2017 ANNUAL WATER QUALITY REPORT

LARKFIELD | PWS ID: 4910023

CALIFORNIA
AMERICAN WATER

WE KEEP LIFE FLOWING™

RICHARD SVINDLAND
President

A Message from California American Water President RICHARD SVINDLAND

Dear California American Water Customer,

Having easy access to safe, clean water is something that can be easily taken for granted. At California American Water, our top priority is providing safe, reliable drinking water to our more than 690,000 customers.

I am pleased to share with you our 2017 Consumer Confidence Report, which is a testament to the hard work and dedication of our employees who ensure high-quality drinking water.

QUALITY: We have rigorous safeguards in place to ensure the water we provide to you meets or surpasses increasingly stringent water quality standards. Across California, we conducted approximately 652 different tests on 25,239 water samples for 2,994 constituents last year. **We are proud and pleased to confirm that we met every primary and secondary state and federal water quality standard.**

SERVICE: Last year, we invested more than $92 million in water infrastructure in the California communities we serve. This investment ensures and maintains the safety and reliability of the facilities and technology needed to draw, treat, and distribute water.

VALUE: While costs to provide water service continue to increase across the country, our investments help us provide high-quality water service that remains an exceptional value, costing customers about a penny per gallon.

2017 brought fires and news stories concerning lead testing in schools across California. These events solidify the notion that water is essential for public health, fire protection, economic development and overall quality of life. That is why we are proud to continue to supply water that meets or surpasses all state and federal water quality standards.

If you have any questions or concerns, you can contact us by phone, email, online at www.californiaamwater.com, or in person at our local Customer Center. Please take the time to review this report. It provides details about the source and quality of your drinking water, using data from water-quality testing conducted for your local system between January and December 2017.

Sincerely,

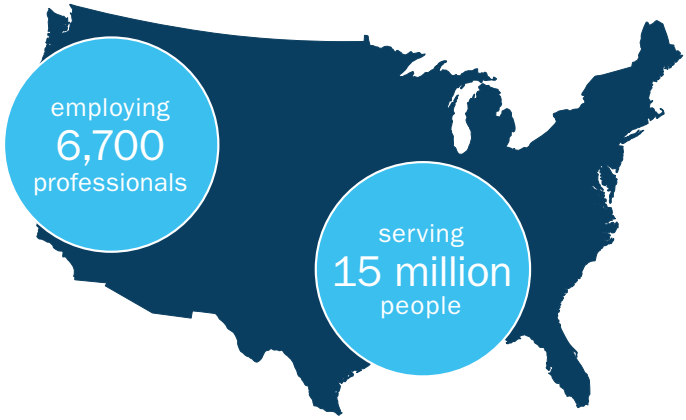
RICHARD SVINDLAND
President

OUR COMMITMENT TO QUALITY

Once again, we proudly present our Annual Water Quality Report, also referred to as a Consumer Confidence Report (CCR). This CCR covers compliance testing completed through December 2017. We are pleased to tell you that our compliance with state and federal drinking water regulations remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, environmental compliance, sustainability and community education while continuing to serve the needs of all our water users.

ABOUT CALIFORNIA AMERICAN WATER (CAW) AND AMERICAN WATER (AW)

California American Water, a subsidiary of American Water (NYSE: AWK), provides high-quality and reliable water and/or wastewater services. American Water is the largest and most geographically diverse publicly traded U.S. water and wastewater utility company. The company employs 6,700 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 47 states and Ontario, Canada. More information can be found by visiting www.amwater.com.



WHAT IS A CONSUMER CONFIDENCE REPORT (CCR)?

The Consumer Confidence Report (CCR) is an annual water quality report containing data that California American Water and all associated water purveyors collected during the past year. CCRs let consumers know what contaminants, if any, are in their drinking water as well as any related health effects. CCRs also include details about where your water comes from and how it is treated. Additionally, they educate customers on what it takes to deliver safe drinking water and highlight the need to protect drinking water sources.

In 2017, we collected numerous samples at various sampling points in your water system. The water quality data presented is a combination of data compiled from our nationally recognized water quality laboratory and local commercial laboratories; all certified in drinking water testing by the State Board's Division of Drinking Water. If you have any questions about this report or your drinking water, please contact our Customer Service Center at (888) 237-1333.

ABOUT YOUR WATER

The Larkfield water system is served by wells that pump water from the Glen Ellen formation. California American Water uses drinking water treatment technologies to remove naturally occurring arsenic, iron, and manganese as well as chlorinating the water to ensure that it meets bacteriological quality standards. We also purchase water from the Sonoma County Water Agency (SCWA). Water purchased from SCWA originates from Ranney Collectors and wells along the Russian River in the Santa Rosa Plain. The water supply is distributed for residential and commercial use.

NOTICE OF SOURCE WATER ASSESSMENT (SWA)

An assessment of the drinking water sources in the Larkfield system was completed in October 2001. Although not associated with any detected contaminants, the sources are considered most vulnerable to the following: agricultural drainage, sewer collection systems, golf courses, high-density housing, parks, storm drain discharge points, drinking water treatment plants, gas stations, utility stations (maintenance areas), agricultural and irrigation wells, parking lots, and dry cleaners.

A copy of the completed assessment may be viewed at: State Water Resources Control Board, Division of Drinking Water, Sonoma District Office, 50 D Street, Suite 200, Santa Rosa, CA 95404.

WHAT ARE THE SOURCES OF CONTAMINANTS?

The sources of drinking 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 can pick up substances resulting from animal or human activity and even radioactive material. In order to ensure that tap water is safe to drink, USEPA and the State Water Resources Control Board set regulations limiting the amount of certain contaminants in water provided by public water systems. Contaminants that may be present in source water include:

ORGANIC CHEMICAL CONTAMINANTS
including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.

INORGANIC CONTAMINANTS,
such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

PESTICIDES AND HERBICIDES,
which may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.

MICROBIAL CONTAMINANTS,
such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

RADIOACTIVE CONTAMINANTS,
which can be naturally occurring or may be the result of oil and gas production and mining activities.

FLUORIDE & RADON

FLUORIDE

Fluoride is a naturally occurring substance. It can be present in drinking water from two sources:

1. **By nature** when groundwater comes into contact with fluoride-containing minerals naturally present in the earth; or
2. **By a water purveyor** through addition of fluoride to the water they are providing in the distribution system.

In the Larkfield system, all fluoride in the water is from naturally occurring minerals and the concentrations are well below the limits for contaminants in drinking water set by the USEPA and State Water Resources Control Board, Division of Drinking Water.

RADON

Radon is a radioactive gas and known human carcinogen, found throughout the U.S., that you cannot see, taste, or smell. It can move up through the ground and into a home through cracks and holes in the foundation and 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. When entering the home through tap water, radon is usually found in minor amounts in indoor air, compared to when it enters the home through soil.

Breathing air containing radon can lead to lung cancer. Drinking water containing radon may cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air inside your home. Testing is inexpensive and easy. You should pursue radon removal if the level of radon in your air is four picocuries per liter (pCi/L) of air or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your State Radon Program at 1-800-745-7236, or the U.S. EPA Safe Drinking Water Act Hotline.

LEAD & ARSENIC

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. California American Water 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 two 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.

ARSENIC

While your drinking water meets the state and federal standard for arsenic, it does contain low levels of arsenic. The standard set for arsenic balances the current understanding of arsenic's possible health effects against the costs of removing it 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. Compliance with the arsenic standard is based on the running annual average of four consecutive quarters of monitoring.

EDUCATIONAL & SPECIAL HEALTH INFORMATION

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 at (800) 426-4791.

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 for infections. These people should seek advice about drinking water from their health care providers. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by microbial contaminants are available through the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

MEASUREMENTS

Water is sampled and tested consistently throughout the year to ensure the best possible quality. Contaminants are measured in:

- **Parts per million (ppm) or milligrams per liter (mg/L)**
- **Parts per billion (ppb) or micrograms per liter (µg/L)**
- **Parts per trillion (ppt) or nanograms per liter (ng/L)**
- **Grains per gallon (grains/gal)** – A measurement of water hardness often used for sizing household water softeners. One grain per gallon is equal to 17.1 mg/L of hardness.
- **MicroSiemens per centimeter (µS/cm)** – A measurement of a solution's ability to conduct electricity.
- **Nephelometric Turbidity Units (NTU)** – A measurement of the clarity of water. Turbidity in excess of 5 NTU is noticeable to the average person.
- **PicoCuries per liter (pCi/L)** – A measurement of radioactivity in water.

PARTS PER MILLION:
1 second
in 12 days

PARTS PER BILLION:
1 second
in 32 years

PARTS PER TRILLION:
1 second
in 32,000 years

1 second	1 second	1 second
12 days	32 years	32,000 years

HOW TO READ THIS TABLE

California American Water conducts extensive monitoring to ensure that your water meets all water quality standards. The results of our monitoring are reported in the following tables. While most monitoring was conducted in 2017, certain substances are monitored less than once per year because the levels do not change frequently. For help with interpreting this table, see the “Definition of Terms” section.

1. Starting with a **Substance,** read across.
2. **Year Sampled** is usually in 2017 or year prior.
3. **MCL** shows the highest level of substance (contaminant) allowed.
4. **MCLG** is the goal level for that substance (this may be lower than what is allowed).
5. **Average Amount Detected** represents the measured amount (less is better).
6. **Range** tells the highest and lowest amounts measured.
7. A **No** under **Violation** indicates government requirements were met.
8. **Major Sources in Drinking Water** tells where the substance usually originates.

Unregulated substances are measured, but maximum allowed contaminant levels have not been established by the government.

Water Quality Results

Regulated Substances

Substance (Units)	Year Sampled	MCL	PHG (MCLG)	Larkfiled			SCWA		Violation	Major Sources in Drinking Water
				Average Amount Detected	Range Low	Range High	Average Amount Detected	Range Low - High		
Arsenic (ppb)	2017	10	0.004	3.6	ND	6.1	ND	ND	No	Erosion of natural deposits; Runoff from orchards; Glass, and electronics production wastes
Fluoride (ppm) (naturally occurring)	2015, 2017	2	1	0.11	ND	0.57	ND	ND	No	Erosion of natural deposits; Discharge from fertilizer and aluminum factories

Distribution System Monitoring (Larkfield system service area)

Substance (Units)	Year Sampled	MCL	PHG (MCLG)	Larkfiled			SCWA		Violation	Major Sources in Drinking Water
				Average Amount Detected	Range Low	Range High	Average Amount Detected	Range Low - High		
Chlorine (ppm)	2017	MRDL=4.0	MRDLG = 4.0	0.83	0.38	2.2	NA	NA	No	Treatment chemical used to disinfect drinking water
Haloacetic Acids (ppb)[1]	2017	60	NA	4.7	4.7		NA	NA	No	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)[1]	2017	80	NA	20	ND	20	NA	NA	No	By-product of drinking water disinfection
Aluminum[2] (ppm)	2017	1	2	ND	ND	0.14	NA	NA	No	Erosion of natural deposits; residue from some surface water treatment processes
Lead (ppb)	2017	AL = 15	0.02	ND	ND	8.6	NA	NA	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

[1]The "Average Amount Detected" is the Highest Running Annual Average

[2]Aluminum is listed in both the Primary (Inorganic Chemicals) and Secondary standards.

Secondary Substances

Substance (Units)	Year Sampled	SMCL[3]	Larkfield District			SCWA		Violation	Major Sources in Drinking Water
			Average Amount Detected	Range Low	Range High	Average Amount Detected	Range Low - High		
Aluminum (ppb)	2015 - 2017	200	ND	ND	140	ND	ND	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2015 - 2017	500	16	ND	21	5.1	4.7 - 5.5	No	Runoff/leaching from natural deposits; Seawater influence
Copper (ppm)	2015, 2017	1	ND	ND	0.15	ND	ND	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron (ppb)	2017	300	ND	ND	630	ND	ND	No	Leaching from natural deposits; Industrial wastes
Manganese (ppb)	2017	50	ND	ND	140	ND	ND	No	Leaching from natural deposits
Specific Conductance (umhos/cm)	2015, 2017	1,600	357	260	400	247	230 - 280	No	Substances that form ions when in water; Seawater influence
Sulfate (ppm)	2015, 2017	500	10	ND	13	13	11 - 16	No	Runoff/leaching from natural deposits; Industrial wastes
Total Disolved Solids (ppm)	2015, 2017	1,000	235	120	270	145	140 - 160	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2017	5	0.3	ND	4.9	0.05	0.02 - 2.00	No	Soil runoff
Zinc (mg/L)	2015, 2017	5	ND	ND	0.2	ND	ND	No	Runoff/leaching from natural deposits; industrial wastes
Boron (ppm)[4]	2015, 2017	1[5]	0.21	0.18	0.25	ND	ND	No	
Vanadium (ppb)[6]	2015, 2017	50[5]	1.1	ND	30	ND	ND	No	Naturally Occuring Metal

[3]Secondary MCLs are set to protect the odor, taste, and appearance of drinking water. These contaminants are not considered to present a risk to human health at the SMCL.

[4]Based on studies in laboratory animals, the babies of some pregnant women who drink water containing boron in excess of the Notification Level may have an increased risk of developmental effects.

[5]Notification Level, not a secondary MCL.The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

[6]The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

Lead and Copper (tap water samples)

Substance (Units)	Year Sampled	Action Level	PHG (MCLG)	Number of Samples	Amount Detected (90th Percentile)	Homes Above Action Level	Violation	Major Sources In Drinking Water
Copper (ppm)	2016	1.3	0.3	21	0.384	0	No	Internal corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2016	15	0.2	21	3	0	No	Internal corrosion of household plumbing systems; Erosion of natural deposits; Discharges from industrial manufacturers

California American Water has received requests to test drinking water for lead at 4 campuses from the Mark West Union School Districts. We have completed testing at all campuses. California law makes school districts responsible for informing parents of lead testing results for their schools. Please contact your child's school or school district to get detailed results on lead testing at your child's school.

Additional Water Quality Parameters of Interest

This table shows average levels of additional water quality parameters that are often of interest to consumers. The averages shown are calculated from the levels detected at each source used to supply water is 2017. Values may vary from day-to-day. There are no health-based limits for these substance in drinking water.

Substance (Units)	Year Sampled	Larkfiled District			SCWA	
		Average Amount Detected	Range		Average Amount Detected	Range
			Low	High		Low - High
Alkalinity as CaCO3 (ppm)	2015 - 2017	146	110	160	107	100 - 120
Calcium (ppm)	2015 - 2017	20	18	23	22	20 - 25
Magnesium (ppm)	2015 - 2017	15	11	17	14	12 - 17
Potassium (ppm)	2015 - 2017	5.7	1.1	7.0	1.1	1.0 - 1.3
pH	2015 - 2017	7.5	7.2	8.2	7.3	7.1 - 7.4
Total Radon 222 (pCi/L)	2017	N/A	N/A		133	87.6 - 163
Silica (ppm)	2015, 2017	64	15	80	ND	ND
Sodium (ppm)	2015 - 2017	31	14	37	8.2	7.5 - 8.9
Total Hardness as CaCO3 (ppm)	2015 - 2017	109	96	130	111	99 - 132
Total Hardness as CaCO3 (grains/gallon)	2015 - 2016	6.4	5.6	7.6	6.5	5.8 - 7.7

Hardness is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.

DEFINITION OF TERMS

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

DDW: Division of Drinking Water

LRAA: Locational Running Annual Average

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. Secondary MCLs (SMCL) are set to protect the odor, taste, and appearance of drinking water.

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 allow for a margin of safety.

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

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.

MFL: Million fibers per liter.

micromhos per centimeter (µmhos/cm): A measure of electrical conductance.

NA: Not applicable

N/A: No data available

ND: Not detected

Nephelometric Turbidity Units (NTU): Measurement of the clarity, or turbidity, of the water.

Notification Level (NL): The concentration of a contaminant, which, if exceeded, requires notification to DDW and the consumer. Not an enforceable standard.

pH: A measurement of acidity, 7.0 being neutral.

picocuries per liter (pCi/L): Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).

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

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

parts per trillion (ppt): One part substance per trillion parts water, or nanograms per liter.

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

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 EPA.

RAA: Running Annual Average

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

SWRCB: State Water Resources Control Board

TON: Threshold Odor Number

Total Dissolved Solids (TDS): An overall indicator of the amount of minerals in water.

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

Variances and Exemptions: State or USEPA permission not to meet an MCL or utilize a treatment technique under certain conditions.

%: Percent

HOW TO CONTACT US

If you have any questions about this report, your drinking water, or service, please call California American Water's Customer Service toll free at (888) 237-1333.

WATER INFORMATION SOURCES

California American Water
www.californiaamwater.com

State Water Resources Control Board
www.swrcb.ca.gov

United States Environmental Protection Agency (USEPA)
www.epa.gov/safewater

Safe Drinking Water Hotline
(800) 426-4791

Centers for Disease Control and Prevention
www.cdc.gov

American Water Works Association
www.awwa.org

Water Quality Association
www.wqa.org

National Library of Medicine/National Institute of Health
www.nlm.nih.gov/medlineplus/drinkingwater.html

This report contains important information about your drinking water. Translate it, or speak with someone who understands it at (888) 237-1333.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien al (888) 237-1333.

Ntawm no yog ib co lus qhia tseem ceeb heev txog koj cov dej seb huv npaum li cas. Yog tias koj xav tau kev pab txhais cov lus qhia no, thov hu rau peb ntawm (888) 237-1333.

這是關於您的水質的十分重要的資訊。如果您需要幫助翻譯此資訊請致電(888) 237-1333 與我們聯繫。

आपके पानी की गुणवत्ता के बारे में यह बहुत महत्वपूर्ण सूचना है। यदि इस सूचना के अनुवाद के लिए आपको सहायता की जरूरत हो, तो कृपया (888) 237-1333 पर हमें काल करें।

Это очень важная информация о качестве Вашей воды. Если Вам требуется перевод этой информации, позвоните нам по телефону (888) 237-1333.

Ito ay isang napakahalagang impormasyon tungkol sa kalidad ng iyong tubig. Kung iyong kailangan ng tulong sa pagsalin ng impormasyon na ito, mangyaring tumawag sa amin sa (888) 237-1333.

Đây là thông tin rất quan trọng về chất lượng nước của quý vị. Nếu quý vị cần thông dịch thông tin này, xin gọi chúng tôi theo số (888) 237-1333.