

WATER QUALITY REPORT

Santa Cruz Water Company

2019





WELCOME

We are pleased to present the 2019 annual water quality report, also known as the Consumer Confidence Report. All drinking water served by Global Water Resources (GWR) meets or exceeds federal, state and county drinking water regulations. At Global Water we take the safety of the water we provide very seriously to ensure our valued customers receive safe, reliable and clean drinking water every time you turn on your faucet. This report provides a summary of the many water quality tests and measurements taken in 2019 to ensure the safety of the water we serve.

Since Global Water was founded in 2003, we have used our Total Water Management approach to manage the entire water cycle to conserve water resources for the communities we serve. Global Water has saved over 8.4 billion gallons of water by using recycled water instead of groundwater for numerous outdoor uses. We also believe in giving our customers tools to be active participants in water conservation. Please go to www.gwresources.com/access-your-account to sign-up for free conservation resources. At Global Water, we're making the necessary investments today to ensure we have the water resources needed for generations to come.

Please visit us at www.gwresources.com to learn more or contact us at 866-940-1102 or 623-289-2090 with questions or comments.

Jon Corwin
Vice President and General Manager





CONTENTS

WELCOME	2
YOUR WATER SOURCE AND DISTRIBUTION SYSTEM	4
TOTAL WATER MANAGEMENT	6
WATER SYSTEM IMPROVEMENTS	7
WATER RESOURCES	8
2019 WATER QUALITY TESTING	9
PRIMARY CONTAMINANTS	10
WATER QUALITY TABLES	11
KEY DEFINITIONS	15
DRINKING WATER CONTAMINANTS	15
REQUIRED ADDITIONAL HEALTH INFORMATION	16
SAFE IN THE WATER	17
CONNECTING CUSTOMERS	18
RESOURCES	19

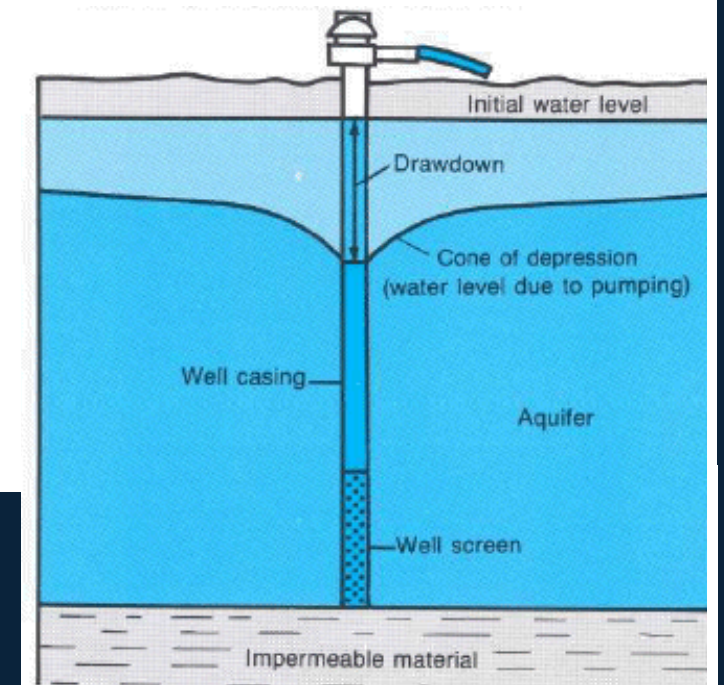


YOUR WATER SOURCE AND DISTRIBUTION SYSTEM



The water source for Santa Cruz Water Company (SCWC) is groundwater. Currently, SCWC uses seven wells. Groundwater from these wells is pumped into five storage tanks, also called reservoirs. Water from different wells is blended to improve water quality. Reservoirs are also used for continuous supply and to guarantee adequate fire protection water flows. There are 2,299 fire hydrants within the system that are flushed and maintained regularly. Flushing of the hydrants assures that they are operable, and it helps move water throughout the system while improving water quality. Water distribution is achieved with four booster stations and water mains ranging in size from 2" to 36". Water mains distribute potable water at pressures between 50 to 75 pounds per square inch. SCWC uses sodium hypochlorite for disinfection of the water. Groundwater

in Arizona is low in Total Organic Carbon (TOC). When sodium hypochlorite is added to water, it reacts with TOC to form disinfection byproducts. Due to low TOC content, these byproducts are low in potable water that originates from groundwater. We monitor drinking water from the source, from the entry point into the distribution system, and in some cases from the taps of individual homes. Detailed water quality data are listed under **WATER QUALITY TABLES** in this report (page 11).



YOUR WATER SOURCE AND DISTRIBUTION SYSTEM

Backflow and Cross-Connection:

To protect consumers from contamination caused by backflow through unprotected cross-connections, GWR requires installation and periodic testing of backflow prevention assemblies. In drinking water pipes, whether in a commercial building or in a family residence, water pressure can suddenly drop for several reasons. A drop in water pressure can occur during high water use in homes or in the distribution system (firefighting, water main break etc.). The type of backflow prevention assembly required is determined based on the hazards present at a service connection. The GWR backflow/Cross Connection Control Program assures that these assemblies are tested by a certified tester and electronic reports are maintained as needed.



Source Water Assessment (SWA):

The Arizona Department of Environmental Quality (ADEQ) evaluates each water source used by public water systems (PWS) in Arizona. These evaluations assess the hydrogeology of drinking water sources to determine the quality of groundwater being drawn into wells, the watersheds supplying surface water and the surveyed land being used for activities occurring near drinking water sources. The sources of drinking water (both tap 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 from human activity. This PWS did not receive a SWA from ADEQ because the PWS was either inactive at the time or the PWS did not exist.

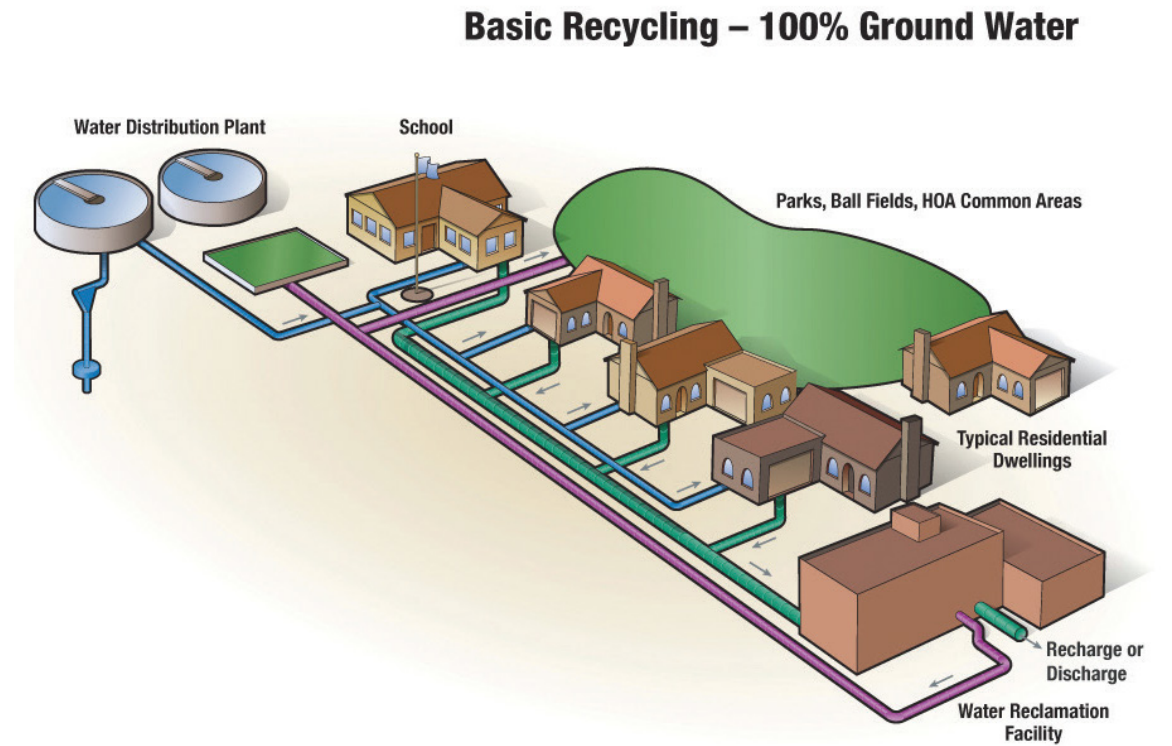


TOTAL WATER MANAGEMENT

Global Water is a water resource management company. We provide water, wastewater and recycled water services.

Recycled water is what we produce when we treat and purify wastewater. We distribute recycled water throughout the communities we serve in its own, separate system of pipes. The community uses recycled water for a variety of outdoor uses.

We call our approach "Total Water Management." We manage the entire water cycle, conserving water by using the right water for the right use. Total Water Management protects water supplies in areas with high growth and water scarcity.



Working on Water Solutions for the Next 100 Years

News headlines in Arizona have had a steady stream of water related topics in recent months. Global Water is a water resource company, and we've been working since our inception for the inevitability of water shortages in the desert. Global Water has water availability and the water rights that will allow development in the City of Maricopa to continue for the foreseeable future. However, as a region, challenges still exist. Global Water led a regional effort to obtain a \$1.36 million-dollar grant from the Bureau of Reclamation to conduct a three-year study of water resources in Pinal County. The study is now underway and is focusing on water supply, demand and future water solutions in Pinal County. These efforts will help with water solutions in the region for many generations to come.

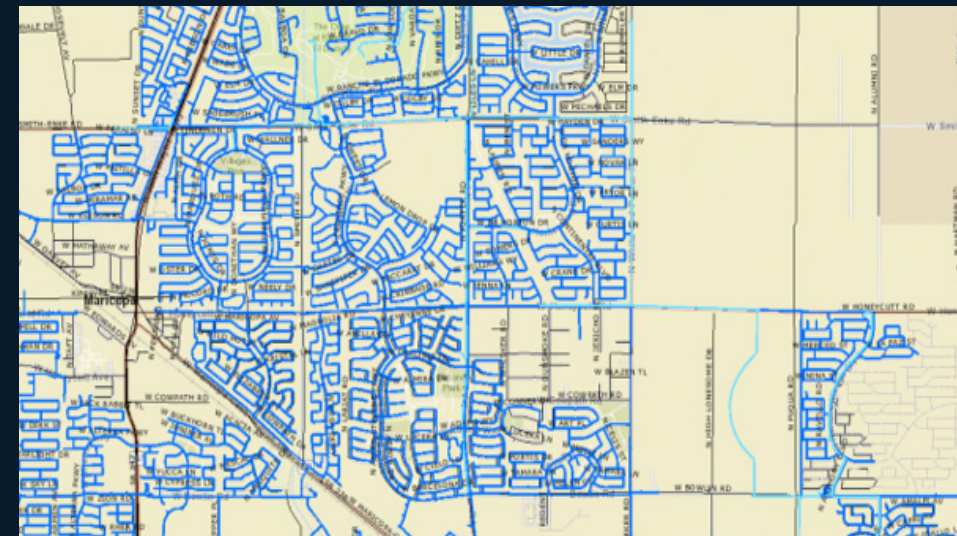


WATER SYSTEM IMPROVEMENTS

Santa Cruz Water Company improves its water system by consistently analyzing and evaluating the performance of the system's water quality and assets as the City of Maricopa's population increases. The Operations and Engineering teams analyze the water system's performance by completing physical inspections and reviewing automated control system data associated with production, consumption, flow, pressure, and water quality.

Santa Cruz Water Company has recently completed multiple capital improvement projects. Below is a brief synopsis of the improvements:

1. Rehabilitation of two groundwater storage tanks;
2. Installation of a new potable water well capable of pumping 998 million gallons per year;
3. Rehabilitation of two existing potable water wells to improve pumping capacity and efficiency;
4. Rehabilitation of one groundwater well that supplies non-potable water to lakes within the community;
5. Rehabilitation of two 16-inch potable water main lines totaling 8,227 feet;
6. Completion of a software upgrade to the Supervisory Control and Data Acquisition (SCADA) system to reduce operational costs and improve operator access and control 24 hours a day, seven days a week.



WATER RESOURCES

Overview

Global Water was founded with water scarcity in mind. Water is a very important resource in the desert southwest and we must be diligent. To that end, Global Water has taken many steps to ensure the sustainability of our utilities. Total Water Management is the bedrock to our approach to water scarcity, and it is described further in the “Total Water Management” section on page 6.

Conservation

We at Global Water also have a comprehensive conservation program to assist our customers in saving water. Important to the program is our use of advanced water meters (in most areas). By taking meter readings throughout the day we are able to determine if a leak is occurring or if there is unusually high usage. We make that information available to our customers on our website. We also offer email, text, and/or voice notifications. We do this so we can get the right information in our customers' hands, at the right time, so they can take the right and timely action. Often, it's just fixing a leaking toilet.

Planning for the Future

Smart water management begins at the planning stage. We work with cities, towns, developers, landowners, and our regulators to plan for the future. By working together, we look out into the future and plan our resources appropriately. By doing this in Maricopa we have been able to deploy an extensive reuse system allowing for the reduction in use of our source water supplies.

We work with technical groundwater scientists to understand our aquifers, plan well locations, and initiate construction projects. We also rely on sophisticated groundwater models to plan for and obtain designations of a 100-year assured water supply – a permit issued by the Arizona Department of Water Resources.

Water resources can be complex and water resource planning can be as well. We at Global Water help lead the way in local and regional planning efforts. We co-manage the Eloy and Maricopa Stanfield Basin Study, sit on the Pinal County Water Augmentation Authority, and share in leading the Pinal Groundwater Stakeholder's Group.



2019 WATER QUALITY TESTING

GWR samples and monitors over 150 possible parameters.

Compliance Monitoring:

GWR Compliance staff collects samples at well sites, treatment systems and over 60 sampling sites in the distribution system. These samples are analyzed by certified contract labs. We monitor for microbial, inorganic, organic and radiochemical attributes. Results from these samples are reported to regulatory agencies.



On-Line monitoring:

We have on-line monitors at some sites for continuous monitoring of certain parameters. These monitors help to assure water is safe before entering into the distribution system.

Field Monitoring:

Compliance staff take measurements for free chlorine, total chlorine, and pH of the samples. Required residual chlorine level protects water from microbial contamination.



PRIMARY CONTAMINANTS



Primary Drinking Water Regulations

The primary drinking water standards protect public health by limiting the levels of contaminants in drinking water. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

2019 WATER QUALITY TEST RESULTS

The following tables show detected parameters. The frequency of these samples is based on our monitoring cycle. The EPA or the State requires us to monitor for certain contaminants at a reduced frequency because the concentrations of these contaminants do not change frequently. The presence of any contaminant in drinking water does not necessarily indicate that the water poses a health risk. Unless otherwise indicated, the Tables lists all contaminants that were detected during the 2019 calendar year.



WATER QUALITY TABLES

2019 Water Quality Data Tables - Santa Cruz Water Company

Primary Contaminants								
Analyte	Unit	MCLG or MRDLG	MCL, TT, or MRDL	Lowest Level	Highest Level	Average	Compliance Achieved	Likely Source of Contamination
Inorganic Contaminants								
Arsenic	ppb	0	10	5.8	8.1	7.1	Yes	Erosion of natural deposits; runoff from glass and electronics production wastes
Fluoride	ppm	4	4	0.6	1.9	1.1	Yes	Runoff from fertilizer use and aluminum factories; erosion of natural deposits
Nitrate	ppm	10	10	3.9	6.0	4.9	Yes	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Chromium July and Nov 2018	ppb	100	100	6.5	6.7	6.6	Yes	Discharge from steel and pulp mills; erosion of natural deposits
Barium July and Nov 2018	ppm	2	2	0.052	0.069	0.061	Yes	Discharge from drilling waste; discharge from metal refineries; erosion of natural deposits
Selenium July 2018	ppb	50	50	0	2.2	1.1	Yes	Discharge from petroleum and metal refineries; discharge from mines; erosion of natural deposits
Radionuclides Contaminants								
Uranium	ppb	0	30	2.6	19.0	8.6	Yes	Erosion of natural deposits
Combined Radium	pCi/L	0	5	0.0	0.7	0.09	Yes	Erosion of natural deposits
Alpha Emitters	pCi/L	0	15	3.7	13.1	7.3	Yes	Erosion of natural deposits

Revised Total Coliform Rule (RTCR) - Microbiological							
Microbiological	MCLG or MRDLG	MCL, TT, or MRDL	Number of Positive Samples	Number of Negative Samples	Violation Y or N	Compliance Achieved	Likely Source of Contamination
E. Coli	0	0	0	735	N	Yes	Human and animal fecal waste
Fecal Indicator (From GWR source)	0	0	0	735	N	Yes	Human and animal fecal waste



WATER QUALITY TABLES

2019 Water Quality Data Tables - Santa Cruz Water Company

Disinfection and Disinfection By-Products (DBPs)

Substance	Unit	MCLG or MRDLG	MCL, TT, or MRDL	Lowest Level	Highest Level	Average	Compliance Achieved	Likely Source of Contamination
Chlorine	ppm	4	4	0.6	2.1	1.2	Yes	Water additive used to control microbes
Total Trihalomethanes (TTHM)	ppb	NA	80	<5.0	29.0	15.7	Yes	By-product of drinking water disinfection
Haloacetic Acids (HAA5)	ppb	NA	60	<2.0	3.0	2.1	Yes	By-product of drinking water disinfection

Some people who drink water containing haloacetic acid and trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems and may have an increased risk of getting cancer.

Lead and Copper

Analyte	Unit	Sampling	Action Level	Lowest Level	Highest Level	Average	90th Percent	Compliance Achieved	Likely Source of Contamination
Copper 2018	ppm	31 Samples from consumer's tap	1.3	0.002	0.028	0.039	0.065 (of 31 samples)	Yes	Corrosion of household plumbing systems; erosion of natural deposits
Lead 2018	ppb	31 Samples from consumer's tap	15	0.72	0.5	2.4	1.1 (of 31 samples)	Yes	Corrosion of household plumbing systems; erosion of natural deposits



WATER QUALITY TABLES

2019 Water Quality Data Tables - Santa Cruz Water Company

Secondary Contaminants:

EPA has established non-enforceable water quality standards for 15 contaminants. These contaminants help as guidelines in managing drinking water for aesthetic considerations, such as taste, color, hardness and odor. These contaminants are not considered any risk to human health.

Secondary Contaminants						
Analyte	Unit	MCLG or MRDLG	Lowest Level	Highest Level	Average	Likely Source of Contamination
Hardness as CaCo ₃	ppm	NA	120	260	169	Naturally present in the environment
Manganese	ppm	NA	2.7	10	5.2	Naturally present in the environment
Sodium	ppm	NA	140	180	151	Naturally present in the environment
Calcium	ppm	NA	45	89	60	Naturally present in the environment
Alkalinity	ppm	NA	53	82	65	Naturally present in the environment
Total Dissolved Solids (TDS)	ppm	NA	570	870	690	Naturally present in the environment

Water Hardness:

Groundwater, and to a certain extent surface water, in Arizona is expected to be “hard”. This is a result of the natural formation of the aquifers in the state, and the geologic history of the area. Hardness is NOT a health concern. Hardness is essentially the amount of calcium and magnesium carbonates dissolved in water. The degree of hardness is determined by the concentrations of calcium and magnesium.

Hardness in groundwater in the SCWC service area varies from 120 mg/L to 260 mg/L or from 7.0 to 15.2 grains/gallon. Hardness is not regulated by the Safe Drinking Water Act; however, we monitor hardness in order to inform our customers.



WATER QUALITY TABLES

2019 Water Quality Data Tables - Santa Cruz Water Company

The Environmental Protection Agency (EPA) Fourth Unregulated Contaminant Monitoring Rule (UCMR4) requires water systems of more than 10,000 connections to monitor for certain contaminants that are suspected to be present in drinking water that do not have health-based standards set under the Safe Drinking Water Act. The table below lists the unregulated contaminants that we detected in the drinking water in 2018. For additional information about the UCMR4, please contact the EPA at 800-949-1581, or at <https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule>.



Fourth Unregulated Contaminant Monitoring Rule (UCMR4)

Substance	Unit	MCLG or MRDLG	Lowest Level	Highest Level	Average	Likely Source of Contamination
Brominated Haloacetic Acid (HAA) Groups						
HAA6 Mar, Apr, and Aug 2018	ppb	NA	1.6	12.6	4.2	By-product of drinking water disinfection
HAA9 Mar, Apr, and Aug 2018	ppb	NA	1.6	12.9	4.4	By-product of drinking water disinfection
Metals						
Germanium Feb and Aug 2018	ppb	NA	0.67	0.89	0.78	Naturally present in the environment
Manganese Feb and Aug 2018	ppb	NA	NA	1.9	NA	Naturally present in the environment

Public Notification of Failure to Report on Time: GWR 3rd Quarter, 2019 Maximum Residual Disinfectant Level (MRDL) reports to Arizona Department of Environmental Quality (ADEQ) were required to be submitted on October 10th, 2019 but were submitted on October 22nd, 2019. This resulted in a late reporting violation. The deficiency was corrected and returned to compliance. There is no reason to believe that this late reporting had an adverse impact on public health.



KEY DEFINITIONS

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

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment, or other requirements

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in 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

Maximum Residual Disinfectant Level (MRDL): The level of disinfectant added for water treatment that may not be exceeded at the consumer's tap

Maximum Residual Disinfectant Level Goal (MRDLG): The level of disinfectant added for treatment at which no known or anticipated adverse effect on health of persons would occur

Not Applicable (NA): Sampling was not completed by regulation or was not required

Not Detected (ND or <): Not detectable at reporting limit

Nephelometric Turbidity Units (NTU): A measure of water clarity

ppm: Parts per million or Milligrams per liter (mg/L)

ppb: Parts per billion or Micrograms per liter (µg/L)

pCi/L: Measure of the radioactivity in water

DRINKING WATER CONTAMINANTS

Microbial Contaminants: Such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife

Inorganic Contaminants: Such as salts and metals that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming

Pesticides and Herbicides: Such as agriculture, urban storm water runoff, and residential uses that may come from a variety of sources

Organic Chemical Contaminants: Such as synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.

Radioactive Contaminants: That can be naturally occurring or be the result of oil and gas production and mining activities.



REQUIRED ADDITIONAL HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Arsenic:

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA 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.

Nitrate:

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

Uranium:

Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.

Lead in drinking water and its effects on children:

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Global Water Resources is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at www.epa.gov/safewater/lead.

Fluoride:

Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth.



Safe In The Water



Through a GWR partnership with MUSD (City of Maricopa Unified School District) and the City of Maricopa:

- 198 first grade students received swim lessons as part of the school day
- 190 of the students were able to jump in the water and return safely to the wall after completing the program
- 90% of parents felt their children now have a better chance of survival if they fell in the water unattended
- 100% of the parents felt an increase in their child's confidence around water



CONNECTING CUSTOMERS

Customer Assistance Program

Global Water has expanded our Customer Assistance Program. The revised program is effective immediately. The expanded program provides assistance to customers for the following purposes:

- Low-Income Assistance (eligibility increased from 200% of Federal Poverty Level to 300%)
- Deployed Service Member Assistance (new program)
- Disabled Veteran Assistance (new program)
- Furloughed Worker Assistance (new program)
- Medical Hardship Assistance (new program)

If you are a Global Water customer who is in need of assistance, you can find more information about our Customer Assistance Program at:

<https://www.gwresources.com/customer-assistance>

or you can call us at 866-940-1102.

Sign-Up For The Customer Portal

1. Go to [gwresources.com/access-your-account](https://www.gwresources.com/access-your-account).
2. Enter your Account Number.
3. Enter your email address and click "reset password".

This will instantly generate an email that will allow you to begin the set-up process.

4. Re-establish your leak and consumption alerts.
5. You will have the flexibility to set up your new profile now or later.



Portal Features

- View and pay your bill on-line or on your smart phone.
- Set up automated leak and high consumption alerts.
- Set up automatic payments.
- View hourly, daily, weekly and monthly reads.
- Manage multiple accounts (great for property managers & HOAs).
- Provide account access to multiple people.



WEBSITE

www.GWResources.com

Additional Helpful Links

U.S. EPA's Safe Drinking Water Hotline

Phone: 800-426-4791

Website: www.epa.gov/safewater

Pinal County Environmental Services

Phone: 520-866-6681

Website: www.pinalcountyz.gov/PublicWorks/EnvironmentalServices/Pages/Home.aspx

Arizona Department of Environmental Quality

Phone: 602-771-2300

Website: www.azdeq.gov/wqd

More Resources

www.WaterUseItWisely.com

www.TapIntoQuality.com

Maricopa County Environmental Services Department

Phone: 602-506-6666

Website: www.maricopa.gov/EnvSvc/WaterWaste



RELIABLE



Global Water invests in people, processes, and technology to be one of the most efficient and reliable operations in the industry.

RENEWABLE



Global Water manages precious water resources to protect and create long-term renewable water supplies in our utilities.

REUSABLE



Global Water cleans and treats discarded water, creating a reusable source of water for irrigation, while preserving potable water for drinking.

