



ANNUAL

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# WATER QUALITY REPORT

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2023



[AustinWater.org](http://AustinWater.org)    

Austin Water Public Water  
System ID: 2270001

# AUSTIN WATER'S COMMITMENT TO SAFE DRINKING WATER

Dear Austinites,

I am pleased to present this year's Water Quality Report, highlighting Austin Water's unwavering commitment to high quality drinking water.

At Austin Water, our top priority is the safety and quality of the water flowing from your taps. We strictly adhere to the standards set by the Environmental Protection Agency (EPA), which establish limits for various contaminants to safeguard public health.

I am proud that Austin Water has met or exceeded all requirements of the Texas Commission on Environmental Quality (TCEQ). This is a testament to our dedicated team's tireless efforts and meticulous attention to maintaining the integrity of our water supply.

In this year's report, you'll find comprehensive information about the quality of your drinking water, including details on how we consistently meet or surpass regulatory requirements. Our commitment to transparency means you have access to detailed insights into our water sources, treatment processes, and quality testing results.

Our proactive approach to quality control includes robust measures such as safeguarding vital infrastructure, conducting continuous sampling and testing at multiple points in our system, setting quality standards that exceed regulatory requirements, and implementing regular maintenance to protect the integrity of our infrastructure. Furthermore, our team is dedicated to initiatives like replacing aging water lines to reduce the risk of breaks and potential infiltration of contaminants.

For over a century, Austin Water has been at the forefront of providing exceptional service to our community. We understand the critical role we play in protecting public health. Our team of nearly 1,400 employees works around the clock every day to deliver high-quality drinking water that is not only safe but also reliable and affordable.

Thank you for placing your trust in Austin Water. Your support and partnership makes our work possible. We're proud to be an integral part of the greater Austin community.

Warm regards,

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**Shay Ralls Roalson, P.E.**  
Director of Austin Water

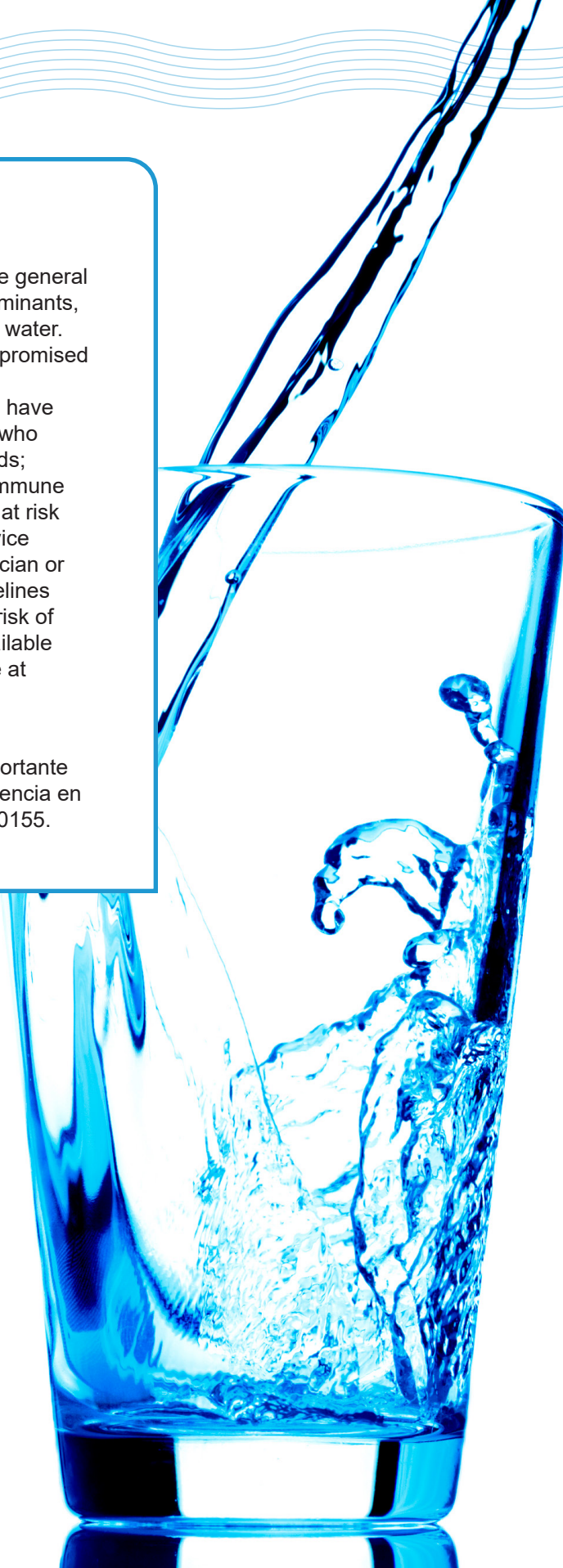


## Special Notice

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly or immunocompromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline at 800-426-4791.

### En español

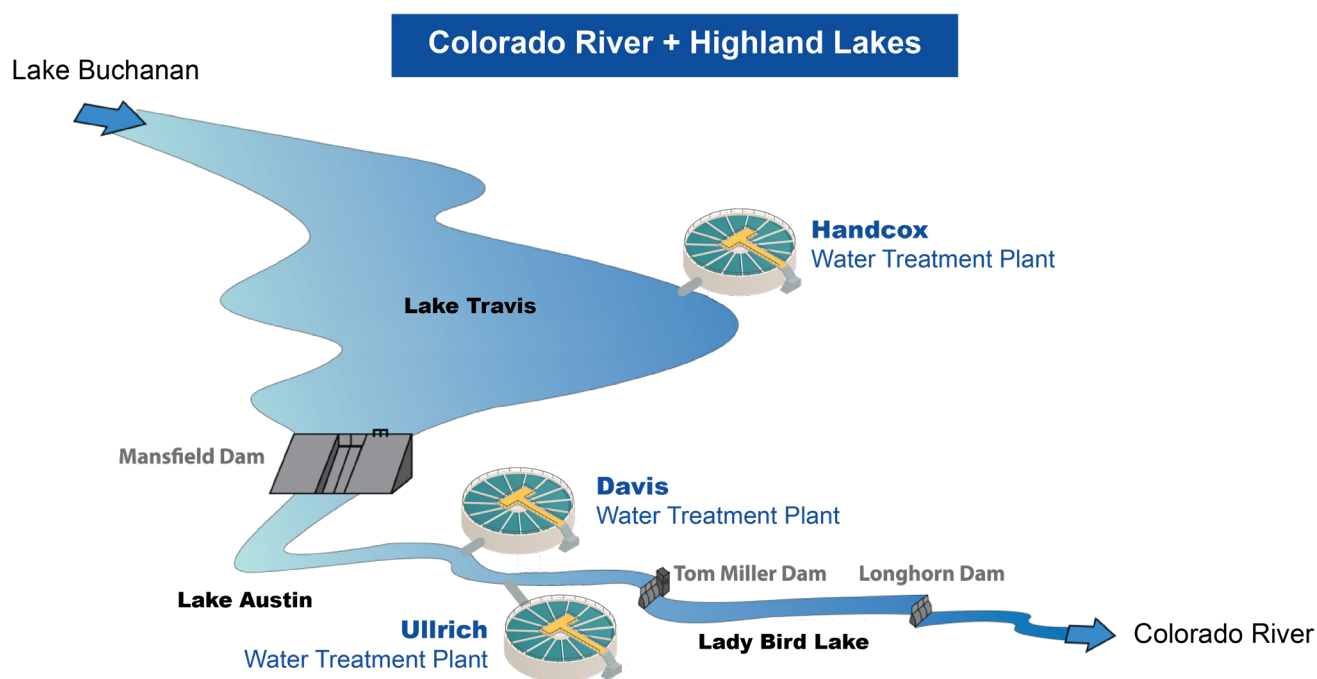
Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, por favor llame al 512-972-0155.



# ABOUT YOUR WATER

## Where Your Drinking Water Comes From

Austin Water draws surface water from the Lower Colorado River as it flows through Lake Travis and Lake Austin. The water is then treated at a higher standard than what federal and state law requires at three specialized water treatment plants.



## We Protect the Source

TCEQ completed an assessment of our source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for the water system are based on this susceptibility and previous sample data. Any detection of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts of our system, contact Austin Water's Water Quality Manager at 512-972-0012.

## What Is in Your Drinking Water

The sources of drinking water nationwide (both tap water 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 be polluted by animals or human activity.

Contaminants that may be present in the source water include:

- ◆ Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- ◆ Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- ◆ Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff and residential uses.
- ◆ Organic chemicals, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff and septic systems.
- ◆ Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit amounts of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Contaminants may be found in drinking water that may cause taste, color or odor problems. These types of problems are not necessarily a cause for health concerns. For concerns with taste, odor or color of drinking water, contact Austin Water at 512-972-0012.

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 800-426-4791.

**Our top priority is to ensure our water continues to be safe and satisfying to drink.**



## Continuous Sampling and Testing

Austin Water collects and tests samples at our treatment plants and across our water system multiple times a day, every day, for bacteria and chemicals that could pose a risk to our customers. Our top priority is to ensure our water continues to be safe and satisfying to drink.

We have taken steps to protect drinking water safety and quality that include:

### Protecting Vital Infrastructure

- ◆ A copper sulfate feed system was installed in 2020 to protect raw water piping against zebra mussels that can damage equipment and affect taste and odor in drinking water.
- ◆ Following the devastating impacts of Winter Storm Uri in 2021, Austin Water's infrastructure was repaired and winterized to be more resilient during future extreme freezing weather events.

### Treatment Reliability

- ◆ Austin Water sets treatment goals and quality standards that are beyond the minimum state and federal regulatory requirements to provide our customers superior water. TCEQ requirements call for 0.3 NTU or less in treated water or finished water clarity (turbidity), but Austin Water's goal is 0.1 NTU or lower – and we consistently achieve this standard on average month after month, year after year.
- ◆ Implementation of a polymer feed system began in 2020 to strengthen resiliency to flooding impacts and improve filter performance. This treatment capability is especially critical during events when high turbidity may occur in raw source from the lakes. Polymer systems are now fully operational across all three water treatment plants.
- ◆ Powdered activated carbon is added as part of the treatment process to minimize taste and odor issues so that drinking water tastes fresh.
- ◆ In addition to using on-line equipment that continuously monitors treatment performance in real-time, licensed plant operators conduct water testing at least every two hours during multiple phases of the treatment process every day. This testing includes checks on the levels of disinfectant (chlorine/chloramine) residual, turbidity, pH, alkalinity and water softening.



Copper sulfate feed system



Infrastructure winterization



Continuously monitored treatment performance

# Continuous Sampling and Testing

## Quality Control in Storage, Pressure and Pipes

- ◆ Water storage tanks are tested routinely for bacteriological contaminants to ensure water remains at the same high quality as the moment it left the treatment plant.
- ◆ Water quality instrumentation, which provides real time monitoring for Austin Water operators, is installed and maintained in every major pressure zone to ensure water quality throughout the distribution system.
- ◆ Proactive water line replacement is underway, strengthening water distribution networks in 60 subdivisions and consisting of more than 6,000 water lines. This work will reduce line breaks and minimize the risk of contaminant infiltration.



Hands-on monitoring of total chlorine levels

## Finished Drinking Water Testing

- ◆ For public safety, and to ensure Austin Water customers receive fresh water, annual maintenance is conducted on every fire hydrant in the city.
- ◆ In addition to daily testing at each water treatment plant, a minimum of 300 water samples are collected each month to test for bacteriological contaminants, total chlorine residual levels and other important parameters throughout the water distribution system.



Flushing at fire hydrants assists with the delivery of fresh water to customers

# MONITORING FOR HEALTH RISKS

## Cryptosporidium

*Cryptosporidium* is a parasite that can create an infection called gastroenteritis. Infection from *Cryptosporidium* organisms can occur in humans and animals and is spread by contact with soil, water, food or surfaces that have been contaminated. Austin Water monitors our lakes for *Cryptosporidium* because surface water sources are known to be susceptible to this contaminant.

During the 2023 monitoring for *Cryptosporidium*, Austin Water collected 20 samples. All samples reported no detection. The treatment processes employed at Austin Water's treatment plants are effective for removal of *Cryptosporidium*.

## Harmful Algal Blooms

Cyanobacteria, also called blue-green algae, are microscopic organisms found naturally in surface waters. These organisms use sunlight to make their own food. In warm, nutrient rich waters, cyanobacteria can multiply quickly, creating algal blooms that spread across the water's surface.

Some algae may produce cyanotoxins which can be harmful to humans and animals. Since 1992, Austin Water has monitored source water and drinking water for the presence of cyanobacteria. In 2015, Austin Water also began monitoring for the presence of cyanotoxins. We conduct routine testing for the presence of cyanotoxins in Lake Austin and Lake Travis, as well as in water that has finished the treatment process at the Handcox, Davis and Ullrich Treatment Plants. Testing for the presence of cyanobacteria and other microscopic algae in raw lake water is conducted at least weekly, and cyanotoxin testing is performed on a routine basis. Sampling frequency is adjusted based on changing conditions.

In addition, to protect public health and safety, Austin Water has invested in leading-edge technology to shorten the time it takes to receive test results. Employing digital imaging particle analysis and same-day testing, we are able to detect harmful algae quicker than before. We also meet regularly with our counterparts at the City of Austin's Watershed Protection Department and the Lower Colorado River Authority to review and report on our respective testing and mitigation approaches.

Austin Water performs several treatment techniques at our water plants to effectively and efficiently remove cyanobacteria and cyanotoxins. The harmful cells containing the toxins can be physically removed through the coagulation, flocculation, sedimentation and filtration process. Chlorine, which is part of the plant's disinfection process, is destructive to cyanotoxins. Finally, the powdered activated carbon that is used to remove taste and odor causing compounds also removes cyanotoxins.



# MONITORING FOR HEALTH RISKS

## Per- and Polyfluoroalkyl Substances (PFAS)

Per- and Polyfluoroalkyl Substances - or PFAS - are chemicals that are manufactured to enhance everyday products. These chemicals are slow to break down and are now present everywhere - in food, water, air and soil, as well as clothing, cookware, cosmetics and other common household items. Unfortunately, long term exposure to PFAS can lead to illnesses such as cancer and thyroid disease. Through the Safe Drinking Water Act, the EPA is taking action to protect public health by establishing limits to reduce PFAS exposure for millions of Americans served by public water systems.

Austin Water has been following EPA's rule proposal on PFAS closely to determine the most appropriate testing protocols and treatment options for our region. It is important to note that the risk of PFAS exposure is not uniform across the country and is dependent on locations of source water and potential industrial discharge sites that could impact source water quality. Austin is fortunate to draw from the Highland Lakes, which has had many decades-long environmental protections in place, including a ban prohibiting the discharge of pollutants. The risk of exposure to PFAS in drinking water here is much lower than other more industrialized jurisdictions.

Past sampling conducted by Austin Water for six PFAS chemicals showed no detections. Beginning in 2023, the EPA's [Fifth Unregulated Contaminant Monitoring Rule \(UCMR 5\)](#) requires drinking water providers like Austin Water to monitor the level of lithium - a metal/ pharmaceutical - and 29 specific PFAS chemicals, six of which the EPA will soon regulate. The nationwide results of UCMR 5 sampling will be used by the EPA to determine if future regulations surrounding PFAS are needed.

In October 2023, Austin Water began quarterly UCMR 5 testing for PFAS chemicals and found that treated tap water from all three water treatment plants were non-detect for the six PFAS compounds anticipated for regulation by the EPA.

The 2023 results from this first round of UCMR 5 tests are available in the data table under unregulated contaminants.



# GET THE LEAD OUT

Austin Water has been evaluating and inspecting our system’s service lines and will complete our inventory of all lines by October of 2024. To date, Austin Water has:

- ◆ Found no lead in active service lines.
- ◆ Researched service lines to all schools we serve – none contain lead.
- ◆ Researched service lines to all licensed daycares we serve – none contain lead.
- ◆ Expanded testing beyond what the EPA requires.
- ◆ Provided customers with support if a lead service line is suspected (free filter pitcher, flushing instructions and free water testing).

## Check Your Plumbing for Lead

Lead sources are often found in plumbing systems on the property owner’s side of the meter. Although a property owner may have lead piping or fixtures, it does not necessarily mean they are exposed. Austin Water’s lime softening process helps coat pipes and prevent corrosion that could leach lead into drinking water, even on the private side. However, it is a good strategy to identify and replace potential sources of lead on private property. Austin Water can provide free water testing resources, and a private plumber can advise on the type of pipes in your home.

Some common sources of lead can include: pipes, solder, brass plumbing fixtures, faucets and pipe fittings. These lead sources are more likely to be found in homes and buildings built before 1986. Due to the City of Austin’s early adoption of lead prevention and updated land development criteria, these lead sources are less common than many other major cities across the United States.



### Free Water Filters for Schools and Child Care Facilities

Sampling and laboratory testing are the only way to determine if lead is present in a school or childcare facility’s drinking water.

The Texas Commission on Environmental Quality offers a FREE statewide program to help schools and child care centers test for lead within their facilities.

The Lead Testing in School and Child Care Program trains participants to collect samples, analyzes their drinking water for lead, and helps them take corrective action to reduce lead in drinking water if it is detected in their facilities.

Visit the TCEQ website at [TexasLeadTesting.org](https://www.tceq.texas.gov/lead-testing) or call (737) 276-1987 to get started.

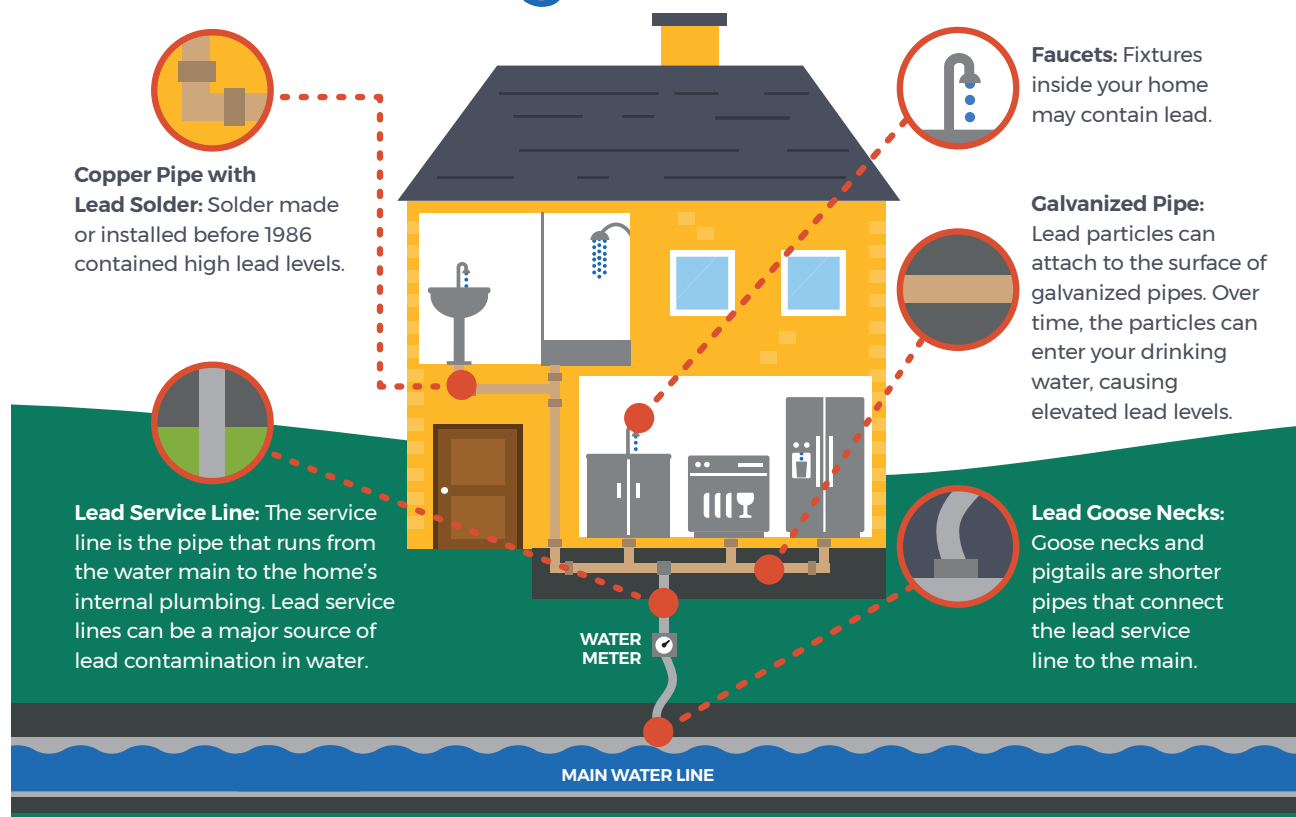


**Austin Water’s lime softening process helps coat pipes and prevent corrosion that could leach lead into drinking water, even on the private side.**



CONCERNED ABOUT LEAD IN YOUR DRINKING WATER?

## Sources of LEAD in Drinking Water



If present, lead can cause serious health problems, especially for pregnant women and young children. In Austin, lead occurs in drinking water primarily from materials and components associated with home plumbing systems. Austin Water is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. To minimize the potential for lead exposure, flush your tap for 30 seconds to 2 minutes before using it for drinking or cooking - especially if water has been sitting in pipes without running for several hours.

If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline 800-426-4791 or [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead). Find information about how Austin Water is keeping lead out of our customer's water at [www.austintexas.gov/lead](http://www.austintexas.gov/lead).

## Fluoride and Infants

In 1945, municipalities began adding fluoride to drinking water to fight tooth decay. Follow up studies in these communities over 13-15 years showed a 50-70% reduction in cavities. Because of the potential public health benefits to residents, the City of Austin held a public vote on fluoridation in the early 1970s. The referendum passed with the support of the community, and Austin Water began adding fluoride to the water on February 2, 1973.

Water fluoridated at a level optimal for oral health (as is used in Austin) poses no known health risks for infants. However, some children may develop enamel fluorosis, a cosmetic condition where faint white markings or streaks may appear on the teeth. If you're concerned about fluorosis, you can minimize your baby's exposure by breast feeding or using ready-to-feed formula. You can also alternate tap water and non-fluoridated water for formula preparation or mix powdered or liquid infant formula concentrate with low-fluoride water most or all of the time. If you use only non-fluoridated water, such as purified, deionized or distilled water to prepare your baby's formula, your doctor may recommend fluoride supplements.



# Consumer Confidence Report



Substance (Sampled in 2023 unless noted differently)	Highest Level Allowed (EPA's MCL)	City of Austin Drinking Water			Ideal Goals (EPA's MCLG)	Possible Sources
Regulated at the Treatment Plant						
		Low	High	Average		
<b>Barium</b> (ppm)	2	0.011	0.013	0.012	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
<b>Beta/photon emitters</b> (pCi/L*)	50	0	4.2	2.1	0	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation
<b>Copper</b> (ppm)	AL = 1.3	0	0.008	0.004	1.3	Corrosion of household plumbing systems; erosion of natural deposits
<b>Cyanide</b> (ppb)	200	0	80	37	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
<b>Fluoride</b> (ppm)	4	0.6	0.8	0.7	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
<b>Nitrate</b> (as Nitrogen) (ppm)	10	0.08	0.19	0.15	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Total Organic Carbon (TOC) Removal Ratio**</b>	TT - Annual average ≥ 1	1.27	2.02	1.59	Not Applicable	Naturally present in the environment
<b>Turbidity</b> (NTU)	TT - 95% of monthly samples must be ≤ 0.3 NTU & no sample can be > 1 NTU	0.02	0.37	0.04	Not Applicable	Turbidity, typically due to soil runoff, measures the clarity of the water and indicates filter effectiveness.

\*EPA considers 50 pCi/L to be the level of concern for beta particles.

\*\*The TOC removal ratio is calculated on a monthly basis and is the percent of TOC removed through the treatment process divided by the percent of TOC required by TCEQ to be removed.

Regulated in the Distribution System						
<b>Chloramines</b> (ppm)	4 (MRDL)	0.42	3.20	2.35	≤ 4 (MRDLG)	Disinfectant used to control microbes
<b>Haloacetic Acids</b> (HAA5) (ppb)	Yearly Average (LRAA) 60	6.6	14.1	10.3	Not Applicable	Byproduct of drinking water disinfection
		Highest LRAA = 12.1				
<b>Total Trihalomethanes</b> (TTHM) (ppb)	Yearly Average (LRAA) 80	25.2	52.1	33.4	Not Applicable	Byproduct of drinking water disinfection
		Highest LRAA = 40.1				

In addition to other routine monitoring, Austin Water tests at locations across our distribution system over 300 times per month for the presence of *E. coli* bacteria. None of these samples tested positive for the presence of *E. coli* bacteria in 2023. Austin Water was not required to conduct a Level 1 or Level 2 Assessment under EPA or State regulations.

### Lead and Copper Rule - Testing is done at customer taps. Testing is done every 3 years.

<b>Copper</b> (ppm) (2021)	AL = 1.3	90% of all samples tested were < 0.004 ppm. None exceeded 1.3			1.3	Corrosion of household plumbing systems; erosion of natural deposits
<b>Lead</b> (ppb) (2021)	AL = 15	90% of all samples tested were < 1.0 ppb. One sample exceeded 15			0	Corrosion of household plumbing systems; erosion of natural deposits

### Unregulated Contaminants

Substance (Sampled in 2023 unless noted differently)	Highest Level Allowed (EPA's MCL)	Low	High	Average	Ideal Goals (EPA's MCLG)	Possible Sources
<b>Bromodichloromethane</b> (ppb)	Not Regulated Individually	7.5	15.3	10.3	0	Byproduct of drinking water disinfection
<b>Dibromochloromethane</b> (ppb)	Not Regulated Individually	8.6	13.2	10.9	60	
<b>Chloroform</b> (ppb)	Not Regulated Individually	4.3	22.3	8.9	70	
<b>Bromoform</b> (ppb)	Not Regulated Individually	2.0	6.1	3.2	0	

### Fifth Unregulated Contaminant Monitoring Rule - UCMR 5\*

<b>Perfluorobutanoic Acid</b> (PFBA) (ppt)	Not Regulated	5.7	8.4	7.2	Not Applicable	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.
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Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted. Any unregulated contaminants detected are reported in the table above. For additional information and data visit [epa.gov](http://epa.gov) or call the Safe Drinking Water Hotline (800-426-4791)

\*UCMR 5 samples were collected for lithium and a total of 29 per- and polyfluoroalkyl substances (PFAS) in 2023. Of these samples, lithium and 28 PFAS compounds were not detected above the Minimum Reporting Level (MRL). For additional information and data visit [epa.gov/dwucmr](http://epa.gov/dwucmr) or call the Safe Drinking Water Hotline (800-426-4791)

### Table Key

**AL = Action Level** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Level 1 Assessment** = A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria were found.

**Level 2 Assessment** = A very detailed study of the water system to identify potential problems and determine (if possible) why an *Escherichia coli* (*E. coli*) MCL violation has occurred and/or why total coliform bacteria were found on multiple occasions.

**TT = Treatment Technique** A required process intended to reduce the level of a contaminant in drinking water.

**MCL = Maximum Contamination Level** The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best treatment technology.

**MCLG = Maximum Contamination Level Goal** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**MRDL = Maximum Residual Disinfectant Level** The highest level of a disinfectant allowed in drinking water. There is evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**LRAA = Locational Running Annual Average** The average of sample results taken at a specific monitoring location during the previous four calendar quarters.

**MRDLG = Maximum Residual Disinfectant Level Goal** The level of a drinking water disinfectant below which there is no known or expected health risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**NTU = Nephelometric Turbidity Units** (a measure of turbidity)

**pCi/L = picocuries per liter** (a measure of radioactivity)

**ppm = parts per million** or milligrams per liter (mg/L)

**ppb = parts per billion** or micrograms per liter (µg/L)

**ppt = parts per trillion** or nanograms per liter (ng/L)

# STAY INFORMED ABOUT YOUR WATER

## Monthly Commission Meetings

There are many opportunities for public input and participation on issues and topics related to water quality. Attend an Austin City Council or Water & Wastewater Commission meeting to learn more. Meeting agendas, dates and times can be found by visiting [austintexas.gov/department/city-council/councilmeetings](https://austintexas.gov/department/city-council/councilmeetings) and [austintexas.gov/content/water-and-wastewater-commission](https://austintexas.gov/content/water-and-wastewater-commission).

## Social Media

Follow Austin Water on [Facebook](#), [X \(Twitter\)](#) and [Instagram](#) for information about water quality, updates about infrastructure improvements we're making to be more resilient, fun lessons for students or opportunities to get involved with water planning in our community. We also share helpful tips on conservation, landscaping and how to protect your pipes during extreme weather events.

## Infrastructure Investments

Austin Water continues to make strategic investments in infrastructure improvements to strengthen the water distribution system, proactively replace water lines and reduce the number of line breaks and the risk of infiltrating contaminants.

## Water Loss

The American Water Works Association and Texas Water Development Board establish industry standards for water loss, known as the Infrastructure Leak Index or ILI. Water loss is a function of leakage from the mains and fixtures and a utility's ILI is scaled to take into account the number of connections and the miles of mains in the system. ILI is not affected by water use or population, which varies from city to city.

For a utility the size of Austin Water, an ILI of between 3 and 5 is considered appropriate. Austin Water's ILI for 2023 was 4.18. Contact us at 512-972-1000 or visit [austinwater.org](https://austinwater.org) to learn more.