

2017 Consumer Confidence Report

Spanish (Español)

Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúscalo o hable con alguien que lo entienda bien.

Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence 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.

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). 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).

Where does my water come from?

Bryan Co. Rural Water District #2 has two sources of water. Our primary water source is surface water from Blue River and our secondary source is Eagle Lake. The lake supplies surface water to a 1.2 million gallon per day treatment facility. We also have one (1) water well which is capable of pumping 250-300 gpm. In emergency situations, we also purchase water from the City of Durant.

Source water assessment and its availability

We have a source water protection plan available in our office which identifies the Qualitative Susceptibility Rating for the Blue River and Eagle Lake as MODERATE. Some of the potential sources of contamination are houses, septic systems, barns/sheds, etc. This Plan may be reviewed anytime during our regular office hours, 8:00 A.M. - 5:00 P.M., Monday thru Friday excluding Holidays.

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). 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). 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, that 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 stormwater 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; and 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, 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.

How can I get involved?

If you have any questions about this report or concerning your water utility, please contact Manager Regina Clinton at (580) 924-8517. The Water District's mailing address is P.O. Box 119, Mead, OK 73449. For after hour and weekend emergencies, please call our emergency number (580) 916-1880. We want our valued customers to be informed about their water utility so, if you want to learn more, our regularly scheduled meetings are held at 5:30 P.M. on the 2nd Monday of each month at the Bryan Co. Rural Water District #2 Office located at 9077 US Hwy 70, Mead, OK. We would also like to encourage all of our customers to go to our website, www.ruralwater2.com, and click on the "Alert" tab and register to receive important news and alerts about your water via text and/or email.

Description of Water Treatment Process

Your water is treated in a "treatment train" (a series of processes applied in a sequence) that includes coagulation, flocculation, sedimentation, filtration, and disinfection. Coagulation removes dirt and other particles suspended in the source water by adding chemicals (coagulants) to form tiny sticky particles called "floc," which attract the dirt particles. Flocculation (the formation of larger flocs from smaller flocs) is achieved using gentle, constant mixing. The heavy particles settle naturally out of the water in a sedimentation basin. The clear water then moves to the filtration process where the water passes through sand, gravel, charcoal or other filters that remove even smaller particles. A small amount of chlorine or other disinfection method is used to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water before water is stored and distributed to homes and businesses in the community.

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 Survey

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. 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 please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is 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
- Decorative pond
- Watering trough

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.

Significant Deficiencies

All required samples have been taken and show that we are meeting drinking water standards.

Additional Information for Lead

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. Bryan Co. Rural Water, Sewer & Solid Waste Management Dist. #2 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 or at <http://www.epa.gov/safewater/lead>.

Total Organic Carbon (TOC) Explanation

The percentage of Total Organic Carbon (TOC) removal was measured each month and Bryan Co. Rural Water District #2 and the City of Durant met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

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. Although many more contaminants were tested, only those substances listed below were found in your water. 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 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	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl ₂) (ppm)	4	4	1	NA	1	2017	No	Water additive used to control microbes.
Haloacetic Acids (HAA5) (ppb)	NA	60	56	28.1	77.4	2017	No	By-product of drinking water disinfection.
TTHMs [Total Trihalomethanes] (ppb)	NA	80	117	44.3	122.1	2017	Yes	By-product of drinking water disinfection.
Total Organic Carbon (% Removal)	NA	TT	-1	NA	NA	2017	No	Naturally present in the environment
Inorganic Contaminants								
Nitrate [measured as Nitrogen] (ppm)	10	10	.14	NA	NA	2016	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Microbiological Contaminants								
Turbidity (NTU)	NA	0.3	2	NA	NA	2017	Yes	Soil runoff
2% of the samples were below the TT value of .3. A value less than 95% constitutes a TT violation. The highest single measurement was 1.6. Any measurement in excess of 1 is a violation unless otherwise approved by the state.								
Radioactive Contaminants								
Beta/photon emitters (mrem/yr)	0	4	1.18	NA	NA	2013	No	Decay of natural and man-made deposits. The EPA considers 4 mrem/yr (50 pCi/L) to be the level of concern for Beta particles.
Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
Inorganic Contaminants								
Copper - action level at consumer taps (ppm)	1.3	1.3	.278	2015	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	
Inorganic Contaminants								
Lead - action level at consumer taps (ppb)	0	15	.001	2015	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Violations and Exceedances								

Violations and Exceedances**TTHMs [Total Trihalomethanes]**

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 system, and may have an increased risk of getting cancer.

HAA5 ONLY:

VIOLATION BEGIN: 01/01/2017

VIOLATION END: 03/31/2017

TTHM ONLY:

Violation Begin: 1/1/2017

Violation Ended: 6/30/2017

We have recently installed an aeration system on our Lakewood water tower. This method has been known to decrease the TTHMs and HAA5 and help other Water Districts to get back in compliance. All samples collected since July 2017 have been in compliance.

Turbidity

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth.

Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. One turbidity measurement exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water.

Violation Begin: 7/1/2017

Violation End: 7/31/2017

This violation occurred due to input errors on the Turbidity levels on the Monthly Operational Report (MOR). The readings of 1.45 and 1.60 were typed in, when the actual readings were 0.145 and 0.160. These issues were addressed and the proper modifications were made immediately.

Additional Contaminants

In an effort to insure the safest water possible the State has required us to monitor some contaminants not required by Federal regulations. Of those contaminants only the ones listed below were found in your water.

Contaminants	State MCL	Your Water	Violation	Explanation and Comment
Barium (as per City of Durant CCR)	2 ppm	.0279 ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits 2013 Sample Results.
Beta/photon emitters (as per City of Durant CCR)	4 mrem/yr	3.62 mrem/yr	No	Decay of natural and man-made deposits. 2013 Sample Results.
Chlorine (as Cl ₂) (as per City of Durant CCR)	4 ppm	2 ppm	No	Water additive used to control microbes
Chlorite (as per City of Durant CCR)	1 ppm	.567 ppm	No	By-product of drinking water disinfection
Copper - action level at consumer taps (as per City of Durant CCR)	1.3 ppm	.04788 ppm	No	Corrosion of household plumbing systems; Erosion of natural deposits. 2016 Sample Results.
Fluoride (as per City of Durant CCR)	4 ppm	.81 ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Haloacetic Acids (HAA5) (as per City of Durant CCR)	60 ppb	18 ppb	No	By-product of drinking water chlorination
Lead (as per City of Durant CCR)	15 ppb	1.12 ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits

Contaminants	State MCL	Your Water	Violation	Explanation and Comment
Total Trihalomethanes (TTHMs) (as per City of Durant CCR)	80 ppb	30 ppb	No	By-product of drinking water disinfection

Undetected Contaminants

The following contaminants were monitored for, but not detected, in your water.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Violation	Typical Source
Barium (ppm)	2	2	ND	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
mrem/yr	mrem/yr: millirems per year (a measure of radiation absorbed by the body)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
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.
Variations and Exemptions	Variations 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

Important Drinking Water Definitions

MPL

MPL: State Assigned Maximum Permissible Level

TT Violation	Explanation	Length	Health Effects Language	Explanation and Comment
Surface water treatment rule filtration and disinfection violations	<p>We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. During the month of July and August 2017, one (1) sample was above the standard of 1 turbidity units. Because of these high levels of turbidity, there is an increased chance that the water may contain disease-causing organisms.</p> <p>We also routinely monitor for disinfectant residual (free chlorine) at the point of entry to the distribution system and in the distribution system. This tells us whether we are effectively disinfecting the water supply and preventing the growth of organisms. During the month of July 2017, eleven (11) chlorine residual samples at the point of entry to the distribution system were less than 1.0 mg/l and during the month of August 2017, four (4) chlorine residual samples at the point of entry to the distribution system were less than 1.0 mg/l.</p>	Violation Begin: 7/1/2017 Violation End: 7/31/2017	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	<p>It was found that there were input errors on the July and August Monthly Operational Report (MOR). Turbidity readings were entered as 1.45 and 1.60 on July 30th and 1.26 on August 22nd. Actual levels were 0.145, 0.160 and .23. These issues were addressed and the proper modifications in treatment practices were made immediately.</p> <p>The drop in chlorine levels in July were due to the start up and use of our well pump, which produces water with a much higher chlorine demand than the conventional surface water. The drop in chlorine levels in August was due to a shut down of the plant during the overnight hours due to excessive rains. This caused a tripping of the electrical breaker in the chlorine room, which was immediately found and reset when the weekend operator reported for work the next morning. These issues were addressed and the proper modifications in treatment practices were made immediately.</p>
Lead and copper rule violations			Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	

TT Violation	Explanation	Length	Health Effects Language	Explanation and Comment
Ground Water Rule violations	We routinely monitor for the presence of drinking water contaminants. Results of regular monitoring are indicator of whether or not your drinking water meets health standards. During May and August 2014 and August 2015, we failed to collect follow-up samples within 24 hours of learning of a total coliform-positive sample. These needed to be tested for fecal indicators from all sources (one water well) that were being used at the time the positive sample was collected. Our water well was not in operation from July 14, 2014 to October 15, 2014. Since these samples were not collected from our water well during the August 13, 2015 violation, we cannot be sure of the quality of our drinking water during that time.	Violation Begin: 6/9/2014 Violation End: 3/1/2017 Violation Begin: 8/21/2014 Violation End: 3/1/2017 Violation Begin: 8/13/2015 Violation End: 3/1/2017	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	All required samples have been taken and show that we are meeting drinking water standards. This was reported on the 2016 CCR, but the Dept. of Environmental Quality did not close out the violation, therefore we were required to also include it on the 2017 CCR.

For more information please contact:

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