

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES

2017 WATER QUALITY REPORT

A Consumer Confidence Report for the Citizens of Sacramento

WATER EFFICIENCY

Water-use efficiency is a California way of life, and the City of Sacramento continues to encourage water conservation. Find tips to save water and available rebates at SacWaterWise.com

Congratulations! Your water meets or exceeds all federal and state drinking water standards.

TRADITION OF EXCELLENCE

Since its founding in 1849, the City of Sacramento has considered water quality of the utmost importance. This Consumer Confidence Report is presented to enhance your understanding of where your water comes from, what it contains, and to confirm that your drinking water continues to meet or exceed all state and federal drinking water standards.

The City of Sacramento, Department of Utilities is dedicated to providing our customers with dependable, high quality water, storm drainage and wastewater services in a fiscally and environmentally sustainable manner. In doing so, we work to conserve and preserve our water sources.

The City takes many steps to ensure high water quality including protecting our source waters, treating the water, operating our distribution system, maintaining facilities and addressing customer concerns. To actively protect water quality, management efforts on watershed, groundwater and water quality are performed.

TEAMWORK: TOGETHER WE CAN PROTECT OUR WATER RESOURCES

The City of Sacramento, Department of Utilities works hard to bring you quality drinking water. Please be careful as you live, work and play to limit what goes into the storm drains and rivers, so we can continue to preserve the quality of the water and our diverse river ecosystem.

WATER QUALITY ANALYSIS RESULTS FOR 2017

Your water meets or exceeds all federal and state drinking water standards.

The following tables show the measured amount of constituents detected in 2017 or in the most recent year sampling was required. Although the City of Sacramento tests for more than 100 substances, this report only lists those detected at or above the federal or state level for reporting.

Key Terms and Abbreviations

µS/cm	Microsiemens per centimeter; measure of electrical conductivity.
90th Percentile	The value for which 90 percent of samples had a lower result.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Constituent	A chemical or parameter measured in the water supply.
DBP	Disinfection By-Products: Substances that can form during a reaction of a disinfectant with naturally present organic matter in the water.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHG (or MCLGs) as is economically and technologically feasible. Secondary MCLs 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. Environmental Protection Agency.
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 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.
NTU	Nephelometric Turbidity Units; measures cloudiness of water.
pCi/L	Picocuries per liter; measures radiation.
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 Environmental Protection Agency.
ppb	parts per billion; one ppb is like 3 seconds in 100 years.
ppm	parts per million; one ppm is like 32 seconds in one year.
ppt	parts per trillion; one ppt is like 3 seconds in 100,000 years.
TOC	Total Organic Carbon; a measurement of the potential of water to form DBPs.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

1 Regulated for Public Health - Primary MCL

Constituent	Units	Year Sampled	State or Federal Goal PHG	Highest Amount Allowed MCL	Surface Water		Groundwater		Typical Sources
					Range	Average	Range	Average	
Aluminum	ppm	2016 - 2017	0.6	1 ^A	ND	ND	ND - 0.05	ND	Erosion of natural deposits; water treatment chemicals
Arsenic	ppb	2016 - 2017	0.004	10	ND	ND	ND - 7.0	2.7	Erosion of natural deposits
Barium	ppm	2016 - 2017	2	1	ND	ND	ND - 0.2	ND	Erosion of natural deposits
Fluoride in source water ^B	ppm	2017	1	2.0	ND	ND	ND - 0.2	0.1	Erosion of natural deposits
Gross Alpha	pCi/L	2012 - 2017	0 (MCLG)	15	ND	ND	ND - 4.9	ND	Erosion of natural deposits
Nitrate (as Nitrogen)	ppm	2017	10	10	ND	ND	ND - 4.3	1.4	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium	ppb	2016 - 2017	30	50	ND	ND	ND - 8.8	ND	Erosion of natural deposits
TOC / Control of DBP Precursors	ppm	2017	NA	2.0 (TT)	1.4		NA		Various natural and man-made sources
Turbidity	NTU	2017	NA	1 (TT)	0.13 ^C		NA	NA	Soil runoff
				Minimum 95% of samples <0.3	100% ^D		NA	NA	

Constituent	Units	Year Sampled	State or Federal Goal PHG	Highest Amount Allowed MCL	Distribution System		Typical Sources
					Range	Average	
Chlorine	ppm	2017	4 (MRDLG)	4.0 (MRDL)	ND ^E - 1.3		Drinking water disinfectant added for treatment
Fluoride ^B	ppm	2017	1	2.0	0.3 - 1.1		Water additive that promotes strong teeth
Haloacetic Acids	ppb	2017	NA	60	ND - 47 ^F		By-product of drinking water disinfection
Total Coliform Bacteria	% samples positive	2017	0 (MCLG)	5.0%	1.2% ^H		Naturally present in the environment
Trihalomethanes	ppb	2017	NA	80	ND - 78 ^F	72 ^G	By-product of drinking water disinfection

Constituent	Units	Year Sampled	State or Federal Goal PHG	Action Level	# of Samples Collected	90th Percentile Level	# of Sites Exceeding AL	Typical Sources
Lead	ppb	2017	0.2	15	62	ND	0	Internal corrosion of household water plumbing systems
Copper	ppm	2017	0.3	1.3	62	0.11	0	Internal corrosion of household water plumbing systems

NOTES: (A) Aluminum is also regulated by a Secondary MCL of 0.2 ppm. (B) In accordance with State law, the City of Sacramento adjusts the natural levels of fluoride in our water supplies to the optimal level determined by the Centers for Disease Control. More information about fluoridation is available at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml (C) Value given is the highest individual value measured during 2017. (D) 100% of turbidity measurements were in compliance during 2017. (E) Distribution samples with no detectable chlorine residual undergo further analysis to ensure compliance with microbiological water quality regulations. (F) Range is based on all individual sample values from 2017. (G) Average given is maximum of all locational running annual averages calculated during 2017. (H) Value given is the maximum percent positive of any month during 2017.

2 Regulated for Drinking Water Aesthetics - Secondary MCL

Constituent	Units	Year Sampled	State or Federal Goal PHG	Highest Amount Allowed MCL	Surface Water		Groundwater		Typical Sources
					Range	Average	Range	Average	
Chloride	ppm	2016 - 2017	NA	500	ND	ND	14 - 79	39	Erosion or leaching of natural deposits
Manganese	ppb	2016 - 2017	NA	50	ND	ND	ND - 29	ND	Leaching from natural deposits
Specific Conductance	µS/cm	2016 - 2017	NA	1600	64 - 128	96	290 - 740	421	Substances that form ions when in water
Sulfate	ppm	2016 - 2017	NA	500	5.9 - 13	9	3.3 - 34	11	Erosion or leaching of natural deposits
Total Dissolved Solids	ppm	2016 - 2017	NA	1000	47 - 86	67	198 - 466	297	Erosion or leaching of natural deposits

Constituent	Units	Year Sampled	State or Federal Goal PHG	Highest Amount Allowed MCL	Distribution System		Typical Sources
					Range	Average	
Color	color units	2017	NA	15	ND - 1		Naturally occurring organic materials
Turbidity	NTU	2017	NA	5	0.05 - 0.47		Soil runoff

3 Constituents With No Established MCL
Unregulated constituent monitoring helps determine where certain water constituents occur and whether they should be regulated

Constituent	Units	Year Sampled	PHG	Surface Water		Groundwater		Distribution System	
				Range	Average	Range	Average	Range	Average
Androstene	ppb	2014	NA	ND - 0.00034	ND	ND	ND	NA	NA
Chlorate	ppb	2014	NA	ND	ND	ND	ND	ND - 61	ND
1,4-Dioxane	ppb	2014	NA	ND	ND	ND - 0.2	ND	NA	NA
Hexavalent chromium	ppb	2016 - 2017	0.02 ^l	ND	ND	ND - 8.7	4.6	NA	NA
Molybdenum	ppb	2014 - 2015	NA	ND	ND	ND	ND	ND - 1	ND
Strontium	ppb	2014 - 2015	NA	48 - 130	76	180 - 430	273	48 - 370	192
Testosterone	ppb	2014	NA	ND - 0.00026	ND	ND	ND	NA	NA
Vanadium	ppb	2014 - 2015	NA	0.4 - 3	1.4	15 - 41	25	0.4 - 38	14

(l) There is currently no MCL for hexavalent chromium. The previous MCL of 10 ppb was withdrawn on September 11, 2017.

4 Other Parameters of Interest to Customers

Constituent	Units	Year Sampled	Surface Water		Groundwater	
			Range	Average	Range	Average
Alkalinity	ppm	2016 - 2017	19 - 43	31	97 - 226	145
Bicarbonate as HCO ₃	ppm	2016 - 2017	23 - 52	37	118 - 276	145
Calcium	ppm	2016 - 2017	8.8 - 17	13	16 - 53	28
Hardness	ppm	2016 - 2017	24 - 51	38	92 - 304	157
Magnesium	ppm	2016 - 2017	1.1 - 3.9	2.5	9.6 - 37	19
Sodium	ppm	2016 - 2017	1.8 - 5.8	3.8	19 - 42	28

WATER QUALITY REGULATIONS

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 it 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 applications 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 (U.S. EPA) and the California 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. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA Safe Drinking Water Hotline at 1-800-426-4791.

POPULATIONS WITH LOW RESISTANCE

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. U.S. EPA/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 U.S. EPA's Safe Drinking Water Hotline at 1-800-426-4791.



SACRAMENTO'S WATER SOURCE ASSESSMENT

The City of Sacramento has two independent water sources. Our primary water source is surface water from the American and Sacramento Rivers, which provides 72 percent of our water supply. Groundwater provides the remaining 28 percent. Assessments of potential contaminating activities for the City's Sacramento River and American River water sources were completed in 2000 and 2001, and most recently updated in 2015 and 2013 respectively. These reports indicated that both rivers are most vulnerable to contaminants from recreational activities and that the Sacramento River is also most susceptible to agricultural contaminants. The City of Sacramento, along with several other water utilities, updates assessments of the river water sources every five years.

An assessment of the City's groundwater wells was completed in January 2001. Due to the proximity to potential contaminant sources, the wells north of the American River are considered most vulnerable to sewage collection systems, leaking underground storage tanks, known contaminant plumes, agricultural drainage, gas stations, dry cleaners, metal plating and chemical processing storage facilities, electrical/electronic manufacturing, and automobile repair and body shops. Wells south of the American River are considered vulnerable to leaking underground storage tanks and sewage collection systems. Despite these potential vulnerabilities, your water continues to meet or exceed all state and federal drinking water standards.

Copies of the complete assessments are available for review at the City of Sacramento, Department of Utilities, 1395 35th Avenue, or call 916-808-5454 to request a summary of the assessments.

WHAT YOU SHOULD KNOW ABOUT ARSENIC

While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

WHAT YOU SHOULD KNOW ABOUT LEAD

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. City of Sacramento, Department of Utilities 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 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 U.S. EPA's Safe Drinking Water Hotline 1-800-426-4791 or at <http://www.epa.gov/lead/>.

LEAD TESTING IN SCHOOLS

Recent events in the United States have shown that lead in drinking water remains an on-going public health concern, particularly for children. In 2017, the City of Sacramento

responded proactively to a requirement from the California State Water Resources Control Board that public water systems provide assistance with testing water for lead for any local school that requests it. Through outreach efforts and coordinating with local school districts, 531 samples from 112 schools were tested by the end of 2017.

CYANOBACTERIA

Cyanobacteria, common to freshwater ecosystems, can under certain conditions form scum or "blooms" at the surface of a water body. These blooms are capable of producing compounds, some of which can be harmful to human health and others which affect the taste and odor of drinking water. While none of these compounds are presently regulated in drinking water, the City of Sacramento did voluntarily monitor for several of them during 2017.

Microcystins and cylindrospermopsin, which are subject to U.S. EPA Health Advisories, were monitored in 2017 but were not detected. Geosmin and 2-Methylisoborneol (MIB) are considered an aesthetic issue; they can give water an earthy, musty taste, even at very low levels and are not removed by conventional treatment processes. Geosmin levels ranged between non-detect and 3.3 parts per trillion while MIB results ranged between non-detect and 7.9 parts per trillion in our source water.

CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly-used filtration methods cannot guarantee 100-percent removal. Monitoring performed between 2015 and 2017 indicated that these organisms were present in one of 24 samples from the Sacramento River and zero of 24 samples from the American River. The City's treatment process ensures that the 2-log removal treatment technique MCL required by regulation is met. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks; however, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.



City of SACRAMENTO

Department of Utilities

To report a concern

City of Sacramento, Department of Utilities
311 or 916-264-5011
(24 hours a day, 7 days a week)
www.cityofsacramento.org/utilities

For questions about this report contact

Rory Hartkemeyer
916-808-3737

Additional water quality information is available

U.S. EPA Safe Drinking Water Hotline
1-800-426-4791
<http://epa.gov/ground-water-and-drinking-water>

Notice of opportunity for public participation

The Sacramento City Council holds public meetings most Tuesdays at 5 p.m. in the City Council Chambers at 915 I Street, Sacramento. You can access Council agendas at www.cityofsacramento.org/clerk.

“هذا التقرير يحتوي على معلومات مهمة تتعلق بمياه الشفة (أو الشرب).
ترجم التقرير، أو تكلم مع شخص يستطيع أن يفهم التقرير.”

Այս զեկույցը պարունակում է կարևոր տեղեկատվություն Ձեր խմելու ջրով: Թարգմանել այն, կամ խոսել մեկի հետ, ով հասկանում է այն:

此份有關你的食水報告,內有重要資料和訊息,請找他人為你翻譯及解釋清楚。

此份有关你的食水报告,内有重要资料 and 讯息,请找他人為你翻译及解释清楚。

این اطلاعیه شامل اطلاعات مهمی است که به آب آشامیدنی شما مربوط است. اگر نمیتوانید این اطلاعات را به زبان انگلیسی بخوانید لطفاً از کسی که میتواند برای شما ترجمه کند یا با او در مورد این موضوع صحبت کنید.

यह सूचना महत्वपूर्ण है।
कृपा करके किसी से :सका अनुवाद करायें।

Daimntawv tshaj tawm no muaj lus tseemceeb txog koj cov dej haus. Tshab txhais nws, los yog tham nrog tej tug neeg uas totaub txog nws.

この報告書には上水道に関する重要な情報が記されております。翻訳を御依頼なされるか、内容をご理解なさっておられる方にお尋ね下さい。

របាយការណ៍នេះមានព័ត៌មានសំខាន់ៗ
សំរាប់ទឹកបរិភោគ ។ សូមបកប្រែ
ឬពិគ្រោះជាមួយអ្នកដែលមើលយល់
របាយការណ៍នេះ ។

이 안내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시오.

ຂາຍງານນີ້ມີຂໍ້ມູນສໍາຄັນກ່ຽວກັບນໍ້າປະປາຂອງທ່ານ. ຈົ່ງໃຫ້ຄົນທີ່ມີຄວາມເຂັ້ມສ່ຽງ
ຫລືໄດ້ປຶກສາກັບຄົນໃດຄົນໜຶ່ງທີ່ເຂົາເຈົ້າເຂົ້າໃຈເລື່ອງ.

Naaiv norm sou maaiah jienv nyei fieng gorngv taux meih nyei wuom hopv. Faan fai gorngv bun mienh hiuv duqgv.

ਇਹ ਸੂਚਨਾ ਮਹੱਤਵਪੂਰਣ ਹੈ।
ਕ੍ਰਿਪਾ ਕਰਕੇ ਕਿਸੀ ਤੋ ਇਸ ਦਾ ਅਨੁਵਾਦ ਕਰਾਉ।

Acest raport conține informații importante despre apa de băut. Traduceți-o sau discutați cu cineva care o înțelege.

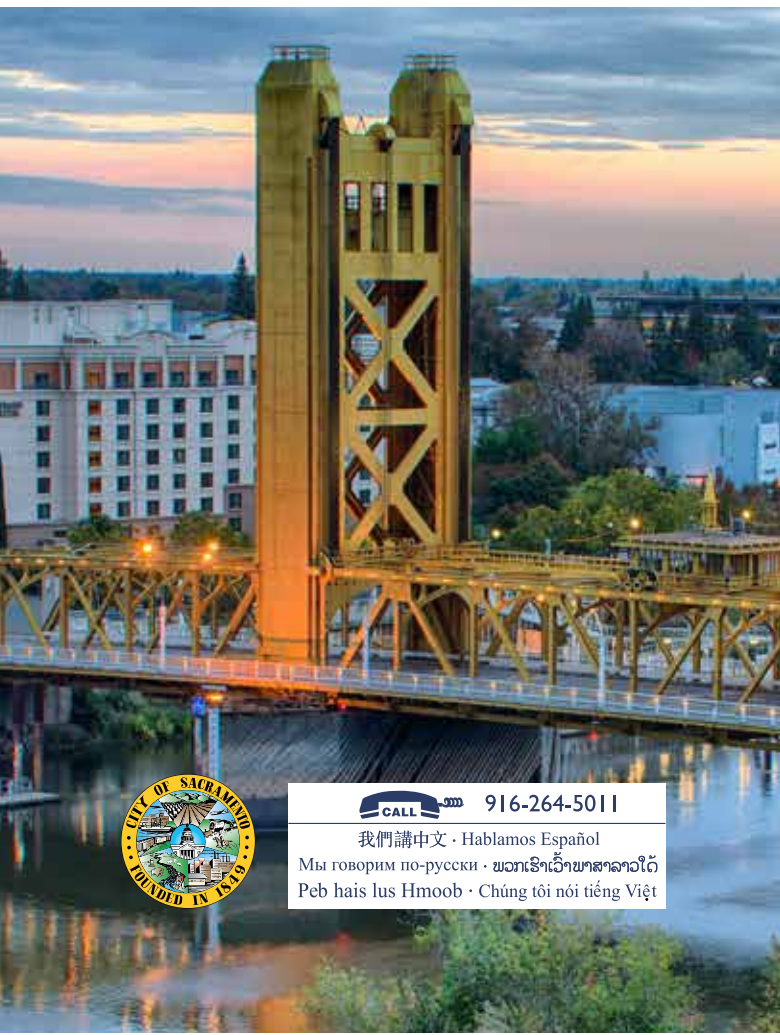
Этот отчет содержит важную информацию о вашей питьевой воды. Переведите его или поговорите с тем, кто это понимает.

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

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Цей звіт містить важливу інформацію про вашу питну воду. Перекласти його, або поговорити з кимось, хто його розуміє.

Chi tiết này thật quan trọng.
Xin nhờ người dịch cho quý vị.



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