



CALIFORNIA  
AMERICAN WATER

# 2016 ANNUAL Water Quality Report

ANTELOPE | PWS ID: 3410031





RICHARD SVINDLAND  
President

## A Message from California American Water President RICHARD SVINDLAND

Dear Customer,

On behalf of California American Water, I am pleased to share with you our 2016 Consumer Confidence Report, which provides data on your local water quality.

2016 was the fifth consecutive year we faced a drought in California. Accordingly, I want to thank you for your continued water conservation efforts. The drought was a good reminder of what a precious resource water is and how much we can do to reduce our use.

I like to think of this as our “report card” that reflects how well we were able to provide high-quality water service to our customers last year. In particular, I want to draw your attention to the sections of this report related to lead that demonstrate our compliance with the lead standard and provide helpful information for customers wishing to learn more about this topic.

In 2016, we invested more than \$60 million in local infrastructure across California to ensure the safety and reliability of the facilities and technology needed to draw and treat water. These investments also help us provide high-quality water service that remains an exceptional value, costing customers about a penny per gallon.

Water is essential for public health, fire protection, economic development and overall quality of life, and we continue to supply water that meets or surpasses all state and federal water quality standards. California American Water’s employees are committed to ensuring that quality water keeps flowing today and well into the future.

Sincerely,

A handwritten signature in blue ink.

RICHARD SVINDLAND  
President

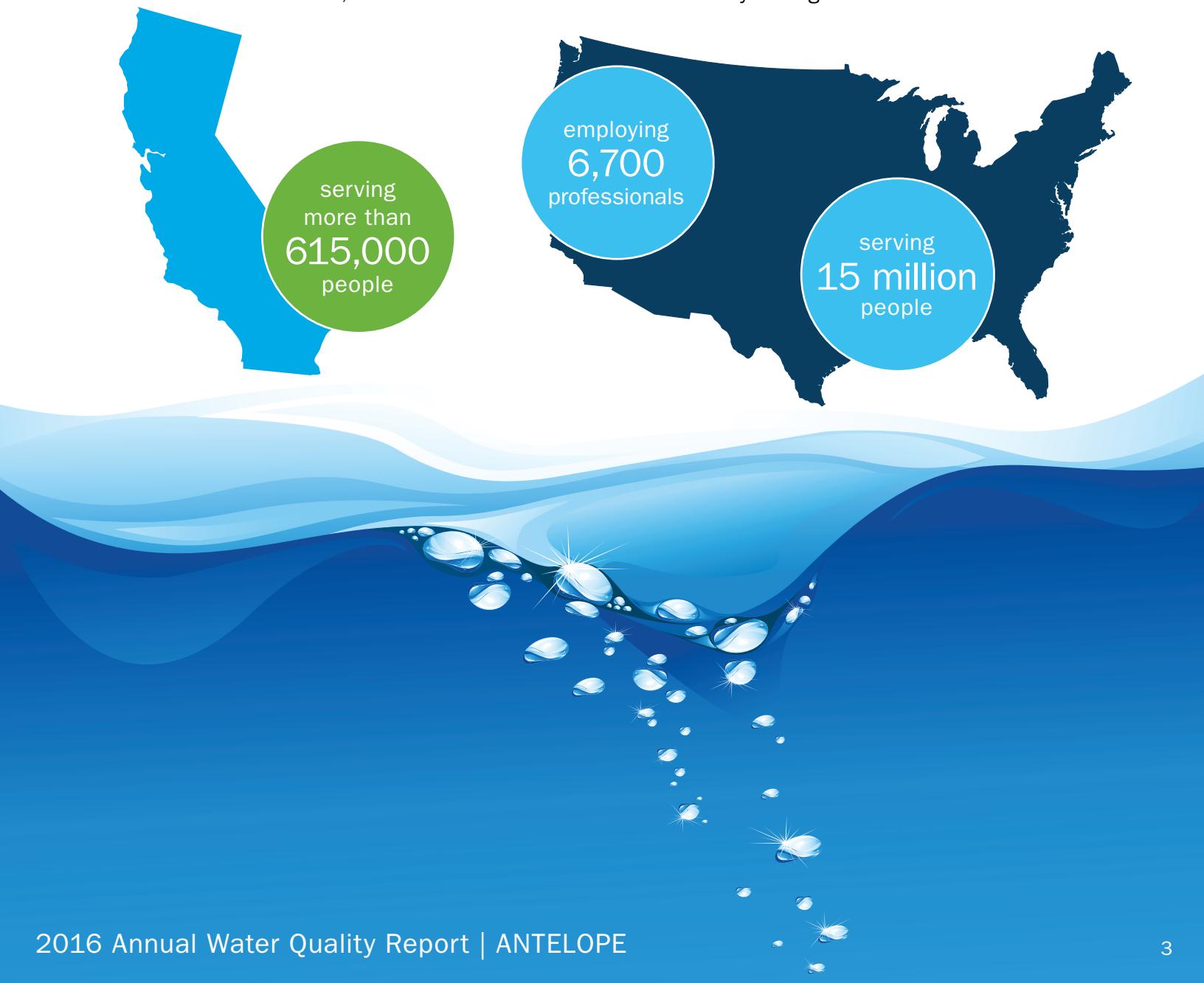


## Our Commitment to Quality

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 2016. 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](http://www.amwater.com).



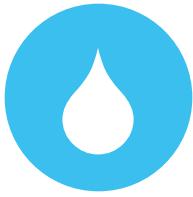


## What Is a Consumer Confidence Report (CCR)?

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 2016, 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 Antelope water system is served by deep wells that pump groundwater from aquifers here in the Sacramento Valley. All of these wells are located within the geographic boundaries of our Antelope service area. The water is chlorinated to ensure it meets bacteriological quality standards and distributed for residential and commercial use.

Some years, California American Water may also supplement the Antelope system with surface water purchased from the Sacramento Suburban Water District. The Sacramento Suburban Water District uses various surface water treatment technologies including coagulation, sedimentation, filtration and disinfection. In 2016, California American Water did not supplement the Antelope system with surface water due to the drought.





## Notice of Source Water Assessment (SWA)

An assessment of the drinking water sources in the Antelope system was completed in February 2003. Although not associated with any detected contaminants, the sources are considered most vulnerable to the following: sewer collection systems, grazing, low-density septic systems, agricultural and irrigation wells, automobile gas stations/repair shops/body shops, underground storage tanks (confirmed leaking tanks), photo processing/printing, and dry cleaners.

An assessment of the surface water source for the Sacramento Suburban Water District was conducted in 2001 by the San Juan Water District. The source is considered most vulnerable to potential contamination from Folsom Lake State Recreation Area facilities, high-density housing and associated activities such as sewer and septic systems, pesticide and herbicide application, as well as illegal activities and dumping.

A copy of the completed assessment may be viewed at: California American Water, 4701 Beloit Drive, Sacramento, CA 95838.





## 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

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.



## LEAD

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to two minutes before using tap water. Additional information is available from the USEPA Safe Drinking Water Hotline (1-800-426-4791).

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 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. [Optional: 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 <http://www.epa.gov/lead>.





## 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. 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 ( $\mu\text{g}/\text{L}$ )
- 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 ( $\mu\text{S}/\text{cm}$ ) – 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





## 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 2016, 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 2016 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) | Average Amount Detected | Range |      | Violation | Major Sources In Drinking Water  |
|--------------------------------------|--------------|-----|------------|-------------------------|-------|------|-----------|--|
|                                      |              |     |            |                         | Low   | High |           |  |
| Arsenic (ppb)                        | 2015-2016    | 10  | 0.004      | ND                      | ND    | 3    | No        | Erosion of natural deposits; runoff from orchards; Glass, and electronics production wastes  |
| Fluoride (ppm) (naturally occurring) | 2015-2016    | 2   | 1          | 0.25                    | 0.13  | 0.31 | No        | Erosion of natural deposits; discharge from fertilizer and aluminum factories  |
| Hexavalent Chromium (ppb)            | 2014-2016    | 10  | 0.02       | 4.7                     | 1.5   | 9.4  | No        | Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits. |
| Chromium (ppb)                       | 2015-2016    | 50  | (100)      | ND                      | ND    | 14   | No        | Discharge from steel and pulp mills; Erosion of natural deposits   |
| Nitrate (as nitrogen) (ppm)          | 2016         | 10  | 10         | 0.9                     | ND    | 2.0  | No        | Runoff and leaching from fertilizer use; Leaching from septic tanks and sewage; Erosion of natural deposits  |

### Distribution System Monitoring

|                                   |      |          |           |     |     |     |    |   |
|-----------------------------------|------|----------|-----------|-----|-----|-----|----|---|
| Chlorine (ppm)                    | 2016 | MRDL=4.0 | MRDLG=4.0 | 0.7 | 0.2 | 1.3 | No | Treatment chemical used to disinfect drinking water |
| Haloacetic Acids (ppb)            | 2016 | 60       | N/A       | 1   | ND  | 1   | No | By-product of drinking water disinfection           |
| Total Trihalomethanes (TTHM)(ppb) | 2016 | 80       | N/A       | ND  | ND  |     | No | By-product of drinking water disinfection           |

### Secondary Substances

| Substance (Units)                                   | Year Sampled | SMCL | Average Amount Detected | Range |      | Violation | Major Sources In Drinking Water                             |
|---|--------------|------|-------------------------|-------|------|-----------|---|
|   |              |      |                         | Low   | High |           |   |
| Chloride (ppm)                                      | 2015-2016    | 500  | 52                      | 16    | 139  | No        | Runoff/leaching from natural deposits; Seawater influence   |
| Color (units)                                       | 2015-2016    | 15   | ND                      | ND    | 5    | No        | Naturally occurring organic material                        |
| Iron (ppb)  | 2015-2016    | 300  | ND                      | ND    | 310  | No        | Leaching from natural deposits; Industrial wastes           |
| Specific Conductance ( $\mu\text{mhos}/\text{cm}$ ) | 2015-2016    | 1600 | 380                     | 240   | 620  | No        | Substances that form ions when in water; Seawater influence |
| Sulfate (ppm)                                       | 2015-2016    | 500  | 4.2                     | 1.6   | 8.7  | No        | Runoff/leaching from natural deposits; Industrial wastes    |
| Total Dissolved Solids (ppm)                        | 2015-2016    | 1000 | 273                     | 200   | 400  | No        | Runoff/leaching from natural deposits                       |
| Turbidity (NTU)                                     | 2015-2016    | 5    | 0.6                     | ND    | 2    | No        | Soil runoff   |

### 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        | 33                | 0.279                             | 0                        | No        | Internal corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives         |
| Lead (ppb)        | 2016         | 15           | 0.2        | 33                | 2                                 | 1                        | No        | Internal corrosion of household plumbing systems; Erosion of natural deposits; Discharges from industrial manufacturers |

### Unregulated Substances (Measured on the Water Leaving the Treatment Facility or within the Distribution System)

| Substance (units) | Year Sampled | Average Amount Detected | Range |      | Major Sources In Drinking Water  |
|-------------------|--------------|-------------------------|-------|------|--|
|                   |              |                         | Low   | High |  |
| Chlorate (ppb)    | 2013         | 230                     | ND    | 2380 |  |
| Strontium (ppb)   | 2013         | 212                     | 104   | 372  |  |
| Vanadium (ppb)    | 2013         | 21.4                    | 13.8  | 32.5 | 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. |

### 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 2016. Values may vary from day-to-day. There are no health-based limits for these substance in drinking water.

| Substance (Units)                                   | Year Sampled | Average Amount Detected | Range |      |
|---|--------------|-------------------------|-------|------|
|   |              |                         | Low   | High |
| Alkalinity as CaCO <sub>3</sub> (ppm)               | 2015 - 2016  | 105                     | 91    | 120  |
| Calcium (ppm)                                       | 2015 - 2016  | 22                      | 17    | 34   |
| Magnesium (ppm)                                     | 2015 - 2016  | 13                      | 9.2   | 18   |
| pH  | 2015 - 2016  | 7.6                     | 7.6   | 7.7  |
| Silica (ppm)  | 2015 - 2016  | 85                      | 79    | 92   |
| Sodium (ppm)  | 2015 - 2016  | 36                      | 13    | 56   |
| Total Hardness as CaCO <sub>3</sub> (ppm)           | 2015 - 2016  | 105                     | 81    | 160  |
| Total Hardness as CaCO <sub>3</sub> (grains/gallon) | 2015 - 2016  | 6.2                     | 4.7   | 9.4  |

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

## 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.

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

**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 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](http://www.californiaamwater.com)

### State Water Resources Control Board

[www.swrcb.ca.gov](http://www.swrcb.ca.gov)

### United States Environmental Protection Agency (USEPA)

[www.epa.gov/safewater](http://www.epa.gov/safewater)

### Safe Drinking Water Hotline

(800) 426-4791

### Centers for Disease Control and Prevention

[www.cdc.gov](http://www.cdc.gov)

### American Water Works Association

[www.awwa.org](http://www.awwa.org)

### Water Quality Association

[www.wqa.org](http://www.wqa.org)

### National Library of Medicine/National Institute of Health

[www.nlm.nih.gov/medlineplus/drinkingwater.html](http://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 पासी की गुणवत्ता के बारे में यह बहुत महत्वपूर्ण सूचना है। यदि इस सूचना के अनुवाद के लिए आपको सहायता की ज़रूरत 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 pag-salin 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.