health department for information on proper disposal methods and drop-off locations. You can also go on the Web at [www.Earth911.com](http://www.Earth911.com) to find more information about disposal locations in your area.

## Information on Radon

Radon is a radioactive gas that you cannot 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. You should pursue radon removal for 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 are not too costly. For additional information, call your State radon program (1-800-745-7236), the EPA Safe Drinking Water Act Hotline (1-800-426-4791), or the National Safety Council Radon Hotline (1-800-SOS-RADON).

## Summary of Water Quality Results For 2012

During the past year, we have taken hundreds of drinking water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below list all the drinking water contaminants that were detected in calendar year 2012. The State requires that we monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year. Some of this data, though representative of water quality, are more than one year old.

Parameter (Unit of Measure)	Local Water Supplied by: Waterworks District No. 19		Imported Water Supplied by: Calleguas Municipal Water District		Violation	Major Sources in Drinking Water
	Percent of Supply	96%	4%			
	MCL [MRDL]	PHG (MCLG) [MRDLG]	Average	Range	Average	Range

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

CLARITY (a)								
		Highest Single Value	n/a		0.07		No	Soil runoff
Turbidity (NTU) (TT)		% of samples <0.3	n/a		100%		No	

### DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS

Bromate (ppb) (b)	10	0.1	n/a	n/a	5.1	ND - 6.9	No	By-product of drinking water disinfection
Haloacetic Acids (ppb) (c)	60	n/a	ND	n/a	6.3	ND - 11	No	By-product of drinking water disinfection
Total Chlorine Residual (ppm)	[4]	[4]	1.50	0.23 - 3.4	2.0	0.4 - 2.7	No	Drinking water disinfectant added for treatment
Total Trihalomethanes (ppb) (c)	80	n/a	4.2	2.8 - 5.7	24.9	9.6 - 47.7	No	By-product of drinking water chlorination

### INORGANIC CHEMICALS

Aluminum (ppb)	1,000	600	ND	n/a	80	ND - 110	No	Erosion of natural deposits, residual from water treatment process
Arsenic (ppb)	10	0.004	ND	n/a	0.2	ND - 4	No	Erosion of natural deposits, runoff from orchards
Fluoride - Distribution System (ppm) (d)	2.0	1	0.2	0.1 - 0.3	0.8	0.6 - 1.0	No	Water additive that promotes strong teeth
Selenium (ppb)	50	30	1	ND - 2	0.3	ND - 8	No	Runoff and leaching from fertilizer use, erosion of natural deposits

### RADIOLOGICALS (e)

Gross Beta Particle Activity (pCi/L)	50	(0)	n/a	n/a	ND	ND - 4	No	Decay of natural and manmade deposits
Uranium (pCi/L)	20	0.43	n/a	n/a	1	ND - 2	No	Erosion of natural deposits

### Home Tap Water Samples Collected for Lead and Copper Analyses

Parameter (Unit of Measure)	Year Sampled	AL	PHG (MCLG)	Amount Detected (90th %)	# Sites Above AL / Total Sites	Violation	Major Sources in Drinking Water
Lead (ppb)	2012	15	0.2	6.9	0 / 10	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	2012	1.3	0.3	0.22	0 / 10	No	Corrosion of household plumbing systems; erosion of natural deposits

Parameter	Local Water Supplied by: Waterworks District No. 19		Imported Water Supplied by: Calleguas Municipal Water District		Violation	Major Sources in Drinking Water
	Percent of Supply	96%	4%			
	Secondary MCL	Notification Level	Average	Range	Average	Range

### SECONDARY DRINKING WATER STANDARDS--Aesthetic Standards

Aluminum (ppb) (a)	200		ND	n/a	80	ND - 110	No	Erosion of natural deposits, residual from water treatment process
Chloride (ppm)	500		59	13 - 148	57	50 - 90	No	Runoff and leaching from natural deposits, seawater influence
Color (Units)	15		10	n/a	2	ND - 2	No	Naturally-occurring organic materials
Iron (ppb)	300		173	28 - 300	ND	n/a	No	Leaching from natural deposits
Manganese (ppb)	50		111	83 - 140	ND	n/a	Yes	Leaching from natural deposits
Specific Conductance (µS/cm)	1,600		1,011	530 - 1,700	448	400 - 630	No	Substances that form ions when in water, seawater influence
Sulfate (ppm)	500		272	91 - 540	49	46 - 70	No	Runoff and leaching from natural deposits
Total Dissolved Solids (ppm)	1,000		710	330 - 1,280	263	240 - 340	No	Runoff and leaching from natural deposits
Turbidity (NTU) (b)	5		2.5	0.7 - 6.0	ND	ND - 0.1	No	Soil runoff

### ADDITIONAL PARAMETERS (Unregulated)

Alkalinity (ppm)	NS	NS	190	160 - 210	80	72 - 100	
Boron (ppb)	NS	1,000	167	ND - 400	171	170 - 200	
Calcium (ppm)	NS	NS	125	61 - 235	24	23 - 29	
Hardness (Total Hardness) (gpg)	NS	NS	25	12 - 44	5.9	5.7 - 7.6	
Magnesium (ppm)	NS	NS	27	14 - 41	11	11 - 14	
N-Nitrosodimethylamine (ppt)	NS	10	n/a	n/a	ND	ND - 9	
pH (pH Units)	NS	NS	7.4	7.1 - 7.6	8.3	7.9 - 8.4	
Potassium (ppm)	NS	NS	4	2 - 6	2	2 - 3	
Sodium (ppm)	NS	NS	66	31 - 104	49	43 - 71	
Total Organic Carbon (ppm)	NS	NS	n/a	n/a	1.9	0.6 - 2.6	

## Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of

the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen, disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at that time. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

## What Makes Water Hard?

If substantial amounts of either calcium or magnesium, both nontoxic minerals, are present in drinking water, the water is said to be hard. Hard water does not dissolve soap readily, so making lather for washing and cleaning is difficult. Conversely, water containing little calcium or magnesium is called soft water.

### 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
AL = Federal Regulatory Action Level	gpg = Grains per Gallon	

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.

(b) Compliance for treatment plants that use ozone is based on a running annual average of monthly samples.

(c) Compliance is based on a running annual average of annual reduced monitoring 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 results were taken from 2010 monitoring.