



Welcome to the 2016 City of Austin Drinking Water Quality Reports.

To view the report for:

- ◆ City of Austin—pages 2-3
- ◆ River Place/Glenlake—pages 4-5



Austin Water delivers drinking water of the highest quality providing exceptional value and reliability. This annual Drinking Water Quality Report provides information on the Austin's drinking water.

Austin's drinking water met all national and state water quality standards and had no violations in 2016. The U.S. Environmental Protection Agency (EPA) requires that all drinking water suppliers provide a water quality report to their customers on an annual basis.

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

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

WATER SOURCES

Customers of the City of Austin receive their drinking water from three water treatment plants that pump surface water from the Colorado River as it flows into Lake Travis and Lake Austin. The City of Austin treats and filters 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 can be polluted by animals or human activity.

The Colorado River watershed reaches many miles upstream, passing through agricultural and urban areas. Contaminants that may be present in the source water include:

Microbial contaminants, such as viruses and bacteria;

Inorganic contaminants, such as salts and metals;

Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses;

Organic chemicals, from industrial or petroleum use,

Radioactive materials, which can be naturally-occurring.

EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems to ensure that tap water is safe to drink. 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 causes for health concerns. For more concerns with taste, odor, or color of drinking water, contact Austin Water at 512-972-0021.

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**.

SOURCE WATER ASSESSMENT

The Texas Commission on Environmental Quality 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 at our system contact the Utility's Water Regulatory Manager at 512-972-0021.

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 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. *Cryptosporidium* was not found in the lake water tested in 2016.

DRINKING WATER REGULATIONS

Austin Water is in full compliance with the State of Texas and the EPA national primary drinking water regulations during the 12-month period covered by this report, and we continue to be in compliance.

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 beginning at six months.

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. For Austin Water's 2016 ILI, please visit austinwater.org/waterquality.

WATER QUALITY REPORT | AUSTIN

January - December 2016



Substance (Sampled for in 2016 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	0.01	0.01	0.01	2	Natural geology
Copper (ppm)	AL=1.3	<0.002	.016	0.007	1.3	Household plumbing
Fluoride (ppm)	4	0.64	0.73	0.69	4	Natural geology, supplement
Nitrate (ppm)	10	0.17	0.22	0.20	10	Runoff from fertilizer use
Cyanide (ppb)	200	10	140	93	200	Discharge from manufacturing
Combined Radium 226/228 pCi/L (2011)	5	1	1	1	0	Erosion of natural deposits
Turbidity (ntu)-(clarity)	TT (95% of the samples need to be at or below 0.3 ntu)	0.02	0.20	0.05		
		100% of the readings were below 0.3 ntu			Austin Water measures turbidity (cloudiness of the water) as an indicator of the effectiveness of our filtration system.	
TOC Removal Ratio ¹	Annual avg ≥1	0.90	2.61	1.63		
¹ The TOC removal ratio is the percent of TOC removed through the treatment process divided by the percent of TOC required by TCEQ to be re- moved. Total organic carbon (TOC) has no adverse health effects. Total organic carbon provides a medium for the formation of disinfection byproducts when water is disinfected. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and haloacetic acids (HAAs) which are reported below.						
Regulated in the Distribution System						
Chloramines (mg/l)	4.0 (MRDL)	0.01	3.20	2.07	≤4 (MRDLG)	Disinfectant used to control microbes
Total Coliform % Positive	<5% of all samples positive for each month	0	0.70	0.37	0	Naturally present in the environment
Haloacetic Acids (5) (ppb)	Yearly Average 60	9.8	26.5	18.0	not appli- cable	Byproduct of drinking water disinfection
Total Trihalomethanes* (ppb)	Yearly average 80	14.9	55.4	40.7	not appli- cable	Byproduct of drinking water disinfection
*Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.						
Lead and Copper Testing is done at the customer's taps. Testing is done every 3 years.						
Copper (ppm) 2015	AL=1.3	90% of all samples tested were <0.02 ppm. None exceeded 1.3			0	Household plumbing
Lead (ppb) 2015	AL=15	90% of all samples tested were <1.0 ppb. None exceeded 15			0	Household plumbing
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. 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 Drink- ing Water Hotline (800-426-4791) or www.epa.gov/safewater/lead .						
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	Possible Sources
Bromodichloromethane (ppb)	Not Regulated	3.4	19.2	13.9	0	Byproduct of drinking water disinfection
Chlorodibromomethane (ppb)	Not Regulated	1.0	10.1	6.4	60	Byproduct of drinking water disinfection
Chloroform (ppb)	Not Regulated	10.2	30.3	20.5	70	Byproduct of drinking water disinfection
Bromoform (ppb)	Not Regulated	<1	1.3	1.0	0	Byproduct of drinking water disinfection
Dichloroacetic Acid (ppb)	Not Regulated	6.7	16.2	11.2	0	Byproduct of drinking water disinfection
Trichloroacetic Acid (ppb)	Not Regulated	1.3	9.2	5.2	20	Byproduct of drinking water disinfection
Monochloroacetic Acid (ppb)	Not Regulated	<2	4.2	2.1	70	Byproduct of drinking water disinfection
Dibromoacetic Acid (ppb)	Not Regulated	<1	<1	<1	none	Byproduct of drinking water disinfection
Table Key						
AL = Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other require- ments which a water system must follow	TT = Treatment Technique - TT is a re- quired process intended to reduce the level of a contaminant in drinking water	ppm = Parts per million or milligrams per liter (mg/l)		ppb = parts per billion or micrograms per liter (µg/l)		ntu = nephelometric turbidity units (a measure of turbidity) pCi/L=Picocuries per liter-a measure of radioactivity. .
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	MRDL = Maximim Risdual Disinfectant Level - The highest level of a disinfectant allowed in drinking water. There is evidence that addition of a disinfectant helps control microbial contaminants	MRDLG = Maximim Risdual 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			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.	

Austin Water delivers drinking water of the highest quality providing exceptional value and reliability. This annual Drinking Water Quality Report provides information on the River Place Water System's drinking water.

River Place's drinking water met all national and state water quality standards and had no violations in 2016. The U.S. Environmental Protection Agency (EPA) requires that all drinking water suppliers provide a water quality report to their customers on an annual basis.

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

512-972-0214.

There are many opportunities for public participation. The Austin City Council meets Thursdays. Information on these meetings can be found by visiting

austintexas.gov/departments/city-council/council-meetings

WATER SOURCES

Customers of the River Place Water System receive their drinking water from the River Place water treatment plant. The River Place plant treats and filters surface water which is fed through the Highland Lakes by the Colorado River. The water is treated 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 can be polluted by animals or human activity.

The Colorado River watershed reaches many miles upstream, passing through agricultural and urban areas. Contaminants that may be present in the source water include:

Microbial contaminants, such as viruses and bacteria;

Inorganic contaminants, such as salts and metals;

Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses;

Organic chemicals, from industrial or petroleum use,

Radioactive materials, which can be naturally-occurring.

EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems to ensure that tap water is safe to drink. 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 causes for health concerns. For more concerns with taste, odor, or color of drinking water, contact Austin Water at 512-972-0021.

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**.

SOURCE WATER ASSESSMENT

The Texas Commission on Environmental Quality 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 at our system contact the Utility's Water Regulatory Manager at 512-972-0021.

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 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 Lake Austin which is the water source to the River Place Water Treatment Plant. *Cryptosporidium* was not found in the lake water tested in 2016.

DRINKING WATER REGULATIONS

The River Place Water System was in full compliance with the State of Texas and the EPA national primary drinking water regulations during the 12-month period covered by this report, and we continue to be in compliance.

WATER LOSS

For real losses (water lost to leakage) in 2016 visit austinwater.org/waterquality.



WATER QUALITY REPORT | RIVER PLACE & GLENLAKE

January - December 2016



Substance (Sampled for in 2016 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	0.06	0.06	0.06	2	Natural geology
Fluoride (ppm)	4	0.20	0.20	0.20	4	Natural geology, supplement
Nitrate (ppm)	10	0.19	0.19	0.19	10	Runoff from fertilizer use
Gross Beta (pCi/L) 2015	50	4.7	4.7	4.7	0	Decay of animal matter
Combined Radium 226/228 (pCiL) 2015	5	1.5	1.5	1.5		Erosion of Natural Deposits
Cyanide (ppb)	200	120	120	120	200	Discharge from manufacturing
Turbidity (ntu)-(clarity)	TT 95% of the samples need to be at or below 0.3 ntu	0.05	0.28	0.11	Not applicable	Natural river sediment, runoff
		(99.8% of the readings were at or below 0.3 ntu)			Austin Water measures turbidity (cloudiness of the water) as an indicator of the effectiveness of our filtration system	
TOC Removal Ratio ¹	Annual avg ≥1	0.7	1.4	1	Avg ≥1	
¹ The TOC removal ratio is the percent of TOC removed through the treatment process divided by the percent of TOC required by TCEQ to be re- moved. Total organic carbon (TOC) has no adverse health effects. Total organic carbon provides a medium for the formation of disinfection byproducts when water is disinfected. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and haloacetic acids (HAAs) which are reported below.						
Regulated in the Distribution System						
Chloramines (mg/l)	4.0 (MRDL)	0.06	2.9	2.0	≤4 (MRDLG)	Disinfectant used to control microbes
Haloacetic Acids (5) (ppb)	Yearly Average 60	12.0	41.8	23.4	Not applicable	Byproduct of drinking water disinfection
Total Trihalomethanes* (ppb)	Yearly average 80	21.5	72.5	47.3	Not applicable	Byproduct of drinking water disinfection
Total Coliform % Positive	1 positive monthly sample	0	1	.01	0	Naturally present in the environment
*Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.						
Lead and Copper Testing is done at the customer's taps. Testing is done every 3 years.						
Copper (ppm)2015	AL=1.3	90% of all samples tested were <0.12 ppm. None exceeded 1.3			0	Household plumbing
Lead (ppb)2015	AL=15	90% of all samples tested were <2.6 ppb. None exceeded 15			0	Household plumbing
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. 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 Drink- ing Water Hotline (800-426-4791) or at www.epa.gov/safewater/lead .						
Unregulated Contaminants						
Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the 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	Possible Sources
Bromodichloromethane (ppb)	Not Regulated	6.2	22.	13.8	0	Byproduct of drinking water disinfection
Chlorodibromomethane (ppb)	Not Regulated	2.1	10.0	6.3	60	Byproduct of drinking water disinfection
Chloroform (ppb)	Not Regulated	13.2	45.	29.8	70	Byproduct of drinking water disinfection
Bromoform (ppb)	Not Regulated	<1	2.6	1.0	0	Byproduct of drinking water disinfection
Dichloroacetic Acid (ppb)	Not Regulated	6.4	19.5	13.0	0	Byproduct of drinking water disinfection
Trichloroacetic Acid (ppb)	Not Regulated	2.5	19.8	8.5	20	Byproduct of drinking water disinfection
Dibromoacetic Acid (ppb)	Not Regulated	<1	3.3	1.7	0	Byproduct of drinking water disinfection
Table Key						
AL = Action Level - The concen- tration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow	TT = Treatment Technique - TT is a required process intended to reduce the level of a contaminant in drinking water	ppm = Parts per million or milligrams per liter (mg/l)	ppb = parts per billion or micrograms per liter (µg/l)		ntu = nephelometric turbidity units (a measure of turbidity). pCi/L=Picocuries per liter-a measure of radioactivity. .	
MCL = Maximum Contamination Level - The highest level of a con- taminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best treatment technology	MRDL = Maximim Risdial Disinfectant Level - The highest level of a disinfectant allowed in drinking water. There is evidence that addition of a disinfectant helps control microbial contam- inants	MRDLG = Maximim Risdial 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			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.	