Brookesmith Special Utility District
2016 Consumer Confident Report

Spanish (Espanol)

Este informe contiene informacion muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuniquese con alguien que pueda traducir la informacion.

Is my water safe?

Yes, your water is safe! Brookesmith Special Utility District (BSUD) is pleased to present this year's Consumer Confidence Report (Annual Water Quality Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

Where does my water come from?

All of our water is purchased pre-treated from Brown County Water Improvement District #1. Their water source is Lake Brownwood (surface water).

Source water assessment and its availability

The TCEQ has completed a Source Water Assessment for all drinking water systems that own their sources. The report describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The system from which we purchase our water received the assessment report. For more information on source water assessments and protection efforts at their system, contact John Allen, Superintendent, Brown County WID #1 Filter Plant. For a copy of the source water assessment contact Brown County WID at (325) 646-9356

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:
http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: http://dww.tceq.texas.gov/DWW

Why are there contaminants in my drinking water?

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. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

In order to ensure that tap water is safe to drink, EPA prescribes regulations that 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.

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:

-Microbial contaminants, such as viruses and bacteria, 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, urban storm water 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 storm water runoff, and septic systems; and
-Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Source water can also contain secondary contaminants. These include contaminants (such as calcium, sodium, or iron), which are often found in drinking water that can cause taste, color, and odor problems. The taste and odor contaminants are called secondary contaminants and are regulated by the State of Texas, not the EPA. Secondary contaminants are not causes for health concern; therefore, are not required to be reported in this document but they may affect the appearance and taste of your water

Description of Water Treatment Process

Your water is treated by disinfection. Disinfection involves the carefully controlled and monitored addition of chlorine and ammonia to kill dangerous bacteria and microorganisms that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

Do I need to take special precautions?

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. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Source Water Protection Tips

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.

- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

Cross-Connection Control Policy

A cross-connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and insuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below at your home, farm, or business, please contact us immediately so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if necessary:

- Boiler/ Radiant heater (water heaters not included)
- Underground lawn sprinkler system

- Pool or hot tub (whirlpool tubs not included)
- Additional source(s) of water on the property (i.e. wells, tanks, natural springs)
- Decorative pond
- Watering trough

Failure to comply with our Cross-Connection Control Policy can result in termination of service.

Water Loss Audit

In the water loss audit submitted to the Texas Water Development Board for the time period of January - December 2016 our system lost an estimated 58.3 million gallons of water. If you have any questions about the water loss audit please call (325) 646-5731.

How can I get involved?

Brookesmith SUD Board of Directors holds open meetings the second Tuesday of every month at 7:00 AM (unless otherwise posted) at the Brookesmith SUD office located at 1100 CR 554 Brownwood TX, 76801.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report, and an excerpt from the BCWID 2016 report. The full report from BCWID is available upon request. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA and/or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Max Level	Range Low	Range High	Sample Date	Violation	Typical Source
Disinfectants & Disinfectant By-Products (Tested by BSUD during 2016)								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
TTHMs [Total Trihalomethanes] (mg/L) LRAA	NA	.080	.091	.058	.091	2016	No	By-product of drinking water disinfection
Haloacetic Acids (HAA5)(mg/L) LRAA	NA	.060	.101	.037	.101	2016	Yes	By-product of drinking water chlorination.
Chloramine (as Cl2) (mg/L) 1st qtr	NA	5	5	0.52	5	2016	No	Water additive used to control microbes
Chloramine (as Cl2) (mg/L) 2nd qtr	NA	5	5	0.50	4.8	2016	No	Water additive used to control microbes
Chloramine (as Cl2) (mg/L) 3rd qtr	NA	5	5	0.51	4.9	2016	No	Water additive used to control microbes
Chloramine (as Cl2) (mg/L) 4th qtr	NA	5	5	0.54	5	2016	No	Water additive used to control microbes
Inorganic Contaminants (From the BCWID 2016 Report)								
Nitrate (ppm)	10	10	0.31	.15	.31	2016	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride(ppm)*	4	4	0.25	0.25	.25	2016	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories

Selenium(ppm)*	50	50	0.0030	0	0.0030	2016	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Barium (ppm)	2	2	0.125	.125	.125	2016	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural
Arsenic (ppm)	0	10	<.002	0	0	2016	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and
Antimony(ppm)	6	6	< .001	0	0	2016	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder;test addition.
Beryllium (ppm)	4	4	<.0008	0	0	2016	No	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and
Cadmium(ppm)	5	5	<.001	0	0	2016	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff
Chromium(ppm)	100	100	<.010	0	0	2016	No	Discharge from steel and pulp mills; Erosion of natural deposits
Thallium(ppm)	0.5	2	<.0004	0	0	2016	No	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories

Microbiological Contaminants (Tested by BSUD during 2016)								
Fecal coliform/E. coli - in the distribution system (positive samples)	0	0	0	NA		2016	No	Human and animal fecal waste
A violation occurs when a routine sample and a repeat sample, in any given month, are total coliform positive, and one is also fecal coliform or E. coli positive.								

Unit Descriptions	
Term	**Definition**
mg/L	mg/L: Number of milligrams of substance in one liter of water
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
Positive samples	positive samples/yr: The number of positive samples taken that year
NA	NA: not-applicable
ND	ND: Not-detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	**Definition**
MCLG	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.

MCL	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 available treatment technology.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection 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.
MRDL	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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

Lead and Copper

If present, elevated levels of lead and/or copper can cause serious health problems, especially for pregnant women and young children. Lead/copper in drinking water is primarily from materials and components associated with residential service lines and home plumbing. We are responsible for providing high quality drinking water, but cannot control the variety of materials used in residential plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead/copper exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead/copper in your water, you may wish to have your water tested. Information on lead and copper in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Lead and Copper	Date Sampled	ALG	AL	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	June 2015	1.3	1.3	0.15	0	ppm	N	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead	June 2015	0	.015	.0032	1 (.011)	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Term	Definition
Action Level Goal (ALG)	The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety. Margin of safety.

Action Level (AL)	The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.
90th Percentile	Sample #18 out of 20 samples, ranked lowest to highest. Sample #18 is the sample that we measure against the AL to determine if action is required.

Violations for 2016

Total Haloacetic Acids Locational Running Annual Average (HAA5 LRAA): Haloacetic Acids are a group of volatile organic compounds that are formed when chlorine, added to the water during the treatment process for disinfection, reacts with naturally-occurring organic matter in the water. The EPA has set the Maximum Contaminate Level (MCL) for total haloacetic acids (group of 5) to be 0.060 milligrams per liter (mg/L) based on locational running annual average (LRAA), which includes 4 quarterly samples, and has determined that it is a health concern at levels above the MCL over prolonged periods of time.

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, LRAA	Nov 2016	Mar 2017	During the 4th Qtr 2016, we had one isolated high sample that put our LRAA over the MCL at .101 mg/L. Subsequent samples were below the MCL and our LRAA returned to normal levels during 1st Qtr 2017.

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