

# 2022 ANNUAL Water Quality Report

## MAIN SYSTEM

AZ0410112



CITY OF  
**TUCSON**



TUCSON  
WATER

# Director's Office Message



Tucson Water's story is a 4,000-year tradition of responsible desert dwelling in the Sonoran Desert. Providing fresh, responsibly sourced, quality water has been the vision and commitment of Tucson's Mayor and City Council and City staff over many decades. For more than 100 years, Tucson's growth has required a more responsive water system to deliver reliable, quality water to customers.

Since then, Tucson has become one of the largest communities in North America entirely on a groundwater system. Tucson Water proudly serves over 240,000 households and businesses in the Tucson metropolitan area with water primarily sourced from the Colorado River. It is delivered via the Central Arizona Project. Tucson Water recharges this water into local aquifers, which act as a natural filter before the water is pumped out through wells and served to customers.

We monitor water quality at hundreds of locations across our system—from our wells to your homes and businesses—and conduct tens of thousands of water quality tests every year. We go far beyond what is required by federal and state regulations. This is our commitment to providing safe, clean water here in our desert home.

Today, we are preparing for the next century through our One Water 2100 master planning process, and we invite you to learn more and get involved at <https://www.OneWaterTucson.com>. Our water quality relies on robust capital improvement projects that invests in infrastructure reliability and other pressing challenges surrounding water resources and water quality sustainability.

Our employees take pride in serving the Tucson community and ensuring that high-quality drinking water is delivered directly to you daily. We will continue to be the responsible stewards of Tucson's water future and guide our community toward being responsible Sonoran Desert dwellers.

John P. Kmiec, MPA  
Director

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## Contact Information

**Water Quality / Pressure Concerns**  
520-791-5945  
Mon. to Fri., 8 a.m. to 4:30 p.m.  
Email us about Water Quality or Pressure Concerns:  
[CustomerSupportUnit@tucsonaz.gov](mailto:CustomerSupportUnit@tucsonaz.gov)

**Public Information Office**  
520-791-2666  
[TWInfo@tucsonaz.gov](mailto:TWInfo@tucsonaz.gov)

### Other Contacts:

**24 Hour Emergency Line**  
(i.e., broken water main)  
520-791-4133

**Customer Service & Billing**  
520-791-3242 or 800-598-9499

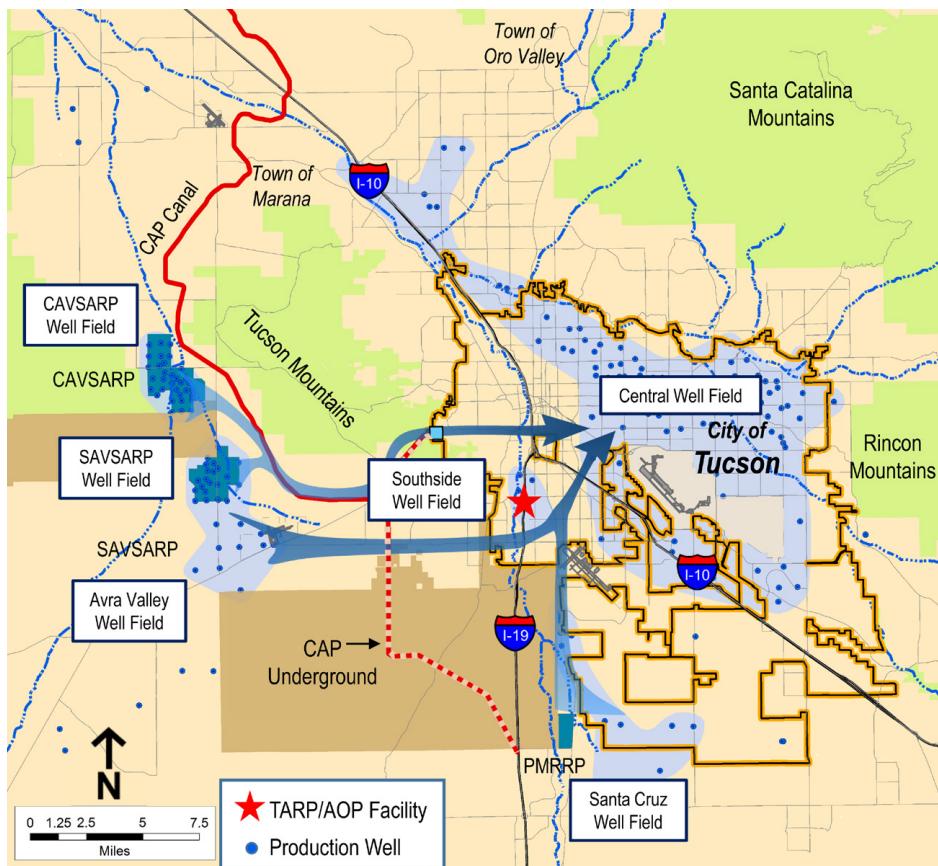
# Where Does My Water Come From?

**Tucson Water serves over 240,000 households and businesses within the main system service area.**

Historically, Tucson Water has relied on groundwater to meet potable demand. Starting in 2001, Tucson Water began transitioning from groundwater reliance to a renewable supply from the Colorado River. The majority of this water is delivered via the Central Arizona Project Canal to three recharge and recovery facilities:

1. Central Avra Valley Storage and Recovery Project (CAVSARP), which went into operation in 2001.
2. Pima Mine Road Recharge Project (PMRRP – jointly owned by the City of Tucson and the Central Arizona Water Conservation District), which went into full-scale operation in 2001.
3. Southern Avra Valley Storage and Recovery Project (SAVSARP), which began operation in 2008.

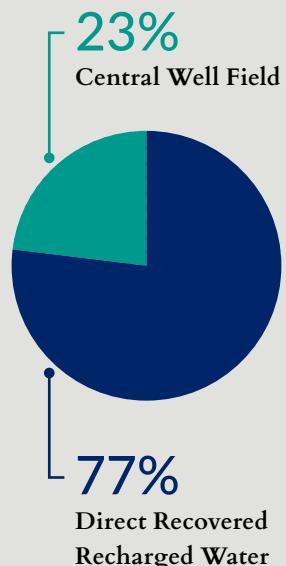
The recharged Colorado River water is then recovered through wells and delivered to customers. Tucson Water also operates and maintains its Central Well Field that was the community's historical water supply. Today, it serves customers during peak demands, is used as a backup of other renewable supplies, and is our long-term "savings account" for future drinking water.



## What Is Direct Recovered Recharged Water?

*Direct Recovered Recharged Water* is the process of purposefully recharging (or banking) surface water in the aquifer and storing it for times when the surface water supply may be low. CAVSARP, PMRRP, and SAVSARP are constructed recharge facilities.

## Annually, Tucson Water Delivers Approximately:



## TUCSON ONE WATER

Careful management of our water resources is critical to Tucson's long-term sustainability. One Water 2100 Master Plan is a new approach for managing water resources for long-term resilience and sustainability, meeting both community and ecosystem needs. One Water will guide the utility in how to best manage its water resources under ever changing conditions. This approach treats all of Tucson's water resources as equally important: surface water, groundwater, recycled water, and rain and stormwater harvesting.

### Get Involved!

Public participation is essential to ensuring communities and stakeholders have a say in how our water resources are managed. To provide feedback or subscribe to receive One Water news and updates, or for a list of One Water events and engagement opportunities, visit <https://www.tucsononewater.com/get-involved>.



# Protection Starts at the Source

## *How We Treat Your Drinking Water*

### CHLORINE DISINFECTION

Chlorine disinfectants are added to drinking water to kill harmful pathogens. It's quite effective because a "residual" amount of chlorine remains after the initial application that continues to protect against bacteria and other microorganisms. Chlorine residual disinfection is maintained throughout the distribution system. Approximately 1 part per million (equivalent of about a cup of water in a swimming pool) of chlorine is added to the drinking water supply at well sites, reservoirs, and other facilities to keep drinking water free of microbiological contamination. Tucson's water meets microbiological drinking water standards from the time it is recovered from the ground and treated until it reaches the customer's tap.

**CHLORINE  
DISINFECTANTS  
ARE ADDED TO  
DRINKING WATER  
TO KILL HARMFUL  
PATHOGENS.**

Tucson Water continually measures chlorine residual disinfectant levels to ensure they do not exceed the maximum residual disinfectant limit. We use sampling stations located throughout the distribution system to collect 248 routine chlorine samples a month, and we collect microbiological samples at the same time.



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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### WHAT'S IN YOUR WATER

Drinking water sources include rivers, lakes, streams, ponds, reservoirs, springs, and wells.

As water travels over the land surface or through the ground, it dissolves naturally occurring minerals, and in some cases, radioactive material, and can pick up substances resulting from animal presence or human activity. Different kinds of contaminants will appear in your drinking water, sometimes naturally, and in varying levels. Some contaminants are harmless, whereas others may be dangerous if consumed in large quantities. Our water quality specialists work continually to make sure the water we deliver to you is fresh, clean, and safe to use. We currently monitor for approximately 90 regulated and 103 unregulated contaminants.



### WHAT WE LOOK FOR

#### Contaminants that may be present in drinking water before we treat it:



**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**, from 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, 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 occur naturally or result from oil and gas production and mining activities.

## TESTING FOR PFAS

Per- and polyfluoroalkyl substances (PFAS) are synthetic chemicals used in a wide range of products, from fire fighting foam, to nonstick cookware, to waterproof clothing, to food packaging, to shampoo and more. PFAS are a contaminant of concern because they could potentially pose a risk to public health and because they do not degrade. In other words, if they reach the environment, they will be there forever and could affect groundwater and drinking water.

Annually, Tucson Water conducts hundreds of rigorous tests for PFAS across our system. Tucson Water has delivered and will continue to deliver water that exceeds the U.S. Environmental Protection Agency's (EPA's) health advisory level. In fact, we go above and beyond federal guidelines by also removing wells that have detectable amounts of PFOA or PFOS from service.

PFAS are found in specific areas within Tucson's groundwater. Tucson Water avoids pumping from these areas. PFAS have not been detected in Colorado River water, which provides most of Tucson's overall water supply.



The Arizona Department of Environmental Quality (ADEQ) is working with Tucson Water to eliminate the threat to our drinking water supply from PFAS. This includes plans to install new groundwater monitoring wells and design and construct preventative measures to stop PFAS-contaminated groundwater from migrating. New technologies and innovations are being used to remove PFAS from groundwater and limit its movement to other groundwater sources.

Visit <http://www.azdeq.gov/WQARF> for more information.



### Consecutive Connection Sources

A consecutive public water system (PWS) is one that receives some or all of its finished water from one or more wholesale systems via direct connection or through the distribution system of one or more consecutive systems. Systems that purchase water from another system report regulated contaminants detected from the source water supply separately.

**PWS AZ0410092 Marana-Picture Rocks** provides us with a consecutive connection source of water. The connection between Marana-Picture Rocks and Tucson Water can serve either system in an emergency. No water was exchanged in 2022.

## BACKFLOW PREVENTION

A cross-connection is a point in a plumbing system where the potable (drinking) water supply is connected to a non-potable source. Contamination may occur when water flows through a cross-connection from a non-potable source, such as a sprinkler system or heating and cooling unit, into the potable water system. This can happen through a process known as backflow.

Tucson Water's Backflow Prevention Program is designed to protect the public drinking water supply from pollutants and contaminants that could infiltrate the Tucson Water system from private properties through backflow.

All commercial and multifamily customers and some single-family customers are required to install backflow prevention assemblies on their Tucson Water service connections. These assemblies prevent non-potable water from being drawn into the public drinking water system and must be tested annually.

For more information: <https://www.tucsonaz.gov/water/backflow-prevention> or phone 520-791-2650.

# Going Above and Beyond

**Tucson Water does a lot more than merely complying with the minimum EPA standards.**

We performed extra monitoring to give staff and customers additional water quality information. Here's how we did it:

## UNREGULATED CONTAMINANT MONITORING RULE

Unregulated contaminants are those for which the EPA has not established drinking water standards. A compound's presence in water does not necessarily mean there is a health risk; its concentration is a far more important factor in determining whether there are health implications. Tucson Water carefully tracks the concentrations of these compounds and EPA health studies. We actively keep customers informed of any developments.



Tucson Water keeps your drinking water safe by regularly monitoring all drinking water sources. If any contamination approaches the maximum contamination level (including PFAS) at a drinking water source, we remove the source from service.

## MONITORING WAIVERS

ADEQ grants waivers for certain monitoring requirements based on the system's vulnerability to contamination. Tucson Water participates in a Synthetic Organic Chemicals (SOCs) waiver program that the ADEQ offers to public water systems, because no risk of contamination is present. Waivers save money by reducing the monitoring frequencies for these contaminants without affecting public safety.

In 2021, Tucson Water received SOC waivers in our main system. Most of our sources (wells) were eligible for SOC waivers.



## SENTRY PROGRAM

Tucson Water's Sentry Program is an additional, voluntary monitoring component of our routine water quality management strategy. The Sentry Program proactively identifies contaminants of emerging concern (such as PFAS, industrial chemicals, personal care products, pesticides, and pharmaceuticals) so they can be addressed early. Annual results are summarized on our website at <https://www.tucsonaz.gov/water/CEC>.

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**Contaminants of Emerging Concern**

Recent scientific research has indicated that exposure to contaminants of emerging concern (CECs, aka emerging contaminants) may pose risks to human health. Tucson Water established its "Sentry Program" in 2008. The program has detected trace levels of CECs in the drinking water system and Tucson Water has been tracking the annual sampling results to proactively identify and address potential CEC issues.

The Sentry Program is a proactive, voluntary monitoring component of the routine water quality management program. Final annual reports are summarized in the documents below.

- [Contaminants of Emerging Concern Sentry Program-2020 Results Summary](#)
- [Contaminants of Emerging Concern Sentry Program-2019 Results Summary](#)
- [Contaminants of Emerging Concern Sentry Program-2018 Results Summary](#)
- [Contaminants of Emerging Concern Sentry Program-2017 Results Summary](#)
- [Contaminants of Emerging Concern Sentry Program-2016 Results Summary](#)

## CONTINUOUS ONLINE MONITORING

Tucson Water tracks the quality of all of its water resources through a continuous online monitoring program. Testing occurs automatically, 24/7, at strategic locations throughout the distribution system. These tests are in addition to our manual collection and sampling operations. Test results and data are compiled and available from Tucson Water's website at: <https://www.tucsonaz.gov/water/about-your-water-quality>. The data include charts, tables, and maps of water quality information.

Every year, Tucson Water tests thousands of water samples collected from drinking water wells and permanent taps located throughout our water distribution system. Some tests are required by federal and state regulations (for example, the Safe Drinking Water Act or EPA standards), but we proactively perform hundreds of additional tests to confirm that only the cleanest and safest drinking water reaches your home.

### 24/7 Monitoring

- Chlorine residual
- Conductivity
- Total dissolved solids
- pH
- Temperature
- Nitrate
- Sodium
- Hardness



### Help protect our water sources

- Maintain your septic system
- Limit pesticide and fertilizer use
- Properly dispose of household hazardous waste
- Properly dispose of medications
- Volunteer in your community

Visit <https://www.tucsonaz.gov/es/household-hazardous-waste> or call 520-791-3171.



### About your system



**240,297**  
HOUSEHOLDS  
AND BUSINESSES



**155**  
POTABLE WELLS



**112**  
BOOSTERS



**4,503**  
TOTAL MILES  
OF PIPE



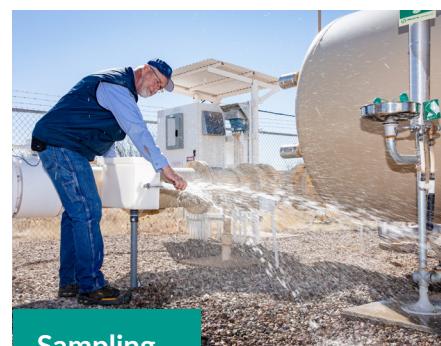
**146**  
TRANSFER VALVES



**248**  
WATER QUALITY  
SAMPLING POINTS



**46**  
STORAGE  
FACILITIES



### Sampling



**7,552**  
REQUIRED SAMPLES



**13,368**  
REQUIRED TESTS



**21,471**  
VOLUNTARY  
SAMPLES

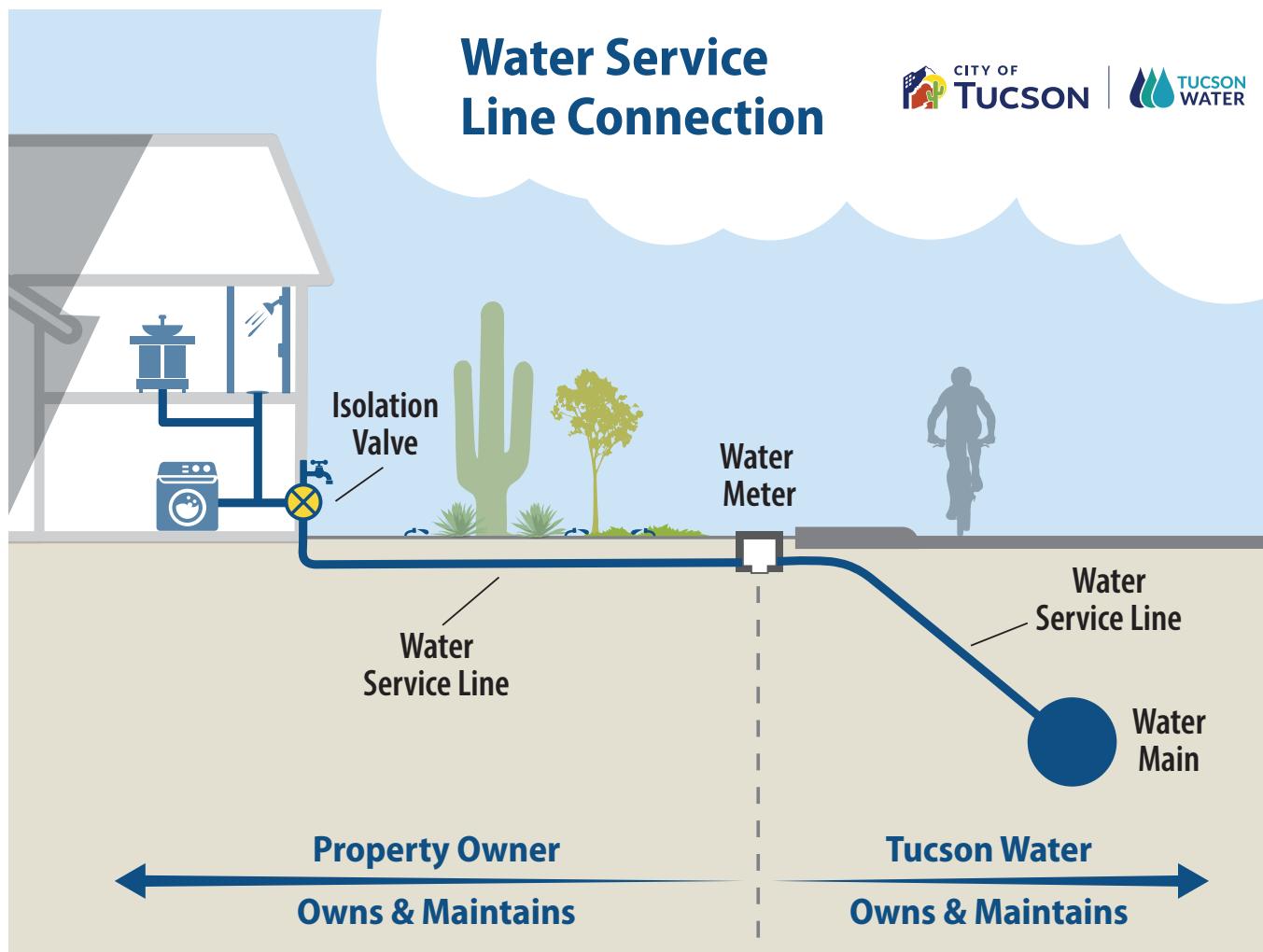


**66,392**  
VOLUNTARY TESTS

# Customer Zone

**Tucson Water is responsible for maintaining and replacing watermains throughout its service area, including service lines up to the water meter.**

Property owners are responsible for the service lines from the water meter to their service address or property. It is the homeowner's responsibility to maintain the water line and keep it in good repair.



## GET THE LEAD OUT PROGRAM

Lead water service lines are a key source of lead in tap water. Since 1999, Tucson Water has identified, located, removed, and replaced lead water service lines from its water system. In 2016, due to the water crisis in Flint, Michigan, Tucson Water proactively launched the “Get the Lead Out” (GTLO) program that identified, located, and removed 142 lead water service lines in the project area. Since 1999, 866 lead water service lines have been removed from the water system. Visit <https://www.tucsonaz.gov/water/lead-and-copper> for details.

Tucson Water has continued to expand the GTLO program: we are well-positioned to meet the revised lead and copper rule requirements and our own water quality management and public health goals. The expanded program will include community participation where we will work with customers and stakeholders to identify water service line material at homes and businesses. More information about the expanded GTLO program and how you can help identify the water service line at your home or business will be provided as the program unfolds.

## WHAT'S NEW WITH THE LEAD AND COPPER RULE?

In 2021, EPA revised the Lead and Copper Rule to improve public health protection by reducing exposure to lead and copper in drinking water. Tucson Water will be providing the following information to regulators to comply with the revised rule:

- Lead water service line inventory
- Lead and galvanized steel service line replacement plan
- List of childcare facilities and elementary schools within the water service area
- Updated compliance sampling plan
- Updated communications plan on the revised lead and copper rule



## ABOUT LEAD

Tucson Water follows EPA's Lead and Copper Rule, a regulatory requirement for public drinking water systems to protect customers and the public. We sample for lead and copper at over 100 locations on a regular basis throughout our water service area. Lead and copper monitoring is an important function of our water quality management program and our public health goals.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Tucson Water is responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. For a list of licensed labs in Arizona that can analyze your water for lead and copper, see the Arizona Department of Health Services Licensed Environmental Laboratories at <https://app.azdhs.gov/bfs/labs/elbis/drinkingswatertestinglabs/drinkingswatersearchcontentpage.aspx>. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline by calling 1-800-426-4791 or by visiting <http://www.epa.gov/safewater/lead>.

## Frequently Asked Questions

### **What is a water service line?**

A water service line is the pipe that delivers water from the watermain to your meter and the pipe that delivers water from your meter to the first outside water tap at your residence or business.

### **Who owns and maintains a water service line?**

The property owner owns and maintains the water service line from your water meter to the first outside tap at your home or business. Tucson Water owns and maintains the water service line from the watermain to your water meter.

### **What is a lead water service line?**

A lead water service line is a portion of pipe made of lead that connects the watermain to the water meter and the water meter to the home's or building's outside tap.

### **Do I have lead plumbing in my home or business?**

If your home or building was built after 1990, it is likely that the plumbing materials do not contain lead. Buildings built in 1945 or earlier pose the greatest risk of having lead-containing plumbing materials and lead water service lines.

# Your Water Quality

## Did you know?

The results are in! Our water quality specialists continuously monitor and test your drinking water to keep you and your family safe and healthy. Did you know you can check the test results for your own community with our easy-to-use Water Quality Map? Enter your address at <https://www.tucsonaz.gov/water/mywaterquality/> and view the results for your sample area. You can even compare the results against the maximum limits set out by the Environmental Protection Agency.

**OUR WATER QUALITY SPECIALISTS CONTINUOUSLY MONITOR AND TEST YOUR DRINKING WATER TO KEEP YOU AND YOUR FAMILY SAFE AND HEALTHY.**

## VULNERABLE POPULATIONS

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. Some people may be more vulnerable to contaminants in drinking water than the general population.

Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV-AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

For more information about contaminants and potential health effects, or to receive a copy of the EPA and the U.S. Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants, call the **EPA Safe Drinking Water Hotline at 1-800-426-4791**.



## Water quality statistics: It's all about quality

### SOURCE WATER ASSESSMENT PROGRAM

The ADEQ completes source water assessments for Tucson Water drinking water wells. The assessments review the adjacent land uses that may pose a potential risk to the water sources. It classified approximately one-third of the Tucson Water Main Public Water System wells as **High Risk**.

A **High Risk** designation means there may be additional source water protection measures that can be implemented at the local level. It does not mean that the source water is contaminated or that contamination is imminent; rather, land use activities or hydrogeological conditions exist that make the source water susceptible to possible future contamination.

ADEQ source water assessments are available for public review. Contact the Arizona Source Water Coordinators at 602-771-4597 or 602-771-4298 to request a copy.

#### Sources of Potential Risks:

- Gas stations
- Landfills
- Dry cleaners
- Agricultural fields
- Mining activities

### DETECTED CONTAMINANTS

Tucson Water routinely monitors for contaminants in your drinking water as specified in the National Primary Drinking Water Standards. Monitoring results for the period of January 1 to December 31, 2022, or from the most recent period, are included in the table. Certain contaminants are monitored less than once a 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.

Contaminant	MCL	MCLG	Units	Highest Sample Result	Range	Year	MCL Violation	Major Source of Contaminant (Y/N)
<b>Disinfection Byproducts</b>								
Haloacetic Acids (HAA5) <sup>a</sup>	60	N/A	ppb	1.2 LRAA	ND - 2.6	2022	N	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM) <sup>b</sup>	80	N/A	ppb	23 LRAA	1.6 - 41.9	2022	N	Byproduct of drinking water disinfection
<b>Inorganics</b>								
Arsenic	10	0	ppb	6.7	ND - 6.7	2022	N	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Barium	2	2	ppm	0.18	ND - 0.18	2022	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide	200	200	ppb	5	ND - 5.0	2022	N	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	4	4	ppm	0.88	0.14 - 0.88	2022	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	10	10	ppm	5.9	ND - 5.9	2022	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	50	50	ppb	2.4	ND - 2.4	2022	N	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	N/A	N/A	ppm	69	14 - 69	2022	N	Erosion of natural deposits

Contaminant	MCL	MCLG	Units	Highest Sample Result	Range	Year	MCL Violation (Y/N)	Major Source of Contaminant
<b>Synthetic Organics</b>								
Atrazine	3	3	ppb	0.1	ND - 0.1	2022	N	Runoff from herbicide used on row crops
Endothall	100	100	ppb	5.7	ND - 5.7	2022	N	Runoff from herbicide use
<b>Volatile Organics</b>								
Ethylbenzene	700	700	ppb	0.6	ND - 0.6	2022	N	Discharge from petroleum refineries
Toluene	1	1	ppm	0.002	ND - 0.002	2022	N	Discharge from petroleum refineries
Xylene	10	10	ppm	0.003	ND - 0.003	2022	N	Discharge from petroleum or chemical factories
<b>Radioactive Chemicals</b>								
Alpha Emitters	15	0	pCi/L	7.9	ND - 7.9	2022	N	Erosion of natural deposits
Combined Radium (-266 & -228)	5	0	pCi/L	0.9	ND - 0.9	2022	N	Erosion of natural deposits
Uranium	30	0	ppb	12	ND - 12	2022	N	Erosion of natural deposits
Contaminant	Action Level	MCLG	Units	No. of Samples above Action Level	90th Percentile Value	Year	MCL Violation (Y/N)	Major Source of Contaminant
Lead	15	0	ppb	0	0.9	2020	N	Corrosion of household plumbing systems; erosion of natural deposits
Copper	1.3	1.3	ppm	0	0.108	2020	N	Corrosion of household plumbing systems; erosion of natural deposits
Disinfectant	MRDL	MRDLG	Units	Annual Average	Monthly Average Range	Year	MCL Violation (Y/N)	Major Source of Contaminant
Chlorine	4	4	ppm	0.98	0.88 - 1.04	2022	N	Water additive used to control microbes
Microbiological (RTCR)	MCL	MCLG	Units	No. of Positive Samples	Year	TT Violation (Y/N)	Major Source of Contaminant	
Fecal Indicator <sup>c</sup> (GWR Source: coliphage, enterococci and/or E.coli)	0	0	N/A	1	2022	N	Human and animal fecal waste	

**Notes:**

- a) HAA5 MCLG: dichloroacetic acid (zero); trichloroacetic acid (0.02 ppm); monochloroacetic acid (0.07 ppm). Bromoacetic acid and dibromoacetic acid have no MCLGs.
- b) TTHM MCLG: bromodichloromethane (zero); bromoform (zero); dibromochloromethane (0.06 ppm); chloroform (0.07 ppm).
- c) E.Coli was detected at one groundwater rule source (GWR) well but was not detected in the distribution system. Although detected, it was not in violation of the E.Coli MCL. The well was immediately turned off, super-chlorinated, and re-tested. Follow-up sampling indicated no detectable concentrations of E.Coli.

**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 standards, which balance 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.

**Nitrate** in drinking water at levels above 10 ppm is a health risk for infants of less than 6 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 your health care provider for advice.

## WERE THERE ANY VIOLATIONS?

Tucson Water's system had no health-based MCL or missed monitoring violations. We're proud that your drinking water meets or exceeds all federal and state requirements. Our extensive monitoring and testing program have detected some constituents, but the EPA and ADEQ have determined that your water is SAFE at these levels.

Please share this information with other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

## DEFINITIONS

<b>Action Level:</b>	The concentration of a contaminant that, if exceeded, triggers treatment, or other requirements.
<b>LRAA:</b>	Locational Running Annual Average
<b>Maximum Contaminant Level (MCL):</b>	The highest level of a contaminant that is allowed in drinking water.
<b>Maximum Contaminant Level Goal (MCLG):</b>	The level of a contaminant in drinking water below which there is no known or expected risk to health.
<b>Maximum Residual Disinfectant Level (MRDL):</b>	The level of disinfectant added for water treatment that may not be exceeded at the consumer's tap.
<b>Maximum Residual Disinfectant Level Goal (MRDLG):</b>	The level of disinfectant added for treatment at which no known or anticipated adverse effect on health of persons would occur.
<b>Not Applicable (N/A):</b>	Sampling was not completed by regulation or was not required.
<b>Not Detected (ND or &lt;):</b>	Not detectable at reporting limit.
<b>Picocuries per liter (pCi/L):</b>	Measure of the radioactivity in water.
<b>ppb:</b>	Parts per billion, or micrograms per liter ( $\mu\text{g}/\text{L}$ ). Equal to adding ONE droplet of water to a backyard swimming pool.
<b>ppm:</b>	Parts per million, or milligrams per liter (mg/L). Equal to adding about a CUP of water to a backyard swimming pool.
<b>ppt:</b>	Parts per trillion, or nanograms per liter (ng/L). Equal to adding ONE droplet of water to 15 Olympic-sized swimming pools.
<b>Treatment Technique (TT):</b>	A required process intended to reduce the level of a contaminant in drinking water.

# Frequently Asked Questions

## HOW DO I KNOW MY WATER IS SAFE TO DRINK?

Tucson Water provides safe drinking water that complies with all federal, state, and local drinking water regulations. Our staff work together to monitor drinking water quality at 170 wells, 60 reservoirs, 271 sampling stations, and 125 selected homes across all of our systems.

## HOW IS TUCSON'S DRINKING WATER TREATED?

Tucson Water uses chlorination to disinfect against organisms, such as bacteria and viruses. We strive to maintain a chlorine residual between 0.80 mg/L to 1.2 mg/L throughout the distribution system.

## WHY IS MY WATER MILKY/CLOUDY?



Water with a cloudy or milky white appearance may be caused by millions of tiny air bubbles present in the water. They're harmless and not a health concern, and they will not damage your plumbing or appliances. Fill a clean, clear glass with water and let it stand for a few

minutes. As air escapes, the water will clear from the bottom of the glass up to the top. Note, a faucet aerator that requires cleaning or replacing can also cause milky water. Remove the aerator and soak it in vinegar or replace it.

## WHY DOES MY WATER PRESSURE SEEM LOW (OR HIGH)?

Water pressure can vary greatly from one area of the water system to another, even from house to house. Here are some factors that may affect your home's water pressure:

- Elevation of your home relative to the reservoir or booster station serving your area
- An area water outage
- A leak inside the Customer Zone
- A home water treatment system that needs maintenance

- A malfunctioning shut-off valve to the house
- A pressure regulating valve (PRV) that needs adjustment or replacement.

PRVs are required if your domestic water pressure exceeds 80 psi. PRVs are common in many homes and have been required by Pima County on all newly constructed homes since 2005.

## WHY DOES MY WATER SMELL LIKE ROTTEN EGGS?

Rotten egg, musty, or sewer smell is most commonly caused by bacteria growing in a sink drain or water heater. These bacteria may flourish because water faucets haven't been turned on, hot water hasn't been used or has been turned off for a while, or the water heater thermostat is set too low. Go to the sink where you believe the odor originates. Check cold water versus hot water. Fill a clean glass with cold water, step away from the sink, and smell the water. If there is no odor, the origin may be the sink's drain or garbage disposal.

## WHY IS MY WATER DISCOLORED?

Discolored or dirty water can be related to older, galvanized pipes, plumbing or a water softener in the Customer Zone or to recent activity in your neighborhood, such as construction, break repairs, or flushing fire hydrants. Visit <https://tucsonaz.gov/water/outages> for any notices about your location.

Get a white bucket and go to the outside faucet closest to your water meter or to the main faucet where water enters the house. Remove the garden hose if attached to the faucet. Run the water from the spigot into the bucket until the bucket is full. Repeat 2 or 3 times.

If bucket water is clear, the issue is most likely in the Customer Zone. Contact a plumber to inspect plumbing and pipes.

### Contact Us

To report water quality and pressure issues, please contact Water Quality/Pressure Concerns at 520-791-5945 Mon. - Fri., 8 a.m. - 4:30 p.m. or email [CustomerSupportUnit@tucsonaz.gov](mailto:CustomerSupportUnit@tucsonaz.gov).

# Conservation and Drought Planning

## Did You Know?

**Tucson Water delivers the same amount of water today that it supplied in 1985 despite a 20% increase in population.**

## TUCSON WATER CONSERVATION PROGRAM

For decades, Tucson Water has promoted water conservation, providing community education, resources, and rebates for our customers. Our efforts have paid off, with individual water use decreasing 30% as a result. Today, Tucson Water delivers the same amount of water we did in the late 1980s while serving over 200,000 more customers. The Conservation Program is currently funded by a conservation fee of 10 cents per one hundred cubic feet (ccf) (1 ccf = 748 gallons) assessed on all potable water sales and operates out of a separate fund within the Tucson Water Department. The fund was established in 2008 through the adoption of Ordinance 10555.

The Conservation Program offers a suite of conservation services and customer incentives, including low-income assistance, education programming for K12 students and landscape professionals, one-on-one water audits, community outreach, and conservation resources and tools.

Through these services, the Conservation Program has achieved the following:



**CONSERVED MORE THAN  
4.88 billion gallons**  
(14,985 acre-feet) of water



**INVESTED MORE THAN  
\$16 million**  
in rebates and incentives



**INSTALLED MORE THAN  
71,000 high-efficiency  
toilets and urinals,**  
including over 8,400 free toilets for  
low-income customers



**INSTALLED MORE THAN  
3,500 rainwater  
harvesting and gray  
water systems,**

including 300 subsidized systems  
for low-income customers



**ENGAGED WITH NEARLY  
600,000 students**  
and community members

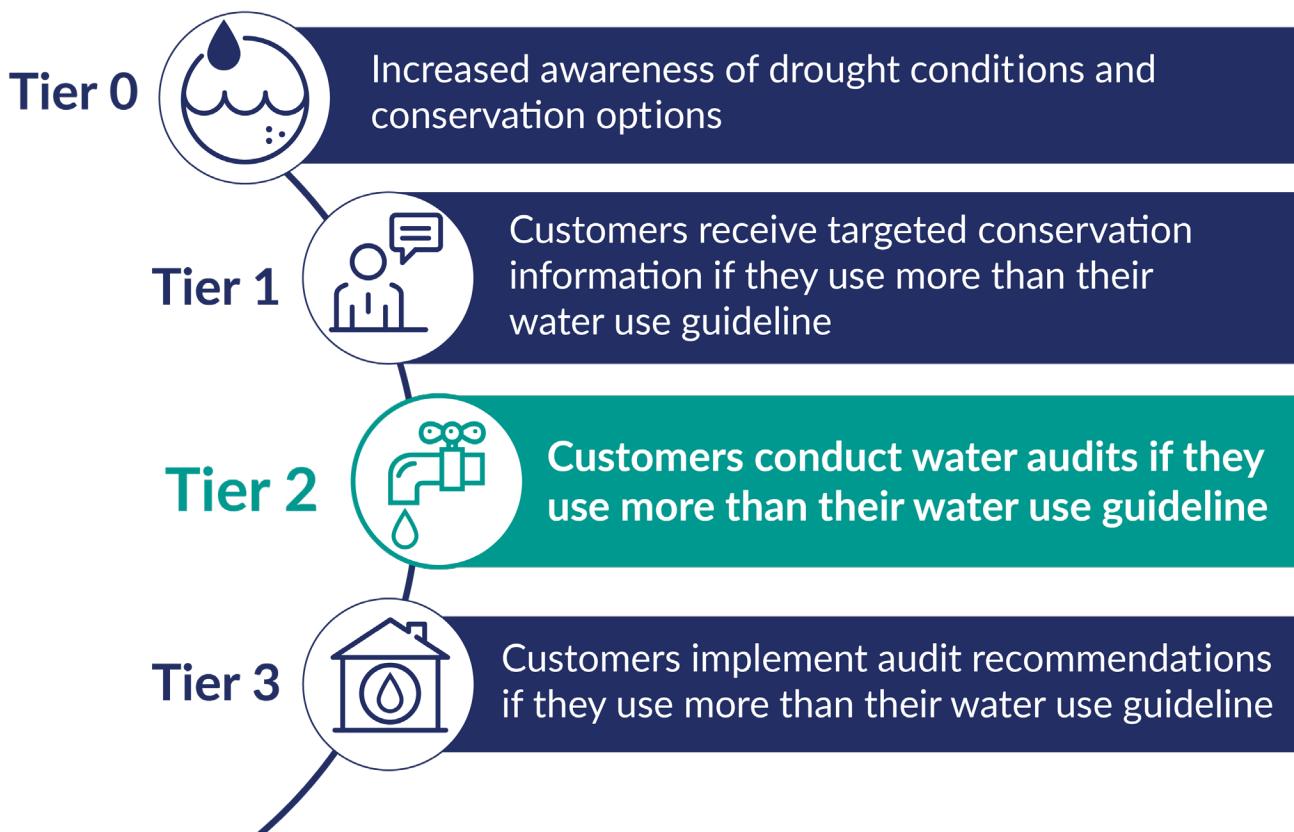


**CONDUCTED NEARLY  
10,000 water audits**  
over the last five years

## CONSERVATION AND DROUGHT

To prepare for ongoing drought within the Colorado River Basin, the City of Tucson updated its Drought Preparedness and Response Plan in 2020 to align with current Colorado River indicators. The City's drought plan tiers correspond directly to the shortage tiers on the Colorado River and will change in accordance with the Bureau of Reclamation's declaration for the upcoming year. Conservation staff are preparing tools and measures to respond to the current drought status, as well as future drought tiers. The infographic illustrates the conservation measures being developed for each stage of drought. In 2022, the City of Tucson had a Tier 1 drought status and moved to a Tier 2 drought status as of January 1, 2023. Tucson Water is working to empower customers with water use guidelines to determine how much water they use relative to other similar customers. In each progressive stage of drought, customers who exceed their water use guideline will be instructed to take additional measures to conserve water. Concurrently, the City is examining its own facilities to identify and implement efficiency opportunities.

Refer to <https://www.tucsonaz.gov/water/residential-and-commercial-conservation> and <https://www.tucsonaz.gov/water/drought-preparedness> for more information.





CITY OF  
**TUCSON**



**TUCSON**  
WATER



## Contact Us

<https://www.tucsonaz.gov/water>  
CustomerSupportUnit@tucsonaz.gov

Para nuestros clientes que habla Español: Este informe contiene información muy importante sobre la calidad de su agua. Tradúscalo o hable con alguien que lo entienda bien. Para obtener una copia de este informe en Español, llame al (520) 791-5945.

