

A close-up photograph of water being poured from a glass pitcher into a clear glass. The water is captured in mid-pour, creating a dynamic splash and bubbles within the glass. The background is softly blurred, showing a wooden surface and another glass.

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2018

Presented By



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

PWS ID#: CA5610019

Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2018. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water.

Source Water Assessment

In May 2004 a source water vulnerability assessment of the City of Camarillo's three groundwater wells was conducted. A fourth well located at 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, discharges permitted by the National Pollutant Discharge Elimination System, storm drains and sewer collection systems, 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.

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 <http://water.epa.gov/drink/hotline>.



Where Does My Water Come From?

In 2018 City of Camarillo Water customers received approximately 39 percent local groundwater pumped from the Fox Canyon Aquifer via four city wells blended with approximately 61 percent imported water from Calleguas Municipal Water District. 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 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>.

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 and 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.

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. The U.S. Food and Drug Administration regulations and California law 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 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, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater 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.

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 we 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

NUMBER OF SCHOOLS TESTED FOR LEAD

11

Community Participation

The Camarillo City Council convenes regularly at 5 p.m. on the second and fourth Wednesday 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.



QUESTIONS?

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

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; 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 fourth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES											
				City of Camarillo Well Water 39%		Purchased Water from Calleguas MWD Jensen Plant 59%		Purchased Water from Locally Stored Surface Water Treated by Calleguas 2%			
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	VIOLATION	TYPICAL SOURCE
Aluminum (ppm)	2018	1	0.6	ND	NA	ND	ND–0.075	ND	NA	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2016, 2018	10	0.004	ND	ND–2	ND	NA	3.5	3.0–4.0	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2016	1	2	ND	NA	ND ¹	NA ¹	ND ¹	NA ¹	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Bromate² (ppb)	2018	10	0.1	NA	NA	5.2	ND–6.4	ND	ND–5.2	No	By-product of drinking water disinfection
Combined Filter Effluent Turbidity (Highest single value)	2018	TT	NA	NA	NA	.06	NA	.06	NA	No	Soil runoff
Combined Filter Effluent Turbidity (Lowest monthly percent of samples meeting the limit)	2018	TT = % of samples ≤0.3 NTU	NA	NA	NA	100%	NA	100%	NA	No	Soil runoff
Combined Radium (pCi/L)	2011, 2016	5	(0)	ND	ND–1	ND	NA	ND	NA	No	Erosion of natural deposits
Fluoride (ppm)	2016, 2018	2.0	1	0.2	ND - 0.4	System-wide: Highest RAA = 0.7; Range = 0.6 - 1.0			No	Water additive that promotes strong teeth	
Gross Alpha Particle Activity (pCi/L)	2014, 2016	15	(0)	4	ND–11	ND ³	ND–3.0 ³	ND ³	NA ³	No	Erosion of natural deposits
Gross Beta Particle Activity (pCi/L)	2016	50	(0)	NA	NA	ND	NA	ND	NA	No	Decay of natural and man-made deposits
Haloacetic Acids (ppb)	2018	60	NA	LRAA = 6.2	1–8.9	NA	NA	NA	NA	No	By-product of drinking water disinfection
Nitrate [as nitrogen] (ppm)	2018	10	10	ND	NA	0.5	0.5–0.5	ND	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

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.

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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	VIOLATION	TYPICAL SOURCE
Selenium (ppb)	2018	50	30	5.5	ND–11	ND	NA	11.5	8.0–15.0	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)	2018	[4.0]	[4.0]	HRAA = 1.2	0.99-1.38	NA	NA	NA	NA	No	Drinking water disinfectant added for treatment
TTHMs [Total Trihalomethanes] (ppb)	2018	80	NA	LRAA = 34.3	19–67	NA	NA	NA	NA	No	By-product of drinking water disinfection
Uranium (pCi/L)	2014, 2016	20	0.43	3	1–5	ND ¹	ND–1 ¹	ND ³	ND–1.4 ³	No	Erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	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 39%		Purchased Water from Calleguas MWD Jensen Plant 59%		Purchased Water from Locally Stored Surface Water Treated by Calleguas 2%			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2018	200	NS	ND	NA	ND	ND–75	ND	NA	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2016, 2018	500	NS	128	58–140	56	54–57	106	105–109	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2016, 2018	15	NS	4.3	ND–20	ND	ND–1	ND	NA	No	Naturally occurring organic materials
Corrosivity ⁴ (Units)	2016, 2018	Non-corrosive	NS	12.4	12.3–12.5	12.0	12.0–12.0	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)	2016, 2018	500	NS	ND	NA	ND ¹	NA ¹	ND ¹	NA ¹	No	Municipal and industrial waste discharges
Iron (ppb)	2018	300	NS	178.9 ⁵	ND–430 ⁵	ND ¹	NA ¹	ND ¹	NA ¹	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2018	50	NS	45.5 ⁵	27–80 ⁵	ND ¹	NA ¹	ND ¹	NA ¹	No	Leaching from natural deposits
Odor–Threshold (Units)	2016, 2018	3	NS	1	1–1	2	1–4	ND	NA	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2016, 2018	1,600	NS	1,648 ⁶	965–2,330 ⁶	436	428–444	780	758–792	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2018	500	NS	276.8 ⁵	220–340 ⁵	44	43–46	96.2	92.4–100	No	Runoff/leaching from natural deposits; industrial wastes

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	City of Camarillo Well Water 39%		Purchased Water from Calleguas MWD Jensen Plant 59%		Purchased Water from Locally Stored Surface Water Treated by Calleguas 2%		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Total Dissolved Solids (ppm)	2018	1,000	NS	730.8	650–800	243	236–254	430	400–440	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2015, 2018	5	NS	0.38	1–3	ND ¹	NA ¹	ND ¹	NA ¹	No	Soil runoff

UNREGULATED AND OTHER SUBSTANCES ⁷

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	City of Camarillo Well Water 39%		Purchased Water from Calleguas MWD Jensen Plant 59%		Purchased Water from Locally Stored Surface Water Treated by Calleguas 2%	
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH
Alkalinity (ppm)	2016, 2018	220	200–240	72	68–76	110	110–110
Bicarbonate (ppm)	2016, 2018	270	250–290	NA	NA	NA	NA
Bromochloroacetic Acid (ppb)	2018	1.7	1.1–2.5	NA	NA	NA	NA
Boron (ppb)	2016, 2018	500	200–600	100	100–100	0.3	0.2–0.3
Bromodichloroacetic Acid (ppb)	2018	0.40	ND–0.87	NA	NA	NA	NA
Calcium (ppm)	2016, 2018	100	93–227	20	19–21	35	32–38
Chlorate (ppb)	2013, 2014, 2018	58 ⁸	ND–120 ⁸	29	29–29	ND	NA
Chlorodibromoacetic Acid (ppb)	2018	0.40	ND–0.71	NA	NA	NA	NA
Dibromoacetic Acid (ppb)	2018	2.1	1.2–2.6	NA	NA	NA	NA
Dichloroacetic Acid (ppb)	2018	0.82	0.63–1.3	NA	NA	NA	NA
Germanium (ppb)	2018	0.1	ND–0.3	NA	NA	NA	NA
Hardness [Total Hardness] (ppm)	2016, 2018	574	327–821	89	84–94	154	142–165
Magnesium (ppm)	2016, 2018	43	23–62	9.7	9.5–9.9	16	15–17
Manganese (ppb)	2018	50	36–60	NA	NA	NA	NA
Microcystin [Total] (ppb)	2018	ND	NA	NA	NA	NA	NA
Monobromoacetic Acid (ppb)	2018	0.57	ND–1.4	NA	NA	NA	NA
pH (Units)	2016, 2018	7.5	7.4–7.6	8.5	8.4–8.5	8.3	8.3–8.3
Potassium (ppm)	2016, 2018	5	3–6	2.4	2.4–2.5	4	4–4
Sodium (ppm)	2016, 2018	143	89–197	46 ³	45–46 ³	95 ³	89–101 ³
Total Organic Carbon (ppm)	2018	NA	NA	2.6	2.0–2.6	2.0	1.6–2.3
Trichloroacetic Acid (ppb)	2018	0.39	ND–0.84	NA	NA	NA	NA
Vanadium (ppb)	2014, 2018	ND	NA	4 ¹	4–4 ¹	ND ¹	NA ¹

¹ Sampled in 2017.

² Compliance for treatment plants that use ozone is based on a running annual average of monthly samples.

³ Sampled in 2018.

⁴ Measures the aggressiveness of water transported through pipes. A measurement less than 10 is highly aggressive and would be very corrosive to almost all materials found in a typical water system. Measurements greater than 12 indicate nonaggressive water and between 10.0 and 11.9 indicate moderately aggressive water.

⁵ Results shown are from groundwater blended with Calleguas water, bringing it into compliance. Raw groundwater samples contained a level exceeding the established 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 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 constructing a water treatment plant to improve the overall quality of the groundwater pumped from the Fox Canyon Aquifer, scheduled to be completed by mid-2020.

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

⁸ Sampled in 2014.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

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

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 the highest 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).

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

