

# WATER QUALITY REPORT



Sunshine Water Company

2020





# WELCOME

We are pleased to present the 2020 annual water quality report, also known as the Consumer Confidence Report. All drinking water served by Global Water meets or exceeds federal, state and county drinking water regulations. Despite the challenges presented by COVID-19 this past year, we remain focused on our top priority of ensuring 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 2020 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 9.2 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](http://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](http://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





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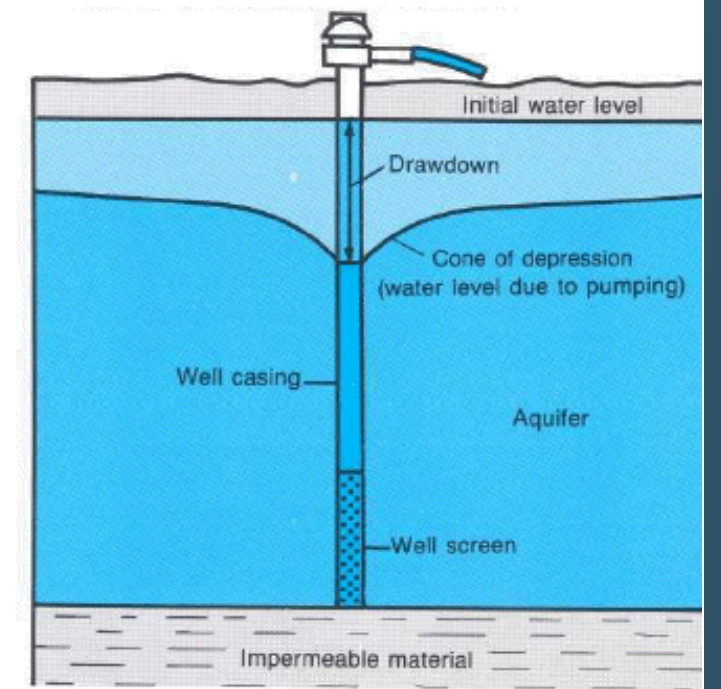


# YOUR WATER SOURCE AND DISTRIBUTION SYSTEM



The water source for Sunshine is groundwater. Currently, Sunshine uses two wells. Groundwater from these wells is pumped into two storage tanks, also called reservoirs. Reservoirs are also used for continuous supply and to guarantee adequate fire protection water flows. There are eight 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 one booster station and water mains ranging in size from 2" to 14". Water mains distribute potable water

at pressures between 60 to 70 pounds per square inch. Sunshine 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 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. In 2004 the Arizona Department of Environmental Quality (ADEQ) completed a Source Water Assessment for the well-used by Sunshine. The assessment reviewed the hydrogeologic conditions and adjacent land uses that may pose a potential risk to the water sources. These risks include, but are not limited to, gas stations, landfills, dry-cleaners, agriculture, wastewater treatment plants, and mining activities. Once ADEQ identified the adjacent land uses, they were ranked as to their potential to affect the water sources. The assessment determined that the wells had a low risk of contamination due to adjacent land use. The water is currently protected by well construction and system operations and management. The complete assessment is available for inspection at ADEQ.

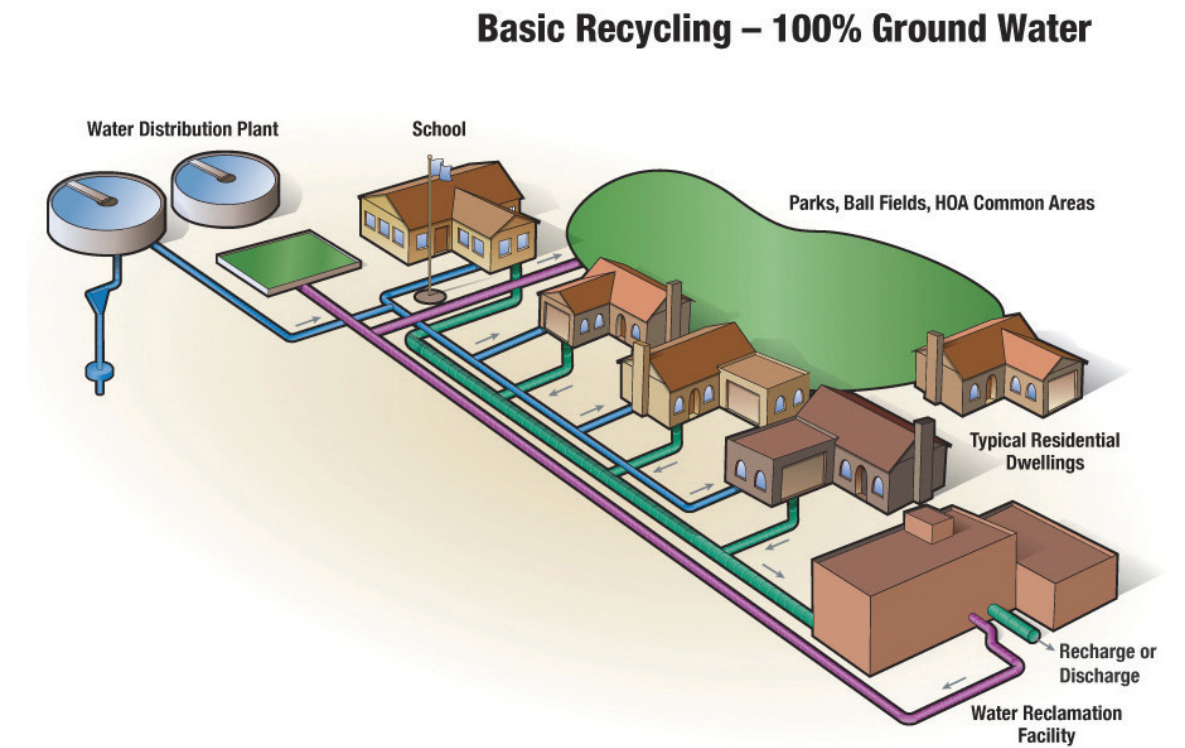


# TOTAL WATER MANAGEMENT

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.

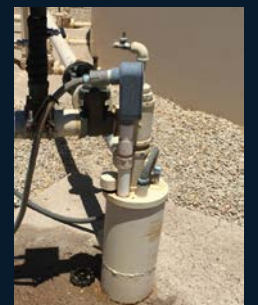
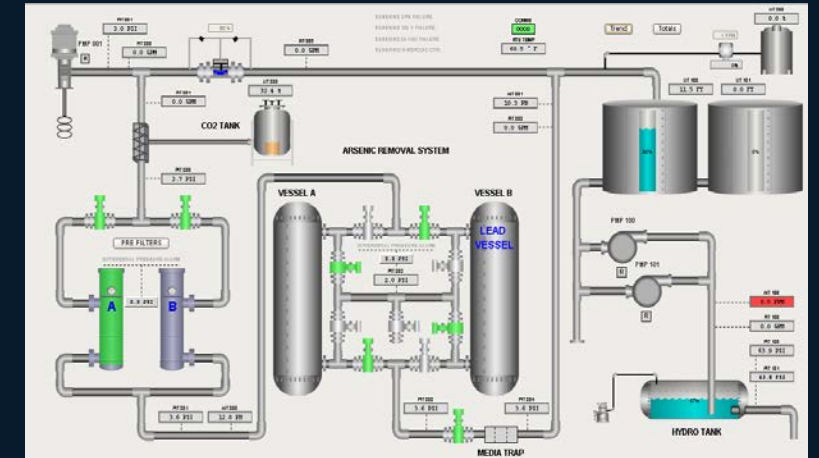


# WATER SYSTEM IMPROVEMENTS

Sunshine improves its water system by consistently analyzing and evaluating the performance of the system's water quality and assets as the system's population increases. The Operations and Engineering team 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.

Sunshine recently completed a few capital improvements to its water system. Below is a brief synopsis of the improvements:

1. Installed a new 50,000 gallon Ground Storage Tank increasing the storage capacity of the system. The tank was completed in 2019.
2. The completion of electrical upgrades and the installation of a generator and automatic transfer switch for emergency backup power;
3. Installed a new potable water well that provides redundancy to the system. The well was completed in the summer, 2020;
4. 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.



# ASSET MANAGEMENT

0.794	0.869	0.415	0	0	0	0	0	0	0	0	0	0	0	0	0
0.980	0.622	0.599	0.00	0.00	0.00	0.00	0.00	0.43	0.16	0.88	0.53	0.03	0.67	1	0.697
0.675	0.550	0.022	0.00	0.00	0.00	0.00	0.00	0.18	0.41	0.54	0.10	0.67	0.35	0	0.733
0.070	0.986	0.174	0.00	0.00	0.00	0.00	0.00	0.18	0.62	0.38	0.98	0.25	0.14	0	0.464
0.102	0.980	0.905	0.00	0.00	0.00	0.00	0.00	0.60	0.70	0.93	0.66	0.28	0.24	0	0.339
0.507	0.625	0.042	0.00	0.00	0.00	0.00	0.00	0.44	0.20	0.92	0.55	0.53	0.39	0	0.303
0.632	0.349	0.778	0.00	0.00	0.00	0.00	0.00	0.51	0.29	0.91	0.05	0.37	0.73	1	0.960

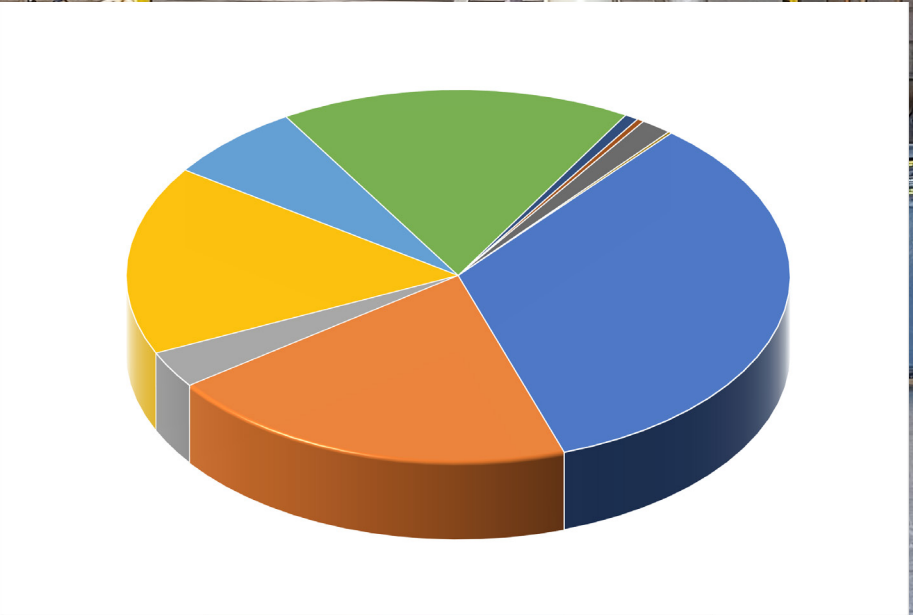
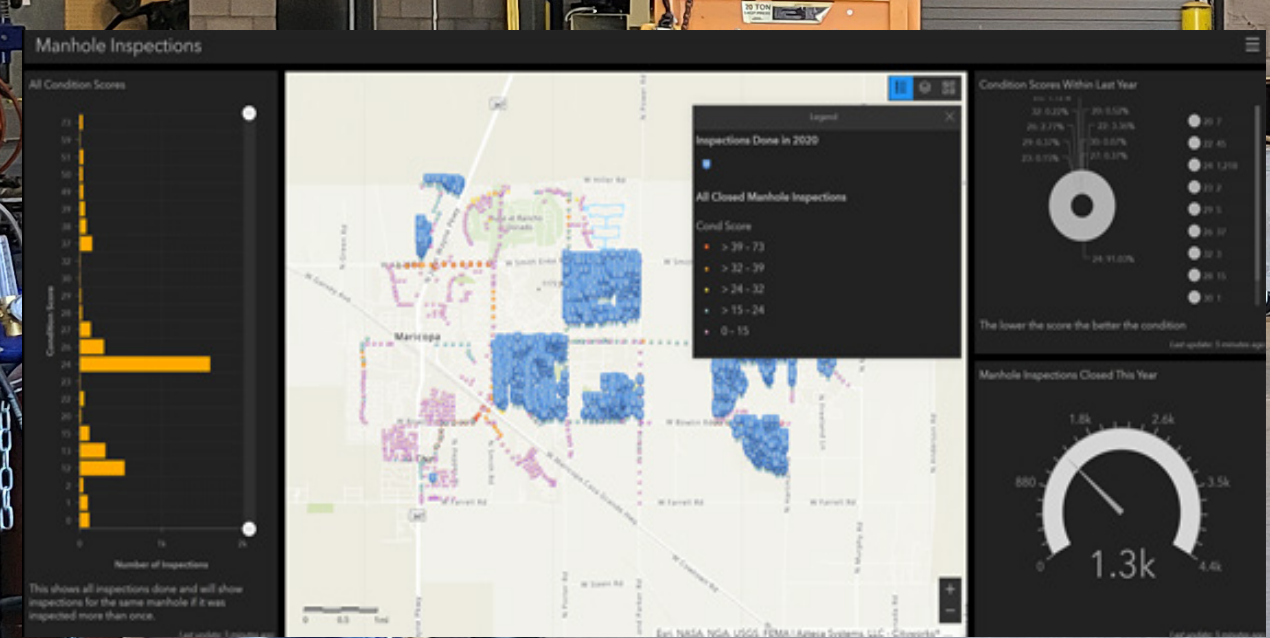
Global Water Resources, Inc. (Global Water) uses a structured, proven Asset Management philosophy that focuses on improved reliability of services, higher water quality results, and dedicated customer service. We are committed to providing our customers the best services available in a safe environment and at the most affordable rates.

Maintenance and Reliability methodologies align with world class best practices, follow ISO 55000 Standards and Guidelines, and adhere to all regulatory requirements. Global

Water believes that maintaining well running equipment is the best way to control operational costs and provide the best value for customers, shareholders, as well as our employees.

Designing effective systems, selecting the right equipment, carefully operating and skillfully maintaining and repairing our fixed assets, and replacing worn and obsolete equipment before they fail allows the utilities to run more efficiently and reliably.

Global Water maintains nearly 150,000 assets, both above and below ground. We accomplish this with the latest technology, including GPS capable devices, drones, cameras, real-time asset health monitoring instruments, and well-trained utility and field technicians, analysts and quality specialists.



# WATER RESOURCES

## Overview

Global Water was founded with water scarcity in mind. Water is a very important resource in the desert southwest and must be used and managed wisely. Global Water has taken many steps to ensure the sustainability of our utilities. Total Water Management is our approach to managing water scarcity and is described further in the “Total Water Management” section on page 6.

## Conservation

As part of our commitment to managing water scarcity, we have built a conservation program that combines education, outreach, and modern technology. Presentations on indoor/outdoor water conservation practices are made available to schools and community groups. Tours of our water treatment facilities are available upon request.

In addition to educational resources, many of our customers have advanced water meters. Near real-time water use data is available through our website and is used to help identify leaks. If a potential leak is detected, notifications are sent out to customers via email, text, and/or voice notifications. This information enables customers to make informed decisions and take timely action to address leaks. We estimate that in 2020, 11.9 million gallons of water was saved using these advanced meters and leak notifications.

## Planning for the Future

Effective water management begins at the planning stage. We work with cities, towns, developers, landowners, and regulators to plan for the future because a path to a sustainable future is only possible together. Collaboration has allowed us to deploy an extensive water recycling system in the City of Maricopa which saves water by reducing the reliance on other water sources like groundwater.

We work with expert 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.

Global Water is proud to 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.



# 2020 WATER QUALITY TESTING

GWR samples and monitors over 150 possible parameters.

## **Compliance Monitoring:**

GWR Compliance staff collects samples at well sites, treatment systems and 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. 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

## 2020 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 2020 calendar year.



# WATER QUALITY TABLES

## 2020 Water Quality Data Tables - Sunshine:

### 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	5.5	8.1	6.2	Yes	Erosion of natural deposits; runoff from glass and electronics production wastes
				RESULTS				
Fluoride 2018	ppm	4	4	1.6			Yes	Runoff from fertilizer use and aluminum factories; erosion of natural deposits
Nitrate	ppm	10	10	3.6			Yes	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Barium 2018	ppm	2	2	0.034			Yes	Discharge of drilling wastes and metal refineries; Erosion of natural deposits
Chromium 2018	ppb	100	100	19			Yes	Discharge from steel and pulp mills; Erosion of natural deposits
Radionuclide Contaminants								
Combined Radium 2015	pCi/L	0	5	0.4			Yes	Erosion of natural deposits
Alpha Emitters 2015	pCi/L	0	15	1.4			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	12	N	Yes	Human and animal fecal waste
Fecal Indicator <small>(From GWR source)</small>	0	0	0	12	N	Yes	Human and animal fecal waste



# WATER QUALITY TABLES

## 2020 Water Quality Data Tables - Sunshine:

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	1	1.4	1.2	Yes	Water additive used to control microbes
Disinfection By-Products (DBPs)				Results				
Total Trihalomethanes (TTHM)	ppb	NA	80	<0.5			Yes	By-product of drinking water disinfection
Haloacetic Acids (HAA5)	ppb	NA	60	<1.0			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	5 Samples from consumer’s tap	1.3	0.03	0.43	0.20	0.35 (of 5 samples)	Yes	Corrosion of household plumbing systems; erosion of natural deposits
Lead 2018	ppb	5 Samples from consumer’s tap	15	<0.5	1.3	0.65	1.2 (of 5 samples)	Yes	Corrosion of household plumbing systems; erosion of natural deposits



# WATER QUALITY TABLES

## 2020 Water Quality Data Tables - Sunshine:

### 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 - 2020 data	Unit	MCLG or MRDLG	Results	Likely Source of Contamination
Hardness as CaCo3	ppm	NA	44	Naturally present in the environment
Magnesium	ppm	NA	2.8	Naturally present in the environment
Sodium	ppm	NA	79	Naturally present in the environment
Sulfate	ppm	NA	46	Naturally present in the environment
Calcium	ppm	NA	13	Naturally present in the environment
Alkalinity	ppm	NA	130	Naturally present in the environment
Total Dissolved Solids (TDS)	ppm	NA	290	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 Sunshine service area is 44 mg/L or from 2.57 grains/gallon.

Hardness is not regulated by the Safe Drinking Water Act; however, we monitor hardness in order to inform our customers.



# 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](http://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.



# 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. 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 automatic payments.
- View monthly reads.
- Manage multiple accounts (great for property managers & HOAs).
- Provide account access to multiple people.



WEBSITE

[www.GWResources.com](http://www.GWResources.com)

### Additional Helpful Links

#### U.S. EPA's Safe Drinking Water Hotline

Phone: 800-426-4791

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

#### Arizona Department of Environmental Quality

Phone: 602-771-2300

Website: [www.azdeq.gov/wqd](http://www.azdeq.gov/wqd)

#### Maricopa County Environmental Services Department

Phone: 602-506-6666

Website: [www.maricopa.gov/EnvSvc/WaterWaste](http://www.maricopa.gov/EnvSvc/WaterWaste)

#### Pinal County Environmental Services

Phone: 520-866-6681

Website: [www.pinalcountyz.gov/PublicWorks/EnvironmentalServices/Pages/Home.aspx](http://www.pinalcountyz.gov/PublicWorks/EnvironmentalServices/Pages/Home.aspx)

#### More Resources

[www.WaterUseltWisely.com](http://www.WaterUseltWisely.com)

[www.TapIntoQuality.com](http://www.TapIntoQuality.com)



#### 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.

