

Austin Water strives to deliver drinking water of the highest quality, with exceptional value and reliability. This annual Drinking Water Quality Report provides information on the City of Austin's drinking water as required by the U.S. Environmental Protection Agency (EPA).

There are many opportunities for public participation. The Austin City Council meets on Thursdays. Information on these meetings can be found by visiting austintexas.gov/department/city-council/council-meetings.

Find information about initiatives such as Austin Water's Strategic and Water Forward Plans, Digital Water Meter Project and other resources by visiting austinwater.org.

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al 512-972-0214.

WATER SOURCES

Customers of the City of Austin receive their drinking water from three water treatment plants that pump surface water from the Lower Colorado River as it flows through Lake Travis and Lake Austin. The City of Austin treats the water according to federal and state standards to remove any possible harmful contaminants.

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**.

DRINKING WATER REGULATIONS

Austin Water was in full compliance, incurring no violations with the State of Texas and EPA national primary drinking water regulations during the 12-month period covered by this report.

As a result of Winter Storm Uri, a precautionary city-wide boil water notice was issued in February 2021 due to system pressure falling below minimum standards, however no violations occurred.

SOURCE WATER ASSESSMENT

The Texas Commission on Environmental Quality (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.

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.

All surface water sources are known to be susceptible to contamination by *Cryptosporidium*. Because of this, Austin Water monitors for *Cryptosporidium* in the lake water. Of the 10 total samples collected in 2021, results from 4 samples reported no detection, 5 samples reported a detection of 1 oocyst, and 1 sample reported a detection of 2 oocysts of *Cryptosporidium*. The treatment processes employed at Austin Water's treatment plants are effective for removal of *Cryptosporidium*.

FLUORIDE AND INFANTS

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. Fluorosis can affect both baby teeth and permanent teeth while they're forming under the gums.

If you're concerned about fluorosis, you can minimize your baby's exposure to fluoride in several ways. Breast feeding is the best source of nutrition for infants. If breast feeding is not possible, you can minimize fluoride exposure by 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.

WATER LOSS

The Infrastructure Leak Index (ILI) measures the efficiency of water loss control efforts. It is calculated by taking the real losses (water lost due to leaks) and dividing them by the unavoidable real losses, the theoretical level of minimum leakage calculated by American Water Works Association Standards. Austin Water's 2021 ILI was 3.86.

INFORMATION ABOUT LEAD

If present, lead can cause serious health problems, especially for pregnant women and young children. Lead occurs in drinking water primarily from materials and components associated with service lines and home plumbing. Austin 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. 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. You may find information about how Austin Water is keeping lead out of our customer's water at www.austintexas.gov/lead.

WATER QUALITY REPORT | AUSTIN

January - December 2021



Substance (Sampled in 2021 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		
Barium (ppm)	2	0.010	0.013	0.011	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beta/photon emitters (pCi/L*)	50	4.3	4.3	4.3	0	Decay of natural and man-made deposits
Copper (ppm)	AL = 1.3	<0.002	0.006	0.003	1.3	Corrosion of household plumbing systems; erosion of natural deposits
Cyanide (ppb)	200	10	110	70	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (ppm)	4	0.65	0.90	0.75	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen) (ppm)	10	<0.05	0.17	0.10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Organic Carbon (TOC) Removal Ratio**	TT - Annual average ≥ 1	1.49	2.47	1.97	not applicable	Naturally present in the environment
Turbidity (NTU)	TT - 95% of monthly samples must be ≤ 0.3 NTU & no sample can be > 1 NTU	0.01 100% of readings were below 0.3 NTU each month of the year	0.23	0.04	not applicable	Soil runoff; Austin Water measures turbidity (cloudiness of water) as an indicator of the effectiveness of the filtration system

*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						
Chloramines (ppm)	4 (MRDL)	0	3.4	2.48	≤ 4 (MRDLG)	Disinfectant used to control microbes
Haloacetic Acids (HAA5) (ppb)	Yearly Average (LRAA) 60	5.9	16.6	10.9	not applicable	Byproduct of drinking water disinfection
		Highest LRAA = 12.7				
Total Trihalomethanes (TTHM) (ppb)	Yearly Average (LRAA) 80	21.4	45.1	30.7	not applicable	Byproduct of drinking water disinfection
		Highest LRAA = 33.7				
<i>E. coli</i> Bacteria	A routine sample and a repeat sample are total coliform positive, and one is also <i>E. coli</i> positive	1 sample out of 3721 samples was positive <i>No violation incurred nor was water quality impacted</i>			0	Naturally present in the environment; human and animal fecal waste

In addition to other routine monitoring, Austin Water tests locations across our distribution system over 300 times per month for the presence of *E. coli* bacteria. One of these samples tested positive for the presence of *E. coli* bacteria in 2021. Additional monitoring was completed following the positive sample. No presence of bacteria was detected, thus there was no violation of the *E. coli* MCL. 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.

Copper (ppm)	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
Lead (ppb)	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

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 regulation is warranted. Any unregulated contaminants detected are reported in the following table. For additional information and data visit epa.gov, or call the Safe Drinking Water Hotline (800-426-4791).

Substance	Highest Level Allowed (EPA's MCL)	Low	High	Average	Ideal Goals (EPA's MCLG)	Possible Sources
Bromodichloromethane (ppb)	Not Regulated Individually	7.1	14.1	10.2	0	Byproduct of drinking water disinfection
Dibromochloromethane (ppb)	Not Regulated Individually	6.6	11.2	9.6	60	
Chloroform (ppb)	Not Regulated Individually	4.4	20.2	8.7	70	
Bromoform (ppb)	Not Regulated Individually	1.1	3.4	2.2	0	
Dichloroacetic Acid (ppb)	Not Regulated Individually	3.3	9.9	6.3	0	
Trichloroacetic Acid (ppb)	Not Regulated Individually	<1.0	3.4	2.0	20	
Dibromoacetic Acid (ppb)	Not Regulated Individually	1.5	3.7	2.7	No MCLG	
Bromochloroacetic Acid (ppb)	Not Regulated	2.2	6.6	4.5	No MCLG	
HAA5* - five haloacetic acids (ppb) 2019	Not Regulated	12.9	26.7	17.3	not applicable	
HAA6Br* - six brominated haloacetic acids (ppb) 2019	Not Regulated	9.2	17.2	12.8	not applicable	
HAA9* - nine haloacetic acids (ppb) 2019	Not Regulated	20.9	39.9	28.3	not applicable	

*These parameters were monitored as required by EPA's Fourth Unregulated Contaminant Monitoring Rule (UCMR 4).

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.

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

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

MCLG = Maximum Contaminant 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 convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG = Maximum Residual Disinfectant Level Goal The level of a drinking water disinfectant below which there is no known or expected 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)

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

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

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