



CALIFORNIA  
AMERICAN WATER

# 2016 ANNUAL Water Quality Report

CORONADO | PWS ID: 3710001





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 dark ink, appearing to read "Richard Svindland". The signature is fluid and cursive, written over a white background.

RICHARD SVINDLAND  
President

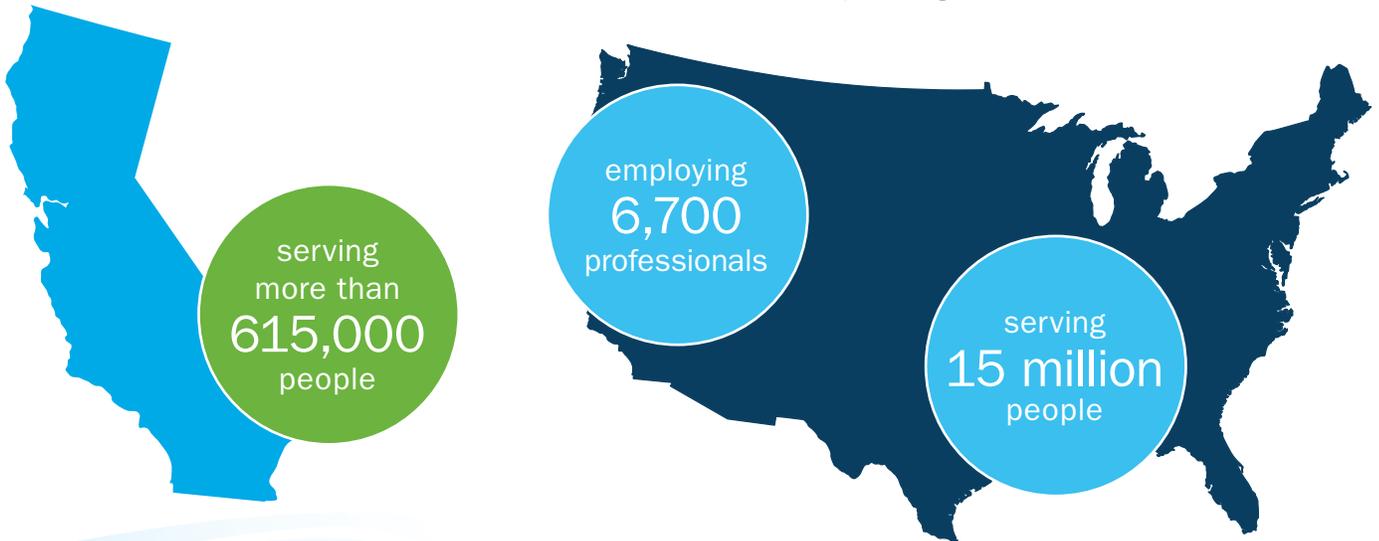


### Our Commitment to Quality

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).



serving  
more than  
**615,000**  
people

employing  
**6,700**  
professionals

serving  
**15 million**  
people



## 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 Environmental Laboratory Accreditation Program. 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 Coronado water system is served entirely by treated surface water purchased from the City of San Diego. The City of San Diego obtains 80 to 90 percent of its raw surface water supplies from the San Diego County Water Authority and the remainder from local reservoirs. The San Diego County Water Authority in turn obtains the majority of its supply from the Metropolitan Water District of Southern California (MWDSC) as well as through transfers from other water agencies. MWDSC has two main raw water sources: the Colorado River and the Sacramento River Delta. Water is conveyed to MWDSC via the Colorado and California aqueducts. The MWDSC water is then conveyed to the San Diego County area via the San Diego County Water Authority and accounts for approximately 80 to 90 percent of the City of San Diego's water supply. The City of San Diego has three water treatment plants that treat its available raw water supplies. The Coronado System receives its drinking water from only two of the City's three water treatment plants (WTPs): Alvarado and Otay. The City of San Diego water quality data presented represents the water quality data only taken from the Alvarado (Alv) and Otay WTPs. The water from the City's Miramar WTP does not reach the Coronado water system and is not included. In February 2011, the City of San Diego began fluoridating the water it produces at all its treatment plants at an optimized target level of 0.6 mg/L.





## Notice of Source Water Assessment (SWA)

The City of San Diego completed its last “Watershed Sanitary Survey (WSS)” in 2010. The 2010 WSS is available at [www.sandiego.gov/water/quality/environment/sanitarysurvey.shtml](http://www.sandiego.gov/water/quality/environment/sanitarysurvey.shtml). This survey examined the potential impacts of the watershed surrounding the nine reservoirs maintained by the City of San Diego. The executive summary of this document can be viewed by contacting the City of San Diego Water Department Public Information Officer by phone at (619) 527-3121 or by email to [water@sandiego.gov](mailto:water@sandiego.gov).

MWDSC’s surveys were completed and submitted to the State Water Board’s Division of Drinking Water in March (Colorado River) and May of 2012 (State Water Project). The survey included suggestions for how to better protect these source waters. EPA also requires utilities to complete one SWA that utilizes information collected in the watershed sanitary surveys. The SWA is used to evaluate the vulnerability of water sources to contamination and helps determine whether more protective measures are needed.

MWDSC’s supplies are considered to be most vulnerable to urban/storm water run-off, wildlife, agriculture, recreation and wastewater. A copy of the assessments can be obtained by contacting MWDSC at (213) 217-6850.





## 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.

California American Water does not add fluoride to drinking water it serves. The City of San Diego adds fluoride to the drinking water California American Water purchases.



## CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface waters throughout the U.S. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Monitoring does not indicate the presence of these organisms in either the source or finished water. 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 are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care provider regarding appropriate precautions to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water. You can obtain more information on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants by calling the USEPA's Safe Drinking Water Hotline at (800) 426-4791.



## UNREGULATED CONTAMINANT MONITORING RULE (UCMR)

The USEPA created the Unregulated Contaminants Monitoring Rule (UCMR) to assist them in the determining the occurrence of unregulated contaminants in drinking water and whether new regulations are warranted. The first Unregulated Contaminants Monitoring Rule (UCMR1) testing was completed

in 2003 for a list of contaminants specified by the USEPA. Unregulated contaminants are those for which the USEPA has not established drinking water standards. UCMR2 testing was conducted between November 2008 and August 2009, and UCMR3 assessment monitoring was conducted between January

2015 and December 2015. The results from the UCMR monitoring are reported directly to the USEPA. The results of the 2016 unregulated contaminant monitoring are incorporated in the data tables in this report as appropriate. For more information, contact our Customer Service Center at (888) 237-1333.



## CHLORAMINES

Chloramines are a California and federally approved alternative to free chlorine for water disinfection. Chloramines minimize disinfection by-product formation. Another benefit of chloramines is improved taste of the water compared to free chlorine. Chloramines are also used by many American Water systems and many other water utilities nationally. Chloramines have the same effect as chlorine for typical water uses with the exception that chloramines must be removed from water used in kidney dialysis and fish tanks or aquariums. Treatments to remove chloramines are different than treatments for removing chlorine. Please contact your physician or dialysis specialist for questions pertaining to kidney dialysis water treatment. Contact your pet store or veterinarian for questions regarding water used for fish and other aquatic life. You may also contact our Customer Service Center at (888) 237-1333 for more chloramine information.



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

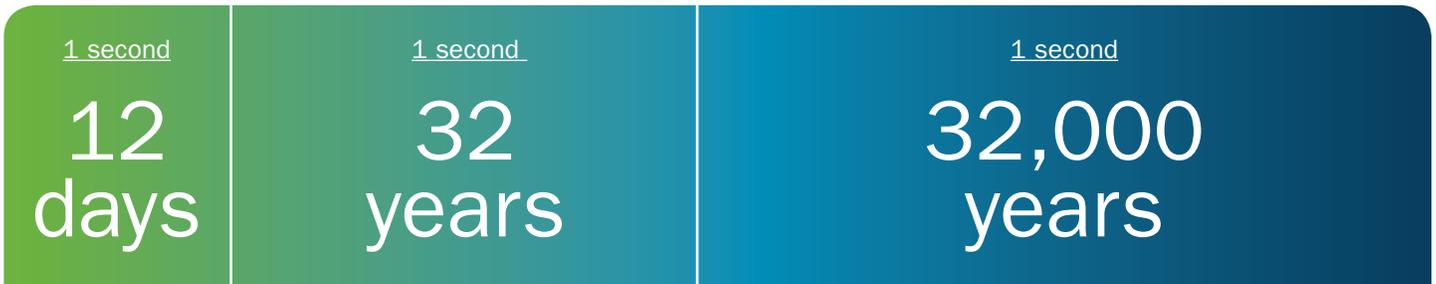
1 second  
in 12 days

### 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 - Measured on the Water Leaving the Treatment Plants (WTPs) or within the Distribution System

Substance (Units)	Year Sampled	MCL	PHG (MCLG)	CAW's Coronado Distribution System			City of San Diego's Alvarado & Otay WTPs			Violation	Major Sources In Drinking Water
				Average Amount Detected	Range		Average Amount Detected	Range			
					Low	High		Low	High		
Gross Alpha Particle Activity (pCi/L)	2015 & 2016	15	0	NA	NA	NA	3.20	ND	6.40	No	Erosion of natural deposits
Uranium (pCi/L)	2014	20	0.43	NA	NA	NA	1.95	1.80	2.10	No	Erosion of natural deposits
Fluoride (ppm)	2016	2	1	NA	NA	NA	0.45	0.20	0.80	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Total Trihalomethanes (THM)(ppb)	2016 (LRAA)	80	N/A	36.12	10.30	59.40	53.00	6.40	68.30	No	By-product of drinking water disinfection
Haloacetic Acids (ppb)	2016 (LRAA)	60	N/A	8.15	3.20	16.40	13.00	1.70	16.80	No	By-product of drinking water disinfection
Chloramine (ppm)	2016 (RAA)	MRDL=4.0 (as Cl <sub>2</sub> )	MRDL=4.0 (as Cl <sub>2</sub> )	1.43	0.15	2.20	2.00	ND	3.80	No	Drinking water disinfectant added for treatment
Chlorite (ppb)	2016	1	0.05	NA	NA	NA	0.19	ND	0.32	No	By-product of drinking water disinfection

### Secondary Substances - Measured on the Water Leaving the Treatment Plants (WTPs) or within the Distribution System

Substance (Units)	Year Sampled	SMCL	PHG (MCLG)	CAW's Coronado Distribution System			City of San Diego's Alvarado & Otay WTPs			Violation	Major Sources In Drinking Water
				Average Amount Detected	Range		Average Amount Detected	Range			
					Low	High		Low	High		
Chloride (ppm)	2016	500	NS	NA	NA	NA	98.90	80.70	122.00	No	Runoff/leaching from natural deposits; Seawater influence
Color (color units)	2016	15	NS	NA	NA	NA	ND	ND	2.00	No	Naturally-occurring organic materials
Odor (odor units)	2016	3	NS	NA	NA	NA	1.00	ND	2.00	No	Naturally-occurring organic materials
Specific Conductance (µmhos/cm)	2016	1600	NS	NA	NA	NA	1105.00	907.00	1110.00	No	Substances that form ions when in water; Seawater influence
Sulfate (ppm)	2016	500	NS	NA	NA	NA	200.50	129.00	249.00	No	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids (ppm)	2016	1000	NS	NA	NA	NA	607.50	538.00	667.00	No	Runoff/leaching from natural deposits

### Turbidity - Measured on the Water leaving the City of San Diego's Alvarado and Otay Treatment Facilities

Substance (Units)	Year Sampled	MCL	PHG (MCLG)	Highest Single Measurement	Violation	Major Sources in Drinking Water
Turbidity (NTU)	2016	TT = 1 NTU	N/A	0.12	No	Soil runoff
		TT = 95% of samples ≤0.3 NTU		100%		

### Unregulated Substances - Measured on the Water Leaving San Diego's Alvarado and Otay Water Treatment Plants

Substance (Units)	Year Sampled	Notification Level	CAW's Coronado Distribution System			City of San Diego's Alvarado & Otay WTPs		
			Average Amount Detected	Range		Average Amount Detected	Range	
				Low	High		Low	High
Boron (ppm)	2016	1	NA	NA	NA	0.015	0.11	0.17

### Lead and Copper Results - Measured on Tap Water Samples Collected Across CAW's Coronado Distribution System

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)	2015	1.3	0.3	31	0.35	0	No	Internal corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2015	15	0.2	31	1	0	No	Internal corrosion of household water plumbing system; Discharges from industrial manufacturers; Erosion of natural deposits

### Additional Water Quality Parameters of Interest

This table shows average levels of additional water quality parameters, many of which are often of interest to consumers. Values shown are averages of operating data for 2016. Values may vary from day to day. There are no health-based limits for these substances in drinking water.

Substance (Units)	Year Sampled	CAW's Coronado Distribution System		City of San Diego's Alvarado & Otay WTP's	
		Average Amount Detected	Range Low-High	Average Amount Detected	Range Low-High
Alkalinity as CaCO3 (ppm)	2016	NA	NA	130.5	108 - 170
Calcium (ppm)	2016	NA	NA	62.75	47.6 - 74.8
Magnesium (ppm)	2016	NA	NA	48.2	19.5 - 31.0
pH	2016	NA	NA	8.08	6.84 - 8.45
Sodium (ppm)	2016	NA	NA	98.9	80.7 - 122
Total Hardness as CaCO3 (ppm)	2016	NA	NA	272.5	245 - 311
Total Hardness as CaCO3 (gpg)	2016	NA	NA	15.9	14.3 - 18.2

## 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 ( $\mu\text{mhos/cm}$ ):** 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.

**Variations 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 (State Board):** [www.waterboards.ca.gov/drinking\\_water/programs-Division of Drinking Water \(DDW\)](http://www.waterboards.ca.gov/drinking_water/programs-Division of Drinking Water (DDW))

**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)

**Metropolitan Water District of Southern California:** [www.mwdh2o.com](http://www.mwdh2o.com)

**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)

**City of San Diego Water Department:** [www.sandiego.gov/water](http://www.sandiego.gov/water)

**San Diego County Water Authority:** [www.sdcwa.org](http://www.sdcwa.org)

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.