

2017 Water Quality Report



AUSTIN
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Connections for Better Living®

Source of Water

Austin Utilities is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2017.

The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources.

Austin Utilities provides drinking water to its residents from a groundwater source: eight wells ranging from 110 to 1075 feet deep that draw water from the Prairie Du Chien-Jordan, Spillville, and St. Peter aquifers.

The water provided to customers meets current drinking water standards, but the MN Department of Health has also made a determination as to how vulnerable the source of water may be to future contamination incidents. If you wish to obtain the entire source water assessment regarding your drinking water, please call 651-201-4700 or 1-800-818-9318 during normal business hours or view it online at:

www.health.state.mn.us/divs/eh/water/swp/swa

Call 507-433-8886 if you have questions about Austin's drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.



Water Treatment

Austin's water quality is especially high due to the depth of the wells and the quality of the source; therefore there is little need for treatment. At each of our wells, the following water treatment products are added to the groundwater before it enters into the distribution system:

- **Fluoridation**

The State of Minnesota requires all municipal water systems to add fluoride to the drinking water to promote strong teeth and prevent tooth decay. The approved range from the Minnesota Department of Health for Austin's water system has been established at a range of 0.5 to 0.9 ppm, with Austin maintaining a 0.71 average in year 2017. Last year alone the staff at Austin Utilities performed a total of 1,854 fluoride tests at different residential and business sites around the city.

- **Disinfection**

Chlorine is added to the water at each well to minimize the chance for any bacteria, viruses or fungi affecting the safety of the drinking water. Total Chlorine is measured weekly at seven specific locations and once

a month at 25 other specific locations throughout the water distribution system. In 2017, staff at Austin Utilities conducted 664 chlorine tests with a result of 1.4 ppm average.

- **Corrosion Control**

A blended polyphosphate solution is used for corrosion control by coating the water distribution system and household piping to prevent the leaching of lead and copper into the drinking water. The blended polyphosphate solution is also used to minimize the appearance of rusty water. Polyphosphates do not remove iron from water but simply stabilize and disperse the iron so that the water remains clear and does not produce iron stains. Polyphosphates are water purification chemicals that are employed to correct problems caused by inorganic groundwater contaminants (iron, manganese, calcium, etc.) and also to preserve water quality in distribution systems. Testing for polyphosphate concentration is conducted monthly at 7 selected locations with results of 1.99 ppm average for the year 2017.



Compliance with National Primary Drinking Water Regulations

The sources of drinking water (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 pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in 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 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, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.



Results of Monitoring

No contaminants were detected at levels that violated federal drinking water standards. However, some contaminants were detected in trace amounts that were below legal limits. The table that follows shows the contaminants that were detected in trace amounts last year. (Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for 2017. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date the detection occurred.

Contaminant	EPA's Limit (MCL or MRDL)	EPA's Ideal Goal (MCLG or MRDLG)	Highest Average or Single Test Result	Range of Detected Test Results	Violation	Typical Source of Contaminant
Inorganic & Organic Contaminants (Tested in drinking water.)						
Arsenic (03/25/13)	10.4 ppb	0 ppb	1.02 ppb	NA	NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Nitrate	10.4 ppm	10 ppm	3.3 ppm	0.00-3.30 ppm	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium (06/17/13)	2 ppm	2 ppm	0.13 ppm	NA	NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Selenium (03/25/13)	50 ppb	50 ppb	7.93 ppb	NA	NO	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Gross Alpha	15.4 pCi/l	0 pCi/l	11 pCi/l	5.7-11.0 pCi/l	NO	Erosion of natural deposits.
Combined Radium	5.4 pCi/l	0 pCi/l	4.5 pCi/l	2.2-4.5 pCi/l	NO	Erosion of natural deposits.
Contaminants Related to Disinfection (Tested in drinking water.)						
Total Trihalomethanes (TTHMs)	80 ppb	NA	27.7 ppb	0.00-27.70 ppb	NO	By-product of drinking water disinfection.
Total Haloacetic Acids (HAA)*	60 ppb	NA	5.80 ppb	0.00-5.80 ppb	NO	By-product of drinking water disinfection.
Total Chlorine	4.0 ppm	4.0 ppm	1.45 ppm	1.32-1.55 ppm	NO	Water additive used to control microbes.
Other Substances (Tested in drinking water.)						
Fluoride	4.0 ppm	4.0 ppm	0.59 ppm	0.56-0.58 ppm	NO	Erosion of natural deposits; Water additive to promote strong teeth

*Total HAA refers to HAA5

Regulated Substances Controlled in the Distribution System (Tested in drinking water.)

Contaminant	EPA's Action Level	EPA's Ideal Goal (MCLG)	90% of Results Were Less Than	# of Homes with High Levels	Violation	Typical Source
Copper (06/09/16)	90% of homes less than 1.3 ppm	0 ppm	0.76 ppm	1 out of 30	NO	Corrosion of household plumbing.
Lead (06/09/16)	90% of homes less than 15 ppb	0 ppb	2.8 ppb	0 out of 30	NO	Corrosion of household plumbing.

AU samples and tests for Lead and Copper every 3 years to comply with the EPA's Lead & Copper Rule. The next round of sampling and testing is July 2019.

Lead in Drinking Water

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 material and components associated with service lines and home plumbing. Austin Utilities is responsible for providing high quality drinking water, but cannot control the variety of material 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 our 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 or at www.epa.gov/safewater/lead.

Key

- 90% Level .. 90% of samples must be below the AL.
- AL Action Level is the concentration of a contaminant which triggers treatment or another requirement which a water system must follow.
- gpg Grains per gallon.
- MCL (Maximum Contaminant Level) Highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- MCLG (Maximum Contaminant Level Goal) 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
- MRDLG Maximum Residual Disinfectant Level Goal
- N/A Not Applicable.
- ND Not Detected.
- NT Not Tested.
- Ntu Nephelometric units.
- PCi/L Pico curies per liter (a measure of radioactivity).
- ppb Parts per billion.
- ppm Parts per million.
- Range Lowest to the highest a contaminant was detected in 2015.
- SMCL Secondary Maximum Contaminant Level.

Water Conservation

Austin Utilities pumps an average of 5.5 million gallons of water per day; however, during the summer, demand can dramatically increase to over 9.5 million gallons per day. You can help make a difference conserving water by using the following tips:

- Monitor your water bill for unusually high use. Your bill and water meter are tools that can help you discover leaks.
- When buying new appliances, consider those that offer cycle and load size adjustments. They are more water and energy efficient.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Keep a gallon of water in the refrigerator rather than running the tap for cold water.

Austin Utilities offers CONSERVE & SAVE® rebates on qualifying equipment purchases to promote and encourage water conservation. For full details and a list of rebates available, visit www.austinutilities.com.

CONSERVE & \$AVE®

Austin Utilities Water System

Water Hardness

The average water hardness for Austin is at 16 grains per gallon (gpg).

Total Water Storage

- 500,000 Gallon Elevated Storage Reservoir (Ellis Tower)
- 1,000,000 Gallon Elevated Storage Reservoir (Belair Tower)
- 2,500,000 Gallon Ground Storage Reservoir (Downtown Plant)
- 2,000,000 Gallon Ground Storage Reservoir (Energy Park)

Total Number of Wells in Service - 8

- Well No. 2 (Todd Park)
- Well No. 3 (Service Drive)
- Well No. 4 (Sargeant Springs at Country Club)
- Well No. 6 (Ellis)
- Well No. 8 (8th Ave SW)
- Well No. 9 (Belair)
- Well No. 11 (Elmhurst)
- Well No. 12 (Energy Park)

*Monitoring may have been done
for additional contaminants that do not have
MCLs established for them and are not required
to be monitored under the Safe Drinking Water Act.*

*Results may be available by calling
651-201-4700 or 1-800-818-9318
during normal business hours.*



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