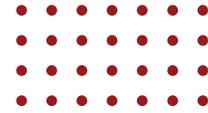




Town of Cave Creek



# 2024 ANNUAL WATER QUALITY REPORT DESERT HILLS WATER SYSTEM

PWS ID: 04-07-026



# ***There Were No Violations of Water Quality Standards for the Desert Hills Water System in Calendar Year 2024.***



“The Town of Cave Creek is dedicated to conserving, protecting, and enhancing water resources to ensure a safe and reliable drinking water supply.”

- Robert Morris, Town of Cave Creek Mayor

Water is a precious natural resource, vital to our desert community, and essential for everyday life. We will continue to innovate to ensure a safe and sustainable drinking water supply now and in the future at a fair price.

It begins with our Town staff, who work hard to bring you safe and reliable drinking water every time you pour a glass. Our stewardship begins with a focus on water quality and customer satisfaction. We continually strive to improve our services by fostering new ideas in sustainable technologies and practices to make our operations more efficient.

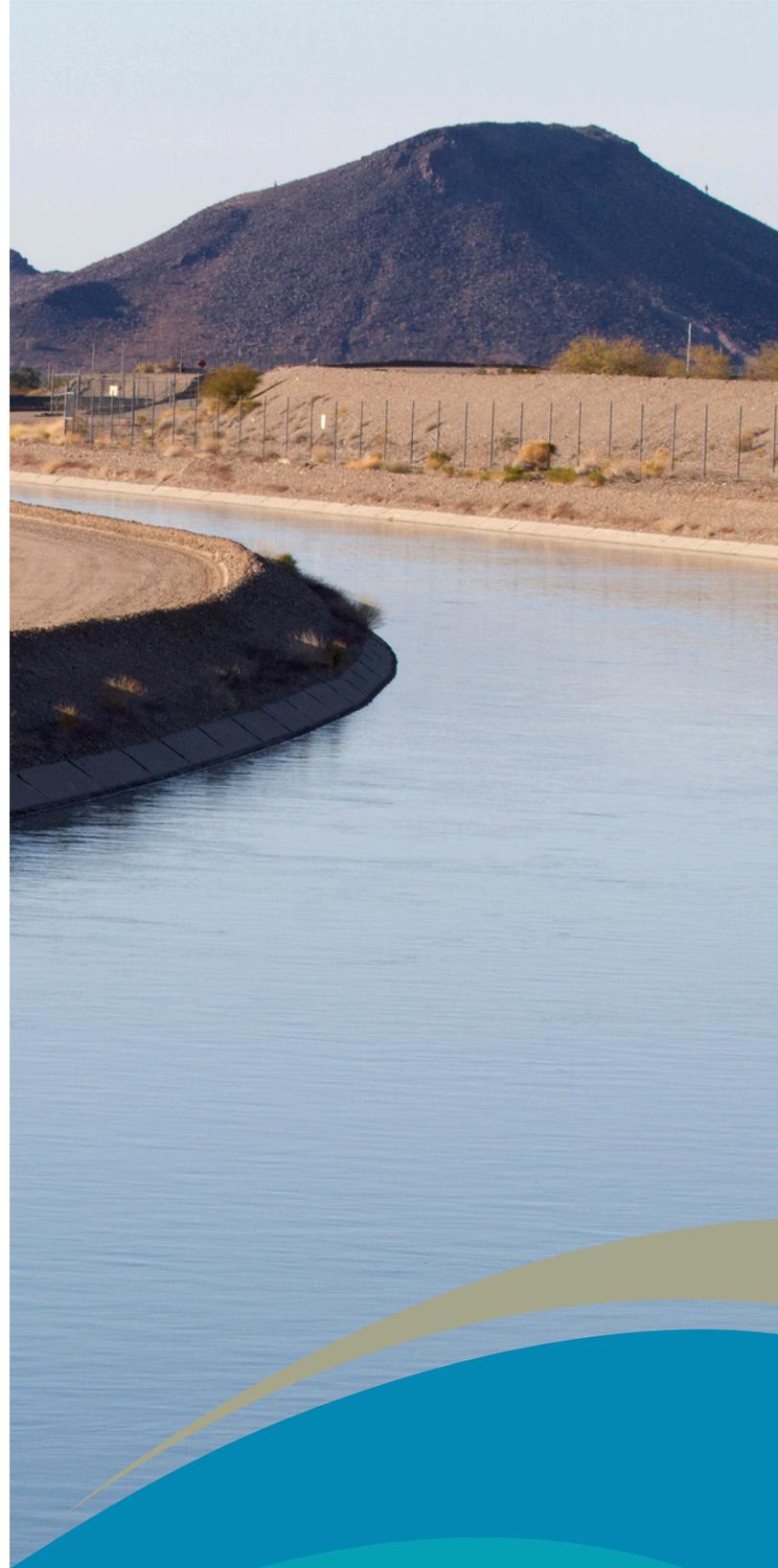
We dedicate ourselves to producing drinking water that meets or exceeds state and federal standards. We continually strive to adopt new and better methods to deliver you the best quality drinking water. As regulations and drinking water standards change, we are committed to incorporating these changes expeditiously and cost-effectively.

# What is a Water Quality Report?

A Water Quality Report, also known as a Consumer Confidence Report (CCR) or Drinking Water Quality Report, provides essential information about the quality of your drinking water. The United States Environmental Protection Agency (U.S. EPA) requires every community water supplier to provide a CCR to its customers. Each community water system must prepare and distribute an annual water quality report that summarizes information about the source water, detected contaminants, compliance, and educational material.

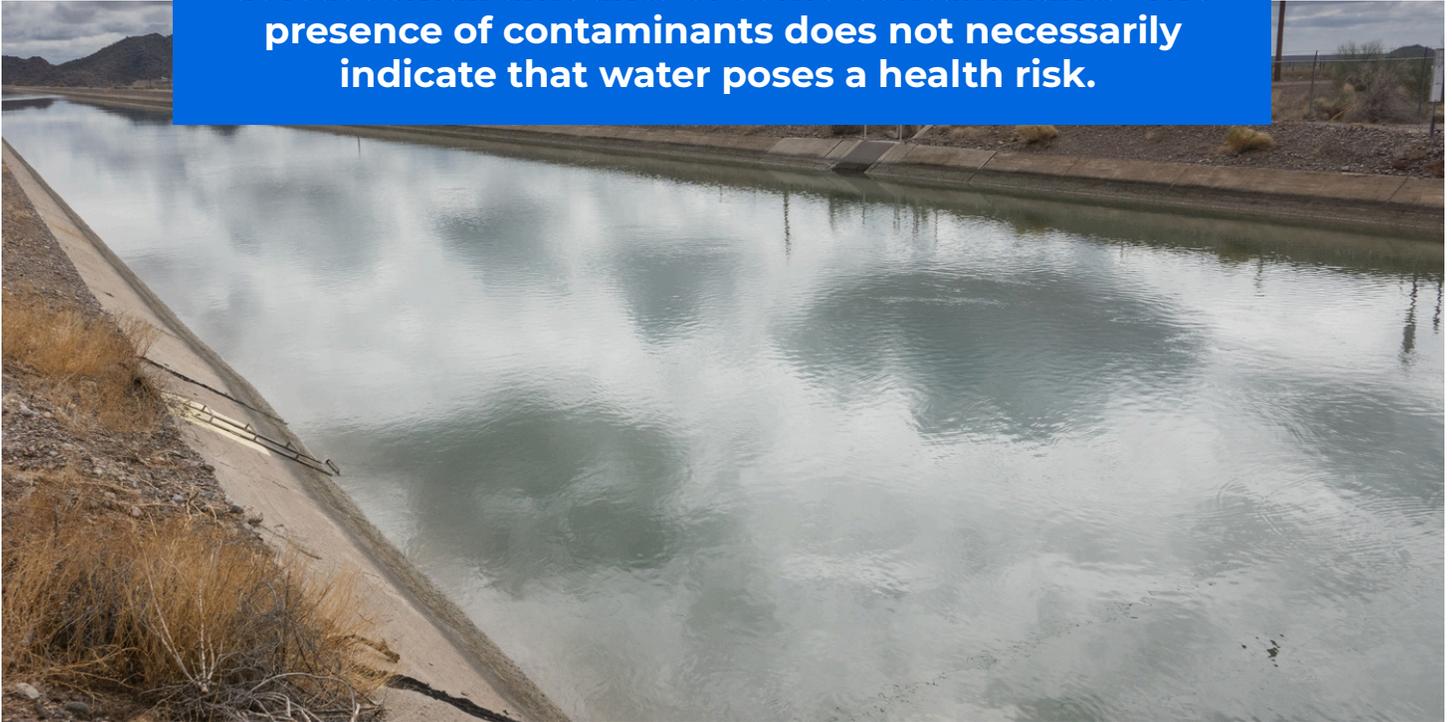
It's important to note that not all water quality reports are the same; they are often tailored to address the unique characteristics and concerns of each community's water system.

The information in this report can help you understand how your drinking water may affect your health. For example, your water source may contain contaminants. Some contaminants, like arsenic, occur naturally. It's important to understand that not all contaminants are harmful. Some substances classified as "contaminants" may actually improve water quality, such as the proper amount of disinfectant. Disinfectants, such as chlorine, are listed as contaminants even though they protect your health by eliminating harmful waterborne germs. The presence of these disinfectants in your water ensures your safety and security.



# Sources of Drinking Water

Drinking water, including bottled water, may contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.



The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the land's surface or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. It can pick up substances resulting from the presence of animals or human activity. Drinking water, including bottled water, may contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Contaminants that may be present in source water:

**Microbial Contaminants:** These include viruses and bacteria, which may come from septic systems, sewage treatment plants, agricultural livestock operations, or wildlife.

**Inorganic Contaminants,** such as salts and metals, 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:** These may come from various sources, such as agriculture, urban stormwater runoff, and residential uses.

**Organic Chemical Contaminants:** These include synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production. They may also come from gas stations, urban stormwater runoff, and septic systems.

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

# Is My Drinking Water Safe

You can learn more about contaminants and the potential health effects they may cause by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

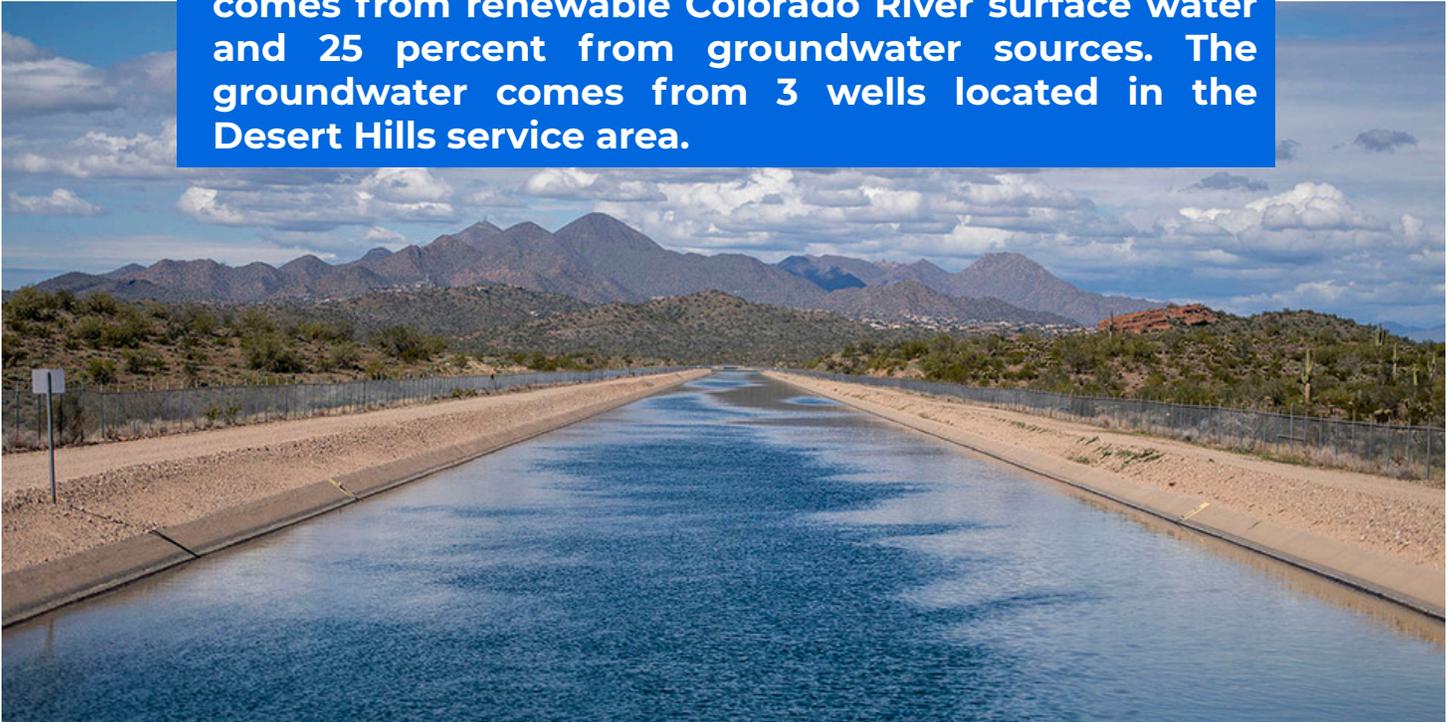


To ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Some people may be more vulnerable to contaminants in drinking water than the general population. Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of issues are not necessarily causes for health concerns. 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 healthcare providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbial contaminants are available from the Safe Drinking Water Hotline (800) 426-4791.

# Where Does My Water Come From?

## Central Arizona Project

Approximately 75 percent of the total water supply comes from renewable Colorado River surface water and 25 percent from groundwater sources. The groundwater comes from 3 wells located in the Desert Hills service area.



The raw Colorado River water is transported through the Central Arizona Project (CAP) Canal which is Arizona's single largest resource for renewable water supplies. The Town has a 16-inch raw water pipeline that extends over 12 miles from the CAP Canal north to the Town's water treatment plant through a series of four in-line booster stations.

### Source Water Assessment Program

In 2002, the Arizona Department of Environmental Quality (ADEQ) completed a source water assessment on the three groundwater wells used by the Desert Hills Water System. The assessment looked at potential risks to our groundwater sources. The assessment concluded that based on the information currently available on the hydrogeological settings of the adjacent land uses, that the Arizona Department of Environmental Quality has given us a low-risk designation for the degree to which these public water systems drinking water sources are protected. A designation of low risk indicates that most source water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures will have little impact on protection. Additionally, residents can help protect the groundwater supplies by properly recycling household and automotive chemicals and limiting pesticides and fertilizer use. For more information, please call our Customer Service Center at (480) 488-6620 or visit the Source Water Assessment and Protection Unit website at [www.azdeq.gov/source-water-protection](http://www.azdeq.gov/source-water-protection).

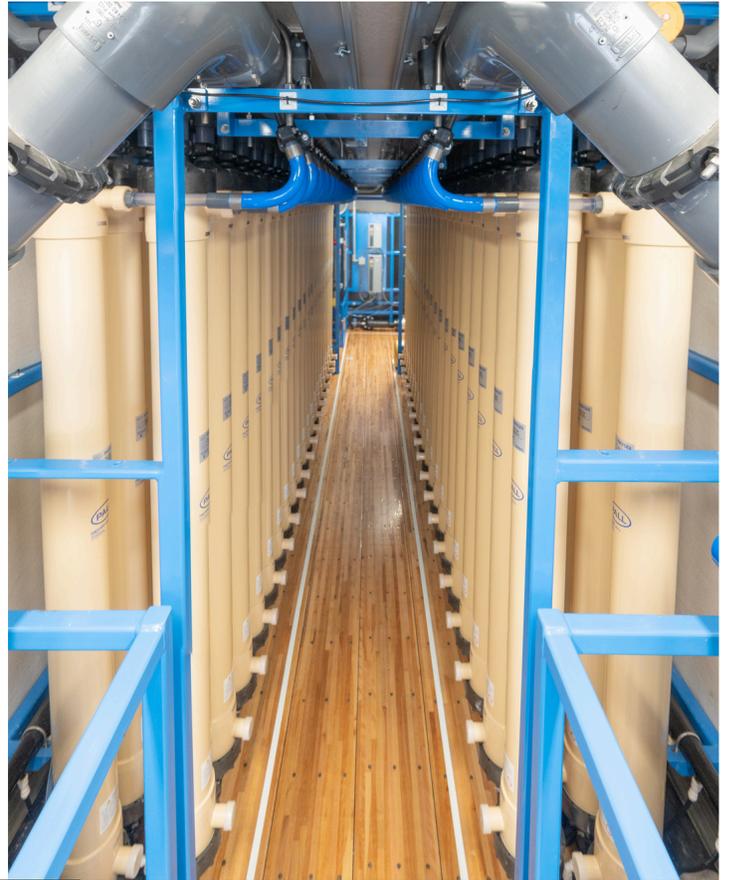


Well at Joy Ranch

# How is My Water Treated?

## Water Treatment Plant

The Cave Creek Water Treatment Plant uses conventional water treatment processes, which include coagulation, sedimentation, filtration, and disinfection, to produce safe drinking water. The raw water is treated to remove turbidity, ensuring clarity, and its chemistry is adjusted to prevent damage to pipelines. Disinfection is performed to protect public health. The treated water is then distributed to customers through a network of underground water mains, which range in size from 2 to 16 inches in diameter. These mains are supported by booster pumps, water storage tanks, and control valves. size from 2 to 16 inches in diameter. These mains are buried underground and supplied by booster pumps, water storage tanks, and control valves.



**In November 2019, two new state-of-the-art membrane treatment units were added to the plant to enhance overall water quality. In the fall of 2020, the Town purchased the membrane units to make them a permanent part of the water treatment system.**

## Our Commitment to You

Our Town staff work hard to bring you safe and reliable drinking water every time you pour a glass. Our stewardship begins with a focus on water quality and customer satisfaction. We continually strive to improve our services by fostering new ideas in sustainable technologies and practices to make our operations more efficient.

We dedicate ourselves to producing drinking water that meets or exceeds state and federal standards. As regulations and drinking water standards change, we are committed to incorporating these changes expeditiously and cost-effectively.

# Definitions of Terms Used in this Report

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

**gr/g:** Grain per gallon

**Likely Source of Contamination:** Notes where the substance usually originates

**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

**Million Fibers per Liter (MFL):** Measure of the presence of asbestos fibers that are longer than 10 micrometers

**Minimum Reporting Limit (MRL):** The smallest measured concentration of a substance that can be reliably measured by a given analytical method

**Not Applicable (N/A):** 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 (ug/L)

**ppt:** Parts per trillion or Nanograms per liter (ng/L)

**ppq:** Parts per quadrillion or Picograms per liter (pg/L)

**Picocuries per Liter (pCi/L):** Measure of the radioactivity in water

**Running Annual Average (RAA):** The average of sample analytical results for samples taken at a particular monitoring location during the previous 4 calendar quarters

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

## WHAT'S IN MY WATER?

We have compiled a list of test results showing substances detected in our drinking water during 2024 or the last sampling period. If you have any questions about this report or your drinking water, please call the Town of Cave Creek at (480) 488-6620.

## WATER QUALITY RESULTS

The Town of Cave Creek conducts extensive monitoring on your drinking water according to federal and state laws. The State of Arizona requires us to monitor certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination.

## UNREGULATED CONTAMINANTS MONITORING RULE (UCMR5)

The Safe Drinking Water Act (SDWA) requires that once every 5 years the EPA issue a list of unregulated contaminants to be monitored by public water systems. Unregulated substances are measured, but maximum contaminant levels have not been established by the government.

UCMR 5 (the fifth Unregulated Contaminant Monitoring Rule) sampling will be monitoring PFAs and Lithium. Desert Hills Water conducted sampling in 2023. The sampling cycle will begin for Cave Creek Water in 2025.

## HOW TO READ TEST RESULT TABLES

Example: Microbiological (RTCR) Table Starting with a Substance, read across. A "N" in the violation column indicates that compliance was achieved. Number of Positive Samples represents the number of samples with a detection. MCL shows the highest level of substance (contaminant) allowed in the drinking water. MCLG is the goal level for that substance (this is usually lower than the standard). Year Sampled is usually in 2024 or prior. Likely Source of Contamination tells where the substance usually originates.

# Test Results

The Town of Cave Creek Utilities Department follows all state and federal guidelines for water sampling schedules. Here, we show only those substances detected in our water. Full analytical results are available upon request. Please note that detecting a substance does not mean drinking water is unsafe. The data presented in this report are from the most recent testing conducted by regulations.

Microbiological (RTCR)	Violation (Y or N)	Number of Positive Samples	MCL	MCLG	Sample Year	Likely Source of Contamination
Total Coliform (Present/Absent) Desert Hills Water	N	0	Greater than 1 (Monthly)	0	2024	Naturally present in the environment
Total Coliform (Present/Absent) Cave Creek Water	N	0	Greater than 1 (Monthly)	0	2024	Naturally present in the environment
E. Coli (Present/Absent) Desert Hills Water	N	0	0	0	2024	Human and animal fecal waste
E. Coli (Present/Absent) Cave Creek Water	N	0	0	0	2024	Human and animal fecal waste

**Total Coliform detected in greater than five percent of the samples collected each month requires an assessment to investigate its source. During the past year, the Town was not required to conduct any assessments on our water systems because all sampling criteria were met, and no Total Coliform or E.coli was found to be present in the distribution system.**

**Total Coliform** are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. If coliform is found, then the system is responsible to look for potential problems in water treatment or distribution. When this occurs, the water system is required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

**E. Coli** are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. If E.coli bacteria is found, the water system is required to look for potential problems in water treatment or distribution. When this occurs, the system is required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

Surface Water Treatment Rule	Violation (Y or N)	Highest Level Detected	Range of All Samples (Low - High)	TT	Sample Year	Likely Source of Contamination
Total Organic Carbon (ppm) Cave Creek Water	N	3.51	2.53 - 3.51	1.0 or greater RAA (Compliance Factor)	2024	Naturally present in the environment
Turbidity (NTU) Cave Creek Water	N	0.170	0.030 - 0.170	TT = 1; and 95% less than 0.3 NTU	2024	Solid runoff

**Total Organic Carbon (TOC)** has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THM) and haloacetic acids (HAA). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver, or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

**Turbidity** is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. We monitor it because it is a good indicator of the quality of water. High turbidity can hinder the effectiveness of disinfectants. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Disinfectants	Violation (Y or N)	RAA	Range of All Samples (Low - High)	MRDL	MRDLG	Sample Year	Likely Source of Contamination
Chlorine Residual (ppm) Desert Hills Water	N	1.3	1.2 - 1.3	4	4	2024	Water additive used to control microbes
Chlorine Residual (ppm) Cave Creek Water	N	1.28	0.32 - 1.99	4	4	2024	Water additive used to control microbes
Disinfection By-Products	Violation (Y or N)	RAA Or Highest Level Detected	Range of All Samples (Low - High)	MCL	MRDLG	Sample Year	Likely Source of Contamination
Haloacetic Acids [HAA5] (ppb) Desert Hills Water	N	19	15 - 23.5	60	N/A	2024	Byproduct of drinking water disinfection
Haloacetic Acids [HAA5] (ppb) Cave Creek Water	N	21	11.6 - 35.9	60	N/A	2024	Byproduct of drinking water disinfection
Total Trihalomethanes [TTHM] (ppb) Desert Hills Water	N	66	54 - 91.8	80	N/A	2024	Byproduct of drinking water disinfection
Total Trihalomethanes [TTHM] (ppb) Cave Creek Water	N	62	40.3 - 90.8	80	N/A	2024	Byproduct of drinking water disinfection

Radionuclides	Violation (Y or N)	RAA Or Highest Level Detected	Range of All Samples (Low - High)	MCL	MCLG	Sample Year	Likely Source of Contamination
Gross Alpha Excluding Radon & Uranium (pCi/L) Desert Hills Water	N	1.79	1.79 - 1.79	15	0	2024	Erosion of natural deposits
Combined Radium 226/228 (pCi/L) Desert Hills Water	N	0.521	0.521 - 0.521	5	0	2024	Erosion of natural deposits
Gross Alpha Excluding Radon & Uranium (pCi/L) Cave Creek Water	N	3.2	3.2 - 3.2	15	0	2021	Erosion of natural deposits



Drinking water for the Desert Hills Water System begins its journey deep underground in aquifers. Groundwater is withdrawn from the aquifers by three wells and pumped into steel water storage tanks, disinfected to protect public health and to meet [EPA Drinking Water Standards](#), and then delivered to our customers. The Desert Hills Water System is solely dependent on a declining groundwater supply and has no alternative water sources. To maintain service to existing customers, the Cave Creek Water System supplements the water supply to the Desert Hills area with the Town's treated CAP water, which is transferred through an interconnect.

Lead & Copper	Violation (Y or N)	90th Percentile	Number of Sites Above AL	AL	MCLG	Sample Year	Likely Source of Contamination
Copper (ppm) Desert Hills Water	N	0.20	0 of 20	90% of taps must not exceed 1.3	1.3	2023	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm) Cave Creek Water	N	0.45	0 of 20	90% of taps must not exceed 1.3	1.3	2024	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) Desert Hills Water	N	ND	0 of 20	90% of taps must not exceed 0.015	0	2023	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) Cave Creek Water	N	0.005	1 of 20	90% of taps must not exceed 0.015	0	2024	Corrosion of household plumbing systems; erosion of natural deposits

**Lead** 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. The Town of Cave Creek is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. To address lead in drinking water, public water systems were required to develop and maintain an inventory of service line materials by Oct 16, 2024. Developing an inventory and identifying the location of lead service lines (LSL) is the first step for beginning LSL replacement and protecting public health. Please contact us if you would like more information about the inventory or any lead sampling that has been done. If you are concerned about lead in your water and wish to have your water tested, contact Town of Cave Creek at 480-488-6620. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

## Town of Cave Creek Lead Service Line Inventory Program

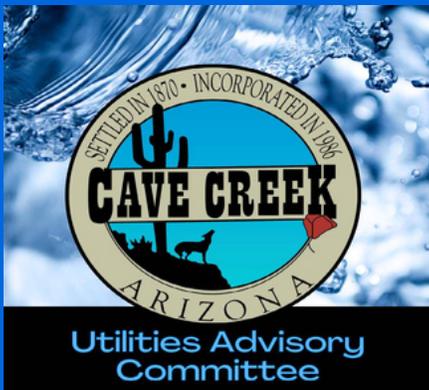
Lead water service lines can be a key source of lead in tap water. In 2021, EPA revised the Lead and Copper Rule to improve public health protection by reducing exposure to lead in drinking water. The Town's Utility Department has been evaluating service lines within our drinking water service areas to determine where any contain lead. In 2024 the Town submitted its initial inventory to the State of Arizona using an online portal called 120Water. Early results suggest that none or few of the lines contain lead. Any customers found to have lead service lines, galvanized requiring replacement, or lead status unknown will be notified by the Town at least annually.



Inorganic Chemicals (IOC)	Violation (Y or N)	RAA Or Highest Level Detected	Range of All Samples (Low - High)	MCL	MCLG	Sample Year	Likely Source of Contamination
<b>Arsenic (ppb)</b> Desert Hills Water	N	7	6.8 - 7.3	10	0	2024	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
<b>Barium (ppb)</b> Desert Hills Water	N	0.078	0.012 - 0.078	2	2	2024	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
<b>Chromium (ppb)</b> Desert Hills Water	N	11	3.1 - 11	100	100	2024	Discharge from steel and pulp <u>mills</u> ; erosion of natural deposits
<b>Fluoride (ppb)</b> Desert Hills Water	N	0.42	0.34 - 0.42	4	4	2024	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Nitrate (ppm)</b> [Measured as Nitrogen] Desert Hills Water	N	3	2.1 - 2.8	10	10	2024	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Nitrate (ppm)</b> [Measured as Nitrogen] Cave Creek Water	N	0.31	0.31 - 0.31	10	10	2024	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Sodium (ppm)</b> Desert Hills Water	N	33	33 - 33	N/A	N/A	2024	Erosion of natural deposits
<b>Sodium (ppm)</b> Cave Creek Water	N	110	110 - 110	N/A	N/A	2024	Erosion of natural deposits

**Arsenic** is a mineral known to cause cancer in humans at high concentration and is linked to other health effects, such as skin damage and circulatory problems. If arsenic is less than or equal to the MCL, your drinking water meets EPA's standards. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water and continues to research the health effects of low levels of arsenic.

**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, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.



The Town of Cave Creek has a Utilities Advisory Committee made up of water utility customers from the Desert Hills and Cave Creek water service areas and acts as an advisory body to the Town Council. In consultation with town staff, the advisory committee provides recommendations to the Town Council on utility issues as outlined in Ordinance No. O2023-07.

Currently there are five positions with terms ending December 31, 2026. Please email [townclerk@cavecreekaz.gov](mailto:townclerk@cavecreekaz.gov) if you are interested in joining the committee.

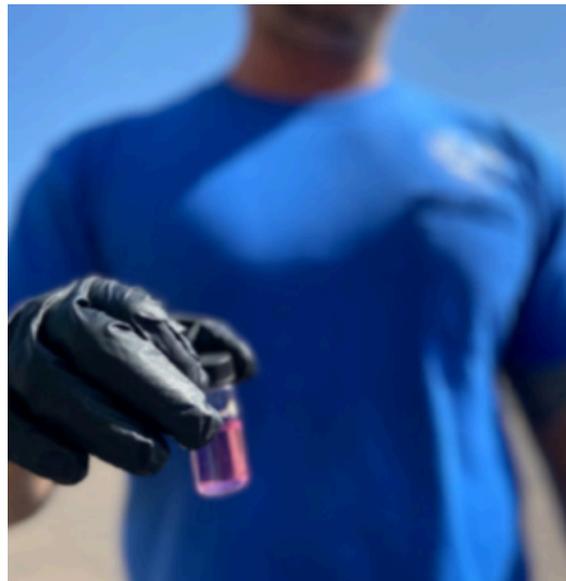
# Unregulated Contaminants Monitoring Rule UCMR 5

Unregulated contaminants are constituents for which the EPA has not established drinking water standards. The EPA issues a new list of up to 30 unregulated substances for monitoring every five years. During this five-year Unregulated Contaminants Monitoring Rule, also known as UCMR 5, the EPA has identified 29 polyfluoroalkyl substances (PFAS) and one metal (lithium) for monitoring.

From February 2023 through November 2023 the Town has been monitoring for unregulated substances PFAS and lithium in the Desert Hills Water System. Any PFAS and lithium detected during this monitoring period are reported in the following table. Results for unregulated contaminants do not indicate current compliance or noncompliance. The monitoring data will help the EPA make determinations about future regulations and other actions to protect public health.

UCMR 5 Substance	Highest Level Detected	Range of All Samples (Low - High)	Average	MCL	Sample Year	Likely Source of Contamination
Lithium (ppb) Desert Hills Water	46.5	19.9 - 46.5	36.4	None	2023	Naturally occurring metal that may concentrate in brine waters; lithium salts are used as pharmaceuticals, used in electrochemical cells, batteries, and in organic syntheses
Polyfluoroalkyl Substances [PFAS] (ppb) Desert Hills Water	ND	ND	ND	None	2023	PFAS are a group of synthetic chemicals used in a wide range of consumer products and industrial applications including non-stick cookware, water-repellent clothing, stain-resistant fabrics and carpets, cosmetics, firefighting foams, electroplating, and products that resist grease, water, and oil

From January 2025 to October 2025, the Cave Creek Water System will monitor for unregulated substances such as PFAS and lithium. Any PFAS and lithium detected during this monitoring period will be reported in the 2025 CCR. Results for unregulated contaminants do not indicate current compliance or noncompliance. The monitoring data will help the EPA determine future regulations and other actions to protect public health.



**Extensive monitoring ensures that your water meets water quality standards. The Town routinely monitors for contaminants in your drinking water according to Federal and State laws.**

**The State of Arizona requires the Town to monitor for specific contaminants less than once per year because the concentrations of these contaminants vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. The variability of testing explains why some of our data, though representative, may be more than one year old.**

# Future Water Supply and Conservation

Up to 70% of residential water use occurs outdoors. The easiest way to save water is to reduce your outdoor use.



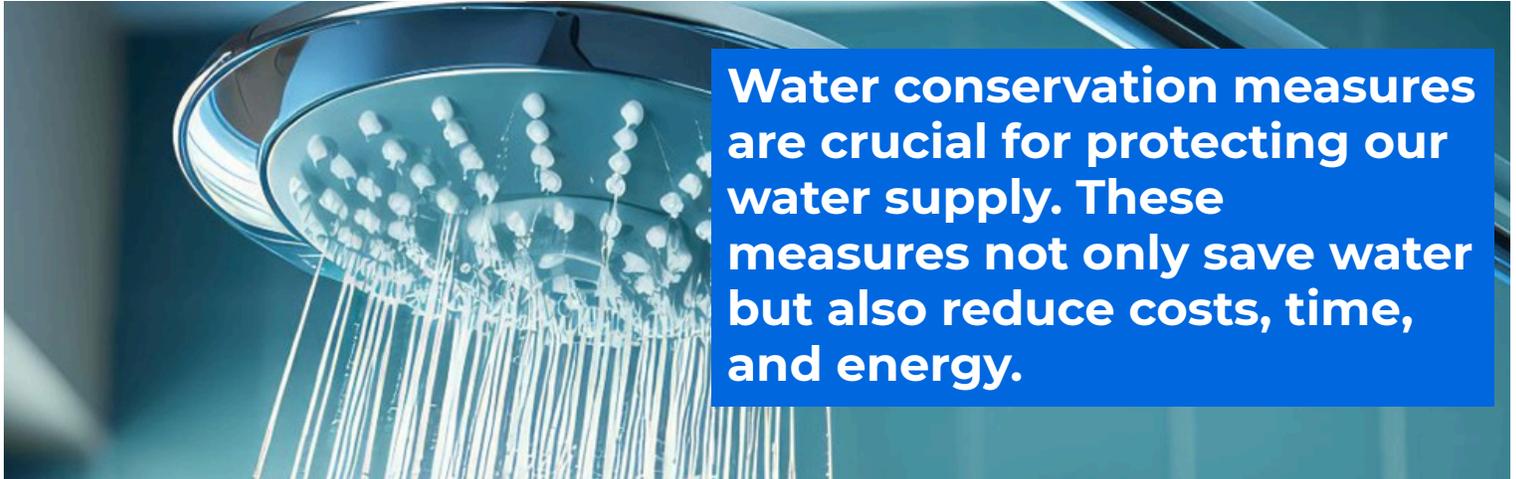
## OUTDOOR WATER SAVING TIPS

- Check for leaks in your irrigation system, pool/fountain equipment auto-fill devices, and hose bibs by conducting a water efficiency check.
- Free efficiency checks are at [www.smarthomewatguide.org](http://www.smarthomewatguide.org).
- Use a broom! Don't use water to clean sidewalks, driveways, or patios.
- Use water from a bucket to wash your car and save the hose for rinsing. Instead of washing your car at home, please take it to a car wash that recycles water.
- Fix leaks in hose bibs, irrigation components, and hoses.
- Refer to native Arizona landscaping species and techniques for attractive and drought-friendly foliage. Perhaps a xeriscape garden is best for you. See [www.amwua.org/plants](http://www.amwua.org/plants)
- Water plants early in the morning or the evening to reduce evaporation.
- Grass removal: Consider alternatives such as desertscape and artificial turf.
- Adjust your irrigation controller to match the weather. Skip an irrigation watering cycle each time it rains 0.5 inches or more.
- Regularly check your irrigation controller.
- Follow seasonal watering guidelines. See [www.cavecreekaz.gov/Water-Conservation](http://www.cavecreekaz.gov/Water-Conservation)
- Fertilizers promote plant growth and increase water consumption. Use them sparingly.
- Trees and shrubs have different watering needs. Put them on separate valves.
- Remove invasive species and weeds regularly to prevent them from consuming water.
- Hire a Smartscape-trained landscape professional to design, install, and maintain your landscape with water in mind. Find a pro at [Smartscape.org](http://Smartscape.org).

### POOLS

- Check for leaks.
- Use a pool cover to help keep your pool clean, reduce chemical use and prevent water loss through evaporation.
- Backwash only when needed, and just long enough for the water to run clear.

# Future Water Supply and Conservation



**Water conservation measures are crucial for protecting our water supply. These measures not only save water but also reduce costs, time, and energy.**

## SAVE INDOORS AS WELL

- Conduce a home water efficiency check with the free guide at [www.smarthomewatguide.org](http://www.smarthomewatguide.org).
- Install water-saving aerators on all faucets
- Fix leaky faucets, pipes, toilets and other plumbing fixtures

### BATHROOM:

- Put a few drops of food coloring in your toilet tank. If it seeps into the bowl without flushing, there's a leak. Fix it and start saving gallons!
- Time your shower to keep it under five minutes and save up to 1,000 gallons per month
- Don't let the water run while lathering, shaving or brushing teeth
- While you wait for hot water, collect the running water and use it to water plants

### LAUNDRY ROOM:

- Wash only full loads of laundry, or adjust the water for proper load size
- Washing dark clothes in cold water saves water and energy, and helps your clothes retain color

### KITCHEN:

- Don't use running water to thaw food. For water efficiency and food safety, defrost food in the refrigerator
- Scrape dishes into the garbage and soak them rather than rinsing before washing
- Run the dishwasher only when full. Typically, this will use less water than hand-washing

For more helpful resources on detecting leaks, as well as indoor and outdoor water conservation tips and other useful ideas for your home, visit [wateruseitwisely.com](http://wateruseitwisely.com).

Source: Water – Use It Wisely, [wateruseitwisely.com](http://wateruseitwisely.com)



The Town offers water conservation resources on its website at [www.cavecreekaz.gov/Water-Conservation](http://www.cavecreekaz.gov/Water-Conservation).

# Water Shortages and Drought

The Town is committed to conserving, protecting, and improving water resources to guarantee safe and reliable water supplies. We have developed a Water Shortage and Drought Management Plan to outline specific actions we will take during periods of water supply shortages or drought.



The Town encourages customers to reduce water usage during shortages through education and voluntary measures, allowing you, the customer, to decide how to conserve. However, during significant water shortages, the Town must implement mandatory compliance measures. To avoid drastic actions—such as price increases, water shortage surcharges or severe restrictions on water use—it is crucial for customers to learn effective water management techniques. Developing better water conservation habits is essential for protecting our vital water supply in this desert community, as water is a precious natural resource fundamental to everyday life.



**To view the Drought Management Plan visit:**

[www.cavecreekaz.gov/DroughtManagement](http://www.cavecreekaz.gov/DroughtManagement)

**To view the Water Resource Policy visit:**

[www.cavecreekaz.gov/Water-Policy](http://www.cavecreekaz.gov/Water-Policy)

# Future Water Supply and Conservation

The Town is taking shortage preparedness steps to mitigate and proactively address short-term and long-term changes in the water supply deliveries to best meet the serious challenges to maintain the health, safety, and economic wellbeing of the community.



**Verde Reservoirs Sediment Mitigation Project:** In 2024, the Town joined the new Verde Reservoirs Sediment Mitigation Project. In partnership with the Salt River Project (SRP) and 22 municipal, tribal, and agricultural partners working with the Bureau of Reclamation, the Town is participating in a feasibility study to evaluate how to raise and expand the Bartlett and Horseshoe reservoirs, located on the Verde River. The new storage volume created by the dam expansions could provide the Town with a new surface water resource and a long-term solution to the future reductions in the Colorado River water supply.

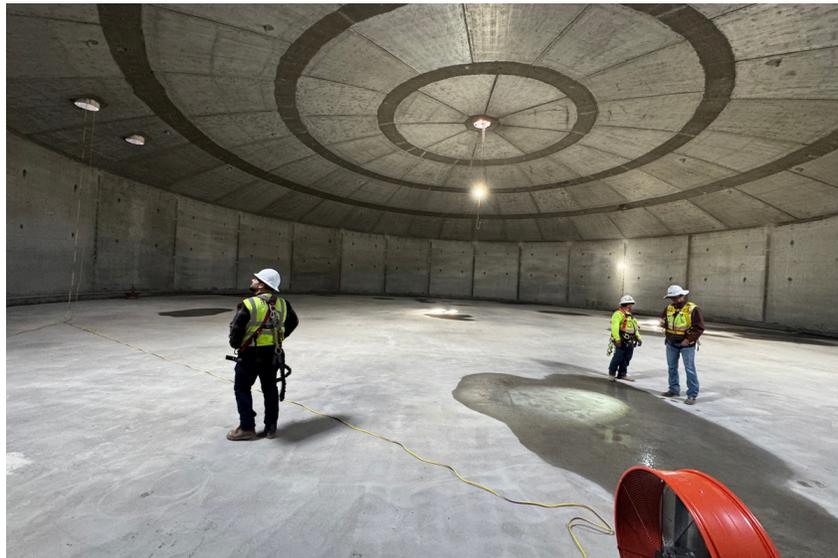
**Cave Creek Wells:** Starting in 2024, the Town began evaluating Town well sites to bring back online. Historically, the Cave Creek Water System received groundwater from 13 different wells. When surface water supplies from CAP became available, the Town reduced its reliance on groundwater. If an existing or new Town well site could come online, it would reintroduce a groundwater resource to the Town's water portfolio. It would provide some short-term relief during CAP water shortages or drought conditions.

**Water Recharge and Storage Credits:** Since 2021, The Town has been recharging/storing any unused CAP Municipal and Industrial (M&I) water allocation at CAP recharge facilities. The Town has already stored over 2,000 AF between the CAP's Hieroglyphics and Agua Fria recharge facilities. The IGA with the City of Phoenix also allows the Town to recharge and store water underground with Phoenix. By recharging with Phoenix, the Town may request the water to be withdrawn by a recharge/recovery well and delivered to the Town directly through the Town's new interconnect with Phoenix.

# Future Water Supply and Conservation



**Integrated Utility Master Plan:** In 2024, the Town adopted a new Integrated Utility Master Plan to become the planning framework for managing and improving the Town's water and wastewater systems. The Town desires to integrate and optimize its water resources, water, wastewater, and reclaimed water infrastructure for long-term system resiliency. The master plan provides a roadmap to guide the Town as it continues to focus on accommodating growth in undeveloped areas while continuing to provide reliable utility services to existing customers.



**Phoenix Interconnect Project:** The Town is currently constructing a new water interconnect site in collaboration with the City of Phoenix. This facility will allow the delivery of up to 1.4 million gallons of treated Central Arizona Project (CAP) water per day, which is approximately half of the Utility Department's peak daily demand. In 2019, the Town signed an Intergovernmental Agreement (IGA) with the City of Phoenix, permitting Phoenix to treat and deliver a portion of the Town's CAP water allocation. The project includes a new one-million-gallon storage and booster facility located at the southwest corner of Cave Creek Road and El Sendero Drive. The project is expected to be completed in the latter half of 2026. Once finished, it will provide the Town with a second source of treated CAP water, enhancing the system's reliability and redundancy for improved delivery capabilities.

# Our Water Partnerships

## Advanced Metering Technology (AMI)

The Town has partnered with Neptune Technology Group to install new advanced metering technology (AMI). This innovative technology securely transmits encrypted water usage data wirelessly to Neptune 360, a cloud-based data management platform. An AMI network provides accurate customer water metering data faster than ever before to quickly identify potential leaks, excessive consumption, and reverse flow. With Neptune 360, the Town can respond to customers faster, and proactively identify and resolve issues quickly with software designed specifically for the needs of water utilities.



**Coming in 2025!**

## Neptune My360 Consumer Portal

View and  
manage  
your water  
usage 24/7!



This new secure online portal puts water management directly in the hands of our customers. The new My360 portal is easy-to-use and gives customers the ability to create usage alerts, set a water budget, and view their own hourly consumption data 24/7. Users can set water thresholds and out-of-town alerts (text and/or email) for greater peace of mind. And water conservation is made simple when customers can see how much they actually use with easy-to-read charts and graphs. Users no longer have to wait for a monthly utility bill to detect possible issues, which means less water lost and fewer high bills.

My 360 is web-based to work on all internet enabled devices. Registration is free. **It is anticipated to have this service available for all Town water customers in the second half of 2025.**

For more information on My360, please visit [www.neptunetg.com/My360](http://www.neptunetg.com/My360).

# Our Water Partnerships

## BSI Online, Backflow Solutions, Inc.



The Town is committed to protecting its water consumers from backflow contamination. That is why the Town has partnered with BSI Online, Backflow Solutions, Inc. to manage its comprehensive backflow prevention program. BSI is the nation's most recognized backflow data management firm.

Backflow prevention is important as it protects our drinking water supply from pollutant hazards and other contaminants that could infiltrate the public water system from private properties through backflow. That is why all required backflow prevention assemblies must be tested at least annually by a licensed and certified backflow tester.

**A full list of authorized testing companies that provide testing and backflow installation can be found on the Town's Backflow Program web page [www.cavecreekaz.gov/Backflow-Prevention-Program](http://www.cavecreekaz.gov/Backflow-Prevention-Program)**



**Water customers with backflow prevention assemblies are required to have an annual backflow inspection and test by an approved testing company for continued municipal water services. For more information on the Backflow Program requirements, contact the Town of Cave Creek's Utility Assistant & Compliance Coordinator at (480) 488-6619.**

# Frequently Asked Questions

## Why does my water pressure seem high (or low)?

Water pressures will vary significantly from one area of the system to another. Here are some factors that may affect your home's water pressure:

- Elevation of your home or business to the water meter
- Water outages or leaks
- A home water treatment system that needs maintenance
- A malfunctioning shut-off valve
- A pressure regulating valve (PRV) that needs adjustment or replacement



All water customers are required to have and maintain a **pressure-reducing valve (PRV)**. These valves are essential as they regulate water pressure, preventing damage to pipes, fixtures, and appliances, while also helping to conserve water and energy. By lowering high water pressure, PRVs can extend the lifespan of plumbing components, reduce water waste, and lower water bills. Additional information on PRV's can be found at [www.cavecreekaz.gov/Save-on-Your-Water-Bill](http://www.cavecreekaz.gov/Save-on-Your-Water-Bill)

## Why does my water appear milky or cloudy?

The most common reason your tap water is cloudy is tiny air bubbles. These bubbles are harmless and not a health concern, and they will not damage your plumbing or appliances.

## Why does my water smell like rotten eggs?

If your water smells like rotten eggs, musty, or sulfur, this is often caused by bacteria growing in areas such as the sink drain, floor drain, garbage disposal, or water heater. These bacteria thrive when water faucets haven't been used for a while, hot water hasn't been turned on, or if the water heater thermostat is set too low.

## Why is my water discolored?

Discolored or dirty water can be caused by several factors, including older galvanized pipes, plumbing issues, or problems with a water softener. It may also result from recent activities in your neighborhood, such as construction work, water line repairs, or the flushing of fire hydrants. To diagnose the issue, fill a clean bucket from an outdoor faucet that is closest to your water meter or from the main faucet where the water enters your home. Run the water from the spigot into the bucket until it is full and repeat this process two or three times. If the water in the bucket is clear, the problem is likely localized to your home or business. In that case, it is advisable to contact a plumber to inspect your plumbing and pipes.

## How to know about water outage notices or utility alerts?

Visit [www.cavecreekaz.gov](http://www.cavecreekaz.gov) for any posted utility notices about your location. They will be in the News & Announcements section and/or a Utility Alert across the top of the page. You may also follow us on social media (Facebook and Twitter) for notifications.

**CodeRed** is an emergency telephone notification service that, when activated, will dial subscribers with a recorded message describing the nature of the emergency or utility outage, actions the Town is taking to alleviate the emergency, and recommendations for measures citizens can take to ensure their safety during an emergency. For more information and to sign up, visit - [www.cavecreekaz.gov/CodeRed](http://www.cavecreekaz.gov/CodeRed)

# Desert Hills Water System Facts

- The Town of Cave Creek operates the Desert Hills Water System which supplies drinking water to portions of unincorporated Maricopa County.
- As of December 2024, there were 1,820 active metered connections to the Desert Hills Water System.
- Groundwater is currently accessible through three water supply wells which account for roughly 27% (221.6 acre-feet or 72,208,582 gallons) of the total available water to meet current system demand.
- The Town of Cave Creek purchased 386 acre-feet or 125,778,486 gallons of Central Arizona Project (CAP) Non-Indian Agriculture (NIA) water in 2021 to supplement the water supply in the Desert Hills Water System. In 2024, a CAP Tier 1 water shortage on the Colorado River Basin reduced the Town's order amount by 25%, the equivalent of 290 acre-feet or 94,496,790 gallons.
- The Town of Cave Creek transferred over 816 acre-feet or 265,894,416 gallons of treated CAP water to the Desert Hills Water System in 2024.
- For every inch of rainfall on 1,000 square-feet of roof, 600 gallons of water can be collected through rainwater harvesting.

For more information on how to be involved in water quality opportunities, contact the Town of Cave Creek's Utility Assistant & Compliance Coordinator at (480) 488-6619.



The **Central Arizona Project (CAP)** is a 336-mile system that brings water from the Colorado River to Maricopa, Pima, and Pinal counties and serves more than 80% of the state's population. Nearly 456 billion gallons (1.4 million acre-feet) of water is lifted approximately 3,000 feet in elevation throughout the system.

Learn more about CAP and its importance to Arizona at [www.cap-az.com](http://www.cap-az.com).

# Water Conservation Resources

Water conservation starts with YOU as an essential component of the Utility Department's water resource management strategy. Our goal is to reduce water use while balancing a healthy, sustainable quality of life for our customers. Practicing a low-water-use lifestyle is one way that we can all help stretch our limited water supplies while saving time and money.

Arizona Department of Water Resources - <https://www.azwater.gov/>

Bureau of Reclamation - <https://www.usbr.gov/waterconservation/>

Central Arizona Project - <https://www.cap-az.com/>

Earth 911 Water Pollution and Conservation - <https://earth911.com/>

How to Save Water in Your House - <https://www.h2ouse.org/>

Landscape Plants of the Arizona Desert - <https://www.amwua.org/plants>

Monthly Gardening Guide - <https://extension.arizona.edu/programs/>

Smart Home Water Guide - <https://smarthomewaterguide.org/>

Smartscape Landscape - <https://smartscape.org/>

Tap into Quality - <https://www.azwater.org/group/tapintoquality>

Water: Use it Wisely® - <https://wateruseitwisely.com/>



## SEASONAL LANDSCAPE WATERING GUIDELINES

How Much & How Often Water to the outer edge of the plants canopy and to the depth indicated. Watering frequency will vary depending on season, plant type, weather and soil.		Seasonal Frequency – Days Between Watering				Water This Deeply (Typical Root Depth)
		Spring Mar – May	Summer May – Oct	Fall Oct – Dec	Winter Dec – Mar	
Trees	Desert Adapted	14-30 days	7-21 days	14-30 days	30-60 days	24-36 inches
	High Water Use	7-12 days	7-10 days	7-12 days	14-30 days	24-36 inches
Shrubs	Desert Adapted	14-30 days	7-21 days	14-30 days	30-45 days	18-24 inches
	High Water Use	7-10 days	5-7 days	7-10 days	10-14 days	18-24 inches
Groundcovers	Desert Adapted	14-30 days	7-21 days	14-30 days	21-45 days	8-12 inches
	High Water Use	7-10 days	2-5 days	7-10 days	10-14 days	8-12 inches
Cacti & Succulents		21-45 days	14-30 days	21-45 days	If needed	8-12 inches
Annuals		3-7 days	2-5 days	3-7 days	5-10 days	8-12 inches
Warm Season Grass		4-14 days	3-6 days	6-21 days	15-30 days	6-10 inches
Cool Season Grass		3-7 days	None	3-10 days	7-14 days	6-10 inches

These guidelines are for established plants (1 year for shrubs, 3 years for trees). Additional water is needed for new plantings or unusually hot or dry weather. Less water is needed during cool or rainy weather. Drip run times are typically 2 hours or more for each watering.



**Nick Larssen**  
Deputy Utilities Director



**Shawn Kreuzwiesner**  
Utilities Director



**Ryan Hill**  
Utility Assistant &  
Compliance Coordinator



**Andy Espinoza**  
Water Distribution  
Supervisor



**Chris Gunderson**  
Water Treatment  
Supervisor



**Greg Fish**  
Wastewater Treatment &  
Collections Supervisor



**Water Management Team**  
**Cave Creek Utilities Department**  
**480-488-6620**  
**[www.cavecreekaz.gov](http://www.cavecreekaz.gov)**