

Presented By



ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2016

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

PWS ID#: CA5610019

We've Come a Long Way

Once again we are proud to present the City's annual water quality report covering the period between January 1 and December 31, 2016. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at any hour—to deliver the highest quality drinking water without interruption. Although the challenges ahead are many, we feel that by investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to all our customers.

Community Participation

The Camarillo City Council convenes regularly at 5 p.m. on the second and fourth Wednesdays of each month at City Hall, 601 Carmen Drive. We welcome public interest and participation in decisions affecting drinking water, and encourage attendance at these meetings. Visit our website at www.cityofcamarillo.org for City Council agenda information.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or at <http://water.epa.gov/drink/hotline>.



Substances That Could Be in 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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

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 can result from urban storm-water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, that may come from a variety of sources such as agriculture, urban storm-water runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which can also come from gas stations, urban storm-water runoff, agricultural applications, and septic systems;

Radioactive Contaminants, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Where Does My Water Come From?

In 2016, City of Camarillo Water customers received approximately 42% local ground water pumped from the Fox Canyon Aquifer via four city wells, blended with approximately 58% imported water from Calleguas Municipal Water District (Calleguas). The Camarillo wells have the ability to pump up to 8.6 million gallons per day. Calleguas provides imported water from the northern California State Water Project and from the Colorado River. Just over half of the water we receive originates in northern California and is conveyed over 500 miles through the State Water Project's network of reservoirs, aqueducts, and pump stations. After treatment at the Metropolitan Water District Jensen Filtration Plant in the northern San Fernando Valley, the water is carried by pipeline to Ventura County where it is distributed by Calleguas to its Ventura County water purveyors. Additional supplies of the imported water are stored in Lake Bard, Calleguas's reservoir in Thousand Oaks. More information about our imported water can be found here: <http://www.calleguas.com/water-resources-and-quality/water-quality.asp>.

Lead in Home 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. We are 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) 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 www.epa.gov/lead.



What's Your Water Footprint?

You may have some understanding about your carbon footprint, but how much do you know about your water footprint? The water footprint of an individual, community, or business is defined as the total volume of freshwater that is used to produce the goods and services that are consumed by the individual or community or produced by the business. For example, 11 gallons of water are needed to irrigate and wash the fruit in one half-gallon container of orange juice. Thirty-seven gallons of water are used to grow, produce, package, and ship the beans in that morning cup of coffee. Two hundred sixty-four gallons of water are required to produce one quart of milk, and 4,200 gallons of water are required to produce two pounds of beef.

According to the U.S. EPA, the average American uses over 180 gallons of water daily. In fact, in the developed world, one flush of a toilet uses as much water as the average person in the developing world uses for an entire day's cooking, washing, cleaning, and drinking. The annual water footprint in America is about 8,000 cubic feet per person; twice the global per capita average. With water use increasing six-fold in the past century, our demands for freshwater are rapidly outpacing what the planet can replenish.



To check out your own water footprint, go to <http://go.gl/QMoIXT>.

Source Water Assessment

In May 2001, a Source Water Vulnerability Assessment of the City of Camarillo's three ground water wells was conducted. A fourth well located at the Camarillo Airport was added to our water system after this assessment was conducted. The sources have been determined to be vulnerable to contaminants associated with agricultural drainage and irrigation wells, with discharges permitted by the National Pollutant Discharge Elimination System, with storm drains and sewer collection systems, and with gas stations and dry cleaners. Although no contaminants from these activities were detected in the water produced by these wells, they are still considered vulnerable to these nearby activities. A copy of the complete assessment is available by contacting the City of Camarillo Water Division at 805-388-5373.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Debbie Schultz, Administrative Specialist, at 805-388-5373.

Test Results

Our water is monitored for many different kinds of contaminants on a very strict sampling schedule. The information below represents only those substances that were detected; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

REGULATED SUBSTANCES													
				City of Camarillo Well Water 42%	Purchased Water from Calleguas MWD Jensen Plant 55%	Purchased Water From Calleguas MWD Weymouth Plant 2%	Purchased Water from Calleguas Lake Bard 1%						
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2016	1000	600	ND	ND	100	ND-130	159	77-220	ND	ND	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2015, 2016	10	0.004	ND	ND-2	3	3	ND	ND	4	3-4	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2016	1	2	ND	ND	ND	ND	0.1	0.1	ND	ND	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Bromate (ppb)	2016	10	0.1	NA	NA	7.4 ¹	4.4-13.0 ¹	NA	NA	ND	ND	No	By-product of drinking water disinfection
Combined Filter Effluent Turbidity (NTU)	2016	Highest Single Value		NA	NA	0.05		0.03		0.14			Soil runoff
		TT = % of samples ≤0.3 NTU		NA	NA	100%		100%		100%			
Combined Radium (pCi/L)	2011, 2016	5	(0)	ND	ND-1	ND	ND	ND	ND	ND	ND	No	Erosion of natural deposits
Fluoride ² (ppm)	2015, 2016	2.0	1	0.2	ND-0.4	System-wide: Highest RAA = 0.8; Range = 0.6-1.0						No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2014, 2016	15	(0)	4	ND-11	3	ND-5	ND	ND-4	ND	ND	No	Erosion of natural deposits
Gross Beta Particle Activity ³ (pCi/L)	2016	50	(0)	NA	NA	ND	ND-5	5	4-6	ND	ND	No	Decay of natural and man-made deposits
Haloacetic Acids (ppb)	2016	60	NA	System-wide: Highest LRAA = 6.6; Range = 2.9-8.4								No	By-product of drinking water disinfection
Nitrate [as nitrogen] (ppm)	2016	10	10	ND	ND-0.5	0.8	0.6-0.9	ND	ND	ND	ND	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	2016	50	30	ND	ND	ND	ND	ND	ND	11	8-14	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Total Chlorine Residual (ppm)	2016	[4.0]	[4.0]	System-wide: Highest RAA = 1.4; Range = 0.3-2.2									Drinking water disinfectant added for treatment

REGULATED SUBSTANCES													
				City of Camarillo Well Water 42%		Purchased Water from Calleguas MWD Jensen Plant 55%		Purchased Water From Calleguas MWD Weymouth Plant 2%		Purchased Water from Calleguas Lake Bard 1%			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
TTHMs [Total Trihalomethanes] (ppb)	2016	80	NA	System-wide: Highest LRAA = 30.5; Range = 12–45								No	By-product of drinking water disinfection
Uranium (pCi/L)	2014, 2016	20	0.43	3	1–5	2	2–3	3	2–3	ND	ND	No	Erosion of natural deposits
Tap Water Samples Collected for Lead and Copper Analyses from Sample Sites throughout the Community													
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE						
Copper (ppm)	2016	1.3	0.3	0.34	0/33	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives						
Lead (ppb)	2016	15	0.2	2.3	0/33	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits						

SECONDARY SUBSTANCES													
				City of Camarillo Well Water 42%		Purchased Water from Calleguas MWD Jensen Plant 55%		Purchased Water From Calleguas MWD Weymouth Plant 2%		Purchased Water from Calleguas Lake Bard 1%			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2016	200	NS	ND	ND	100	ND–130	159	77–220	ND	ND	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2015, 2016	500	NS	123	70–170	93	89–97	103	103	108	107–108	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2015, 2016	15	NS	6	ND–15	2	1–2	1	1	ND	ND	No	Naturally occurring organic materials
Corrosivity^d (Units)	2015, 2016	Non-corrosive	NS	12.5	12.2–12.6	12.2	12.2	12.5	12.4–12.5	12.3	12.2–12.3	No	Natural or industrially influenced balance of hydrogen, carbon, and oxygen in the water; affected by temperature and other factors
Foaming Agents [MBAS] (ppb)	2015, 2016	500	NS	17	ND–67	ND	ND	ND	ND	ND	ND	No	Municipal and industrial waste discharges
Iron (ppb)	2016	300	NS	205 ^e	ND–460 ^e	ND	ND	ND	ND	ND	ND	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2016	50	NS	48 ^e	19–92 ^e	ND	ND	ND	ND	ND	ND	No	Leaching from natural deposits
Odor–Threshold (Units)	2015, 2016	3	NS	1	1	3	3	2	2	ND	ND	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2015, 2016	1,600	NS	1,714 ^e	1,100–2,500 ^e	687	652–721	1,035	1,020–1,050	806	778–835	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2016	500	NS	295 ^e	210–680 ^e	95	86–104	258	256–259	108	102–110	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2016	1,000	NS	815	710–1,100 ^e	400	377–423	655	650–659	447	430–460	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2015, 2016	5	NS	1.7	0.6–3	ND	ND	ND	ND	ND	ND	No	Soil runoff

UNREGULATED AND OTHER SUBSTANCES ⁷

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	City of Camarillo Well Water 42%		Purchased Water from Calleguas MWD Jensen Plant 55%		Purchased Water From Calleguas MWD Weymouth Plant 2%		Purchased Water from Calleguas Lake Bard 1%	
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH
Alkalinity (ppm)	2015, 2016	233	220–250	94	92–95	118	113–124	107	100–110
Bicarbonate (ppm)	2015, 2016	278	230–300	NA	NA	NA	NA	NA	NA
Boron (ppm)	2012, 2016	0.5	0.3–0.7	0.3	0.3–0.3	0.2	0.2–0.2	0.3	0.3–0.3
Calcium (ppm)	2015, 2016	156	85–245	33	30–36	77	75–79	35	32–37
Chlorate (ppb)	2013, 2014, 2016	58	ND–120 ⁷	39	39	60	60	ND	ND
Hardness [Total Hardness] (ppm)	2015, 2016	567	313–910	129	126–132	300	293–306	148	142–154
Magnesium (ppm)	2015, 2016	44	24–73	12	12	26	25–27	15	15
Molybdenum (ppb)	2013, 2014	10	2.6–16 ⁷	NA	NA	NA	NA	NA	NA
pH (Units)	2015, 2016	7.4	7–7.8	8.3	8.3	8.1	8.1	8.3	8.3
Potassium (ppm)	2015, 2016	5	4–6	3	3	5	5	4	4
Sodium (ppm)	2015, 2016	154	100–220	89	84–94	105	104–106	95	94–96
Strontium (ppb)	2013, 2014	792	260–1,200 ⁷	NA	NA	NA	NA	NA	NA
Total Organic Carbon (ppm)	2016	NA	NA	2.2	1.8–2.8	2.5	1.7–2.8	1.8	1.7–1.8
Vanadium (ppb)	2013, 2014, 2016	ND	ND–4 ⁷	7.4	7.4	ND	ND	ND	ND

¹ Compliance for treatment plants that use ozone is based on a running annual average of monthly samples.

² The City of Camarillo does not treat groundwater with fluoride; however, the MWD treats its water by adding fluoride to the naturally occurring level in order to help prevent dental caries in consumers. The fluoride levels in the treated water are maintained within a range of 0.7 - 1.3 ppm, as required by the State Water Resources Control Board.

³ The State Water Resources Control Board considers 50 pCi/L to be the level of concern for beta particles.

⁴ Measures the aggressiveness of water transported through pipes. Water with <10 is highly aggressive and would be very corrosive to almost all materials found in a typical water system. Measurements >12 indicate nonaggressive water, and between 10.0 and 11.9 indicate moderately aggressive water.

⁵ Results shown are from ground water blended with Calleguas water, bringing it into compliance. Raw ground water samples alone were detected at a level exceeding the established State Secondary MCL (SMCL), which was set to protect against unpleasant aesthetic effects such as taste, odor, or staining of fixtures and clothing during laundering.

⁶ Specific Conductance detections are at a level exceeding the established State Secondary MCL (SMCL), which was set to protect against unpleasant aesthetic effects such as taste, odor, and staining of fixtures and clothing during laundering. The City of Camarillo is embarking on the construction of a water treatment plant to improve the overall quality of the ground water pumped from the Fox Canyon Aquifer. The treatment plant is scheduled to be completed by late 2018.

⁷ Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

Definitions

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as LRAAs.

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

MCLG (Maximum Contaminant Level Goal): 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. EPA.

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

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

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

PHG (Public Health Goal): 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 EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).