



2014 Annual Water Quality Report

Larkfield
PWS ID: 4910023



A Message from California American Water President Rob MacLean

To Our Valued Customer:

As California enters our 4th year of serious drought, water is more precious now than ever.

This report includes information about the quality of the water we provide to our customers. As you read through our Annual Water Quality Report, you will see that we continue to supply water that meets or surpasses all state and federal water quality standards. Better yet, the price you pay for this high-quality water service remains about one penny per gallon.

This is an exceptional value when you consider the facilities and technology needed to draw water from the source and treat it, along with miles and miles of pipeline hidden below the ground to bring water to your tap. What's more, our plant operators, water quality experts, engineers and maintenance crews work around the clock to make sure that quality water is always there when you need it.

Delivering reliable, high-quality water service also requires significant investment to maintain and upgrade aging facilities. In 2014 alone, we invested more than \$84 million in local infrastructure across California.

Because water is essential for public health, fire protection, economic development and overall quality of life, California American Water's employees are committed to ensuring that quality water keeps flowing not only today but well into the future. We hope you agree that water is worth conserving, now more than ever.

For more information about the drought, and how we can help you save water, please visit www.californiaamwater.com/drought.

Sincerely,

Robert G. MacLean
President

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 iyang 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.

Our Commitment to Quality

Once again, we proudly present our Annual Water Quality Report. This document covers compliance testing completed through December 2014. 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, and community education while continuing to serve the needs of all our water users.

About California American Water

California American Water, a subsidiary of American Water (NYSE: AWK), provides high-quality and reliable water and/or wastewater services to more than 600,000 people.

About American Water

Founded in 1886, American Water (NYSE: AWK) is the largest and most geographically diverse publicly traded U.S. water and wastewater utility company. With headquarters in Voorhees, N.J., the company employs approximately 6,400 dedicated professionals who provide drinking water, wastewater and other related services to an estimated 15 million people in more than 45 states and parts of Canada. More information can be found at www.amwater.com.

What is a Consumer Confidence Report (CCR)?

To comply with state and U.S. Environmental Protection Agency (USEPA) regulations, California American Water issues a report annually describing the quality of your drinking water. This report is also called an Annual Water Quality Report and the purpose of this report is to raise your understanding of drinking water and awareness of the need to protect your drinking water sources. In 2014, we conducted hundreds of tests at numerous sampling points in your water system, all of which were below state and federal maximum allowable levels. This report provides an overview of last year's water quality. It includes details about where your water comes from and what it contains. The data presented in this report is a combination of data from our nationally recognized main water quality lab, and commercial laboratories, all certified in drinking water testing by the State Water Resources Control Board, Division of Drinking Water (formerly California Department of Public Health).

If you have any questions about this report or your drinking water, please call our Customer Service Center at (888) 237-1333

Share this Report

Landlords, businesses, schools, hospitals and other groups are encouraged to share this important water quality information with water users at their location who are not billed customers of California American Water and therefore do not receive this report directly.

About Your Water

Water in the Larkfield system is produced from 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

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 activities: 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.



Arsenic

While your drinking water meets the state and federal 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 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.

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 the addition of fluoride to the water before the water is put 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 that you cannot see, taste, or smell. It is found throughout the United States. 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 when showering, washing dishes, or doing other household activities with water. Compared to radon entering the home through soil, radon entering the home through tap water in most cases will be a minor 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 inside. 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 at (800) 745-7236, the USEPA Safe Drinking Water Hotline at (800) 426-4791, or the National Safety Council's Radon Hotline at (800) SOS-RADON.

What are the Sources of Contaminants?

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 human activity. Groundwater sources are typically less susceptible to surficial contaminants than surface water systems.

In order to ensure that tap water is safe to drink, the USEPA and the State Water Resources Control Board, Division of Drinking Water 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 must provide the same protection for public health.

Contaminants that may be present in source water include:

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

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.

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.

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

Source Water Protection Tips for Consumers

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water sources in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water sources.
- Pick up after your pets.
- Dispose of chemicals properly; take used motor oil and antifreeze to a recycling center. (www.emd.saccounty.net/HowDoI/DisposeofHouseholdHazardousWaste.html)
- Do not dispose of unused medications down the drain.
- Use environmentally friendly soaps and detergents when washing your vehicles.

Educational Information – 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. You can obtain more information about contaminants and potential health effects 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. 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA and the Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

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 idle 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 www.epa.gov/safewater/lead.

Water Information Sources

California American Water
www.californiaamwater.com

State Water Resources Control Board, Division of Drinking Water
www.waterboards.ca.gov/drinking_water/programs/index.shtml

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

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.

How to Read This Table

California American Water conducts extensive monitoring to ensure that your water meets water quality standards. The results of our monitoring are reported in the adjacent tables. While some monitoring was conducted in 2014, 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.

Starting with a **Substance**, read across. **Year Sampled** is usually 2014 or the most recent data from a prior year. **MCL** shows the highest level of the substance (contaminant) allowed. **PHG** (or **MCLG**) is the goal level for that substance (this may be lower than what is allowed). **Average Amount Detected** represents the (calculated) average level of that substance from the drinking water sources that California American Water used in 2014. **Range** tells



the highest and lowest amounts measured. A "No" under Violation indicates regulatory requirements were met. **Major Sources in Drinking Water** tells where the substance usually originates.

Definitions of Terms Used in This Report

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

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 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.

micromhos per centimeter ($\mu\text{mhos/cm}$): A measure of electrical conductance.

Million fibers per liter (MFL): The number of asbestos fibers (in millions) per liter that are greater than 10 microns in length.

NA: Not applicable

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 the State Water Resources Control Board, Division of Drinking Water and the consumer. Not an enforceable standard.

NR: Not reported

NR: Not reported

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 per water, or milligrams per liter.

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).

Primary Drinking Water Standard (PDWS): MCLs and MRDLs 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

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

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

TOC: Total Organic Carbon

TON: Threshold Odor Number

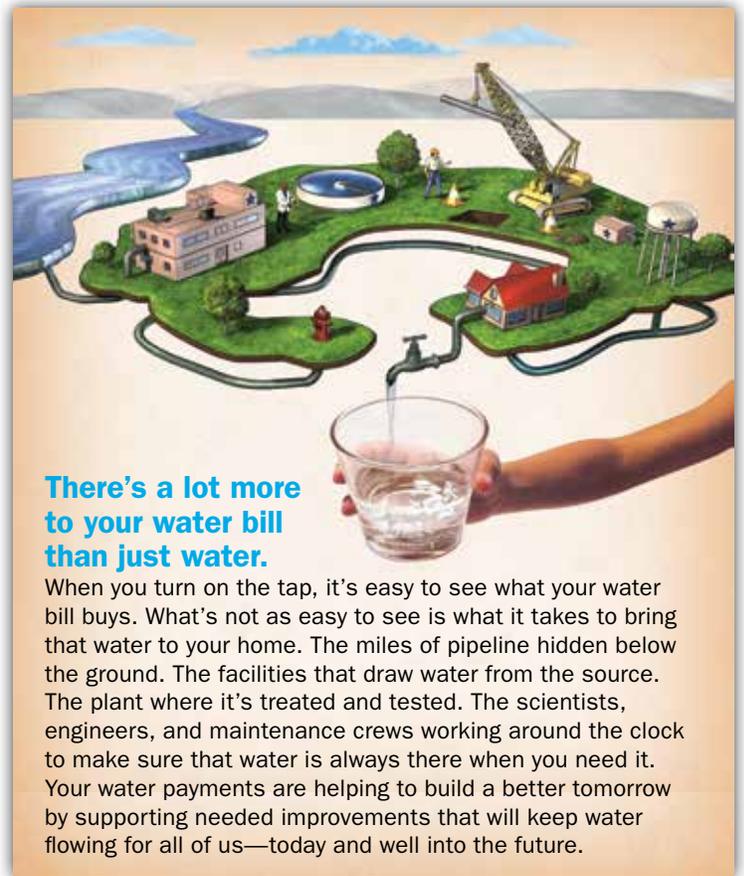
Total Dissolved Solids: An overall indicator of the amount of minerals in water.

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

Variations and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

Water Quality Statement

Last year, as in years past, your tap water met USEPA and state drinking water standards. California American Water vigilantly safeguards its water supplies, and once again we are proud to report that our system did not violate any state or federal water quality standards.



There's a lot more to your water bill than just water.

When you turn on the tap, it's easy to see what your water bill buys. What's not as easy to see is what it takes to bring that water to your home. The miles of pipeline hidden below the ground. The facilities that draw water from the source. The plant where it's treated and tested. The scientists, engineers, and maintenance crews working around the clock to make sure that water is always there when you need it. Your water payments are helping to build a better tomorrow by supporting needed improvements that will keep water flowing for all of us—today and well into the future.

Water Quality Results

Regulated Substances

| Substance (Units) | Year Sampled | MCL | PHG (MCLG) | Larkfiled | | | SCWA | | Violation | Major Sources In Drinking Water |
|--------------------------------------|--------------|-----|------------|-------------------------|-------|------|-------------------------|------------------|-----------|--|
| | | | | Average Amount Detected | Range | | Average Amount Detected | Range Low - High | | |
| | | | | | Low | High | | | | |
| Arsenic (ppb) | 2014 | 10 | 0.004 | 4 | ND | 5 | ND | ND - 5.2 | No | Erosion of natural deposits; Runoff from orchards; Glass, and electronics production wastes |
| Barium (ppm) | 2012, 2014 | 1 | 2 | 0.10 | 0.1 | | ND | ND | No | Discharges of oil drilling wastes and from metal refineries; Erosion of natural deposits |
| Hexavalent Chromium (ppb) | 2014 | 10 | 0.02 | ND | ND | | ND | ND | No | Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits. |
| Fluoride (ppm) (naturally occurring) | 2014 | 2 | 1 | 0.16 | 0.14 | 0.17 | ND | ND | No | Erosion of natural deposits; Discharge from fertilizer and aluminum factories |
| Nitrate as NO3 (ppm) | 2014 | 45 | 45 | 2.0 | 2.0 | | ND | ND | No | Runoff and leaching from fertilizer use; Leaching from septic tanks and sewage; Erosion of natural deposits |

Distribution System Monitoring

| | | | | | | | | | | |
|---|------|----------|-------------|------|------|------|----|----|----|---|
| Chlorine (ppm) | 2013 | MRDL=4.0 | MRDLG = 4.0 | 0.61 | 0.35 | 1.03 | NA | NA | No | Treatment chemical used to disinfect drinking water |
| Haloacetic Acids (ppb) ¹ | 2013 | 60 | NA | 4 | 4 | | NA | NA | No | By-product of drinking water disinfection |
| Total Trihalomethanes (TTHM) (ppb) ¹ | 2013 | 80 | NA | 16 | 16 | | NA | NA | No | By-product of drinking water disinfection |

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

Secondary Substances

| Substance (Units) | Year Sampled | SMCL | Larkfiled District | | | SCWA | | Violation | Major Sources In Drinking Water |
|-------------------|--------------|------|-------------------------|-------|------|-------------------------|------------------|-----------|---|
| | | | Average Amount Detected | Range | | Average Amount Detected | Range Low - High | | |
| | | | | Low | High | | | | |
| Chloride (ppm) | 2012 | 500 | 13 | 11 | 15 | 5.5 | 4.9 - 5.9 | No | Runoff/leaching from natural deposits; Seawater influence |
| Iron (ppb) | 2014 | 300 | ND | ND | 160 | ND | ND - 410 | No | Leaching from natural deposits; Industrial wastes |
| Manganese (ppb) | 2014 | 50 | ND | ND | 233 | ND | ND | No | Leaching from natural deposits; Industrial wastes |

| | | | | | | | | | |
|---------------------------------|------|-------|-----|-----|-----|-----|-----------|----|---|
| Odor (TON) | 2012 | 3 | 2 | ND | 6 | ND | ND | No | Naturally occurring organic material |
| Specific Conductance (umhos/cm) | 2014 | 1,600 | 380 | 340 | 460 | 245 | 220 - 300 | No | Substances that form ions when in water; Seawater influence |
| Sulfate (ppm) | 2014 | 500 | 11 | 8.4 | 12 | 12 | 10 - 16 | No | Runoff/leaching from natural deposits; Industrial wastes |
| Total Dissolved Solids (ppm) | 2012 | 1,000 | 260 | 250 | 280 | 145 | 130 - 160 | No | Runoff/leaching from natural deposits |

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) | 2013 | 1.3 | 0.3 | 20 | 0.507 | 0 | No | Internal corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| Lead (ppb) | 2013 | 15 | 0.2 | 20 | 3 | 0 | No | Internal corrosion of household plumbing systems; Erosion of natural deposits; Discharges from industrial manufacturers |

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 in 2014. Values may vary from day-to-day. There are no health-based limits for these substance in drinking water.

| Substance (Units) | Year Sampled | Larkfield District | | | SCWA | |
|-------------------------------|--------------|-------------------------|-------|------|-------------------------|-----------|
| | | Average Amount Detected | Range | | Average Amount Detected | Range |
| | | | Low | High | | |
| Alkalinity as CaCO3 (ppm) | 2014 | 183 | 160 | 230 | 107 | 96 - 130 |
| Calcium (ppm) | 2012, 2014 | 20 | 14 | 26 | 21 | 19 - 25 |
| Magnesium (ppm) | 2012, 2014 | 17 | 11 | 20 | 13 | 11 - 20 |
| pH | 2012, 2014 | 7.6 | 7.4 | 7.7 | 7.7 | 7.5 - 7.9 |
| Radon (pCi/L) | 2006, 2014 | 321 | 267 | 401 | 123 | 49 - 172 |
| Silica (ppm) | 2012 | 77 | 71 | 82 | NR | NR |
| Sodium (ppm) | 2012, 2014 | 29 | 19 | 47 | 8.6 | 7.8 - 9.7 |
| Total Hardness as CaCO3 (ppm) | 2012, 2014 | 129 | 88 | 154 | 109 | 93 - 142 |