2015 Consumer Confidence Report

Is my water safe?

Bryan Co. Rural Water Dist. #2 routinely monitors for constituents in your drinking water according to Federal and State laws. Last year, we conducted tests for over 80 contaminants. We only detected 41 of those contaminants, and found only 3 at a level higher than the EPA allows. As we told you at the time, our water temporarily exceeded drinking water standards. (For more information see the section labeled Violations at the end of the report.) This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with information because informed customers are our best allies. The table below shows the results of our monitoring for the period of January 1st to December 31st 2015 (Some of our data may be more than one year old because the state allows us to monitor for some contaminants less often than once per year).

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. Immunocompromised 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 <u>Moderate</u>. 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, <u>www.ruralwater2.com</u>, and click on the "Alert" tab and register to receive important news and alerts about your water via text and/or email.

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 <u>www.epa.gov/watersense</u> 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.

Additional Information about 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 District #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 leak 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, 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.

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.

	MCLG	MCL,	T 7	Ra	nge	a 1				
Contaminants	or MRDLG	TT, or MRDL	Your Water	Low	High	Sample Date	Violation	Typical Source		
Disinfectants & Disinfection By-Products										
(There is convincing er contaminants)	vidence the	at additio	on of a c	lisinfe	ctant is	necessar	ry for cont	rol of microbial		
Chlorite (ppm) – City of Durant	.8	1	.504	.0564	.504	2015	No	By-product of drinking water disinfection		
Chlorine – City of Durant (as Cl2) (ppm)	4	4	2	1	2	2015	No	Water additive used to control microbes		
Chlorine – RWD #2 (ppm)	4	4	1	1	1	2015	Yes	Water additive used to control microbes		
Haloacetic Acids (HAA5) (ppb) – RWD #2	NA	60	51	24.9	59.1	2015	No	By-product of drinking water disinfection		
Haloacetic Acids (HAA5) (ppb) – City of Durant	NA	60	50	7.4	66.1	2015	No	By-product of drinking water disinfection		
TTHMs [Total Trihalomethanes] (ppb) – RWD #2	NA	80	113	60.4	325.9	2015	Yes	By-product of drinking water disinfection		
TTHMs (Total Trihalomethanes) (ppb) – City of Durant	NA	80	50	12.3	71.4	2015	No	By-product of drinking water disinfection		
Total Organic Carbon (% Removal)	NA	TT	-1	NA		2015	No	Naturally present in the environment		

Total Organic Carbon (TOC) Explanation:

<u>RWD #2:</u> The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

<u>City of Durant Explanation of Violations/Exceedances:</u> Total Organic Carbon has no health effects. However, total organic carbon provides a medium for the formation of

	MCLG			Ra	nge			
		TT, or				Sample		
Contaminants	MRDLG	MRDL	Water	Low	High	Date	Violation	Typical Source

disinfection by-products. These by-products include Trihalomethanes (THMs) and Haloacetic Acids (HAAs). Drinking water containing these by-products in excess of the MCL may lead t adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer. Sample was sent on March 10th of 2015, and the sample was broken in transport and the Water Plant was notified April 1, 2015 and was after the monitoring period was over. We pulled a sample and sent it in to the lab as soon as we found out about the broken sample and it was too late for that sampling period.

Microbiological Cont	Microbiological Contaminants											
Total Coliform (positive samples/month)	0	1	3	NA		2015	Yes	Naturally present in the environment				
RWD #2 Turbidity												
Turbidity (NTU) – Lowest monthly % meeting limit	NA	0.3 NTU	51%	NA		2015	Yes	Soil runoff				
Turbidity (NTU – Highest single measurement		1 NTU	3.7 NTU			2015	Yes	Soil runoff				

51% of the samples were below the TT value of .3. A value less than 95% constitutes a TT violation. The highest single measurement was 3.7. Any measurement in excess of 1 is a violation unless otherwise approved by the state. Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because is is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

City of Durant Turbidity											
Turbidity (NTU) – Lowest monthly % meeting limit	NA	0.3 NTU	97%	NA	2015	No	Soil	runoff			
97% of the samples w highest single measure approved by the state.											
										Decay of natural a	

Beta/photon emitters (mrem/yr) – RWD #2	0	4	1.18	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.
Beta/photon emitters (mrem/yr) – City of Durant	0	4	3.62	NA	2013	NO	Decay of natural and man-made deposits.

Contaminants Inorganic Contamin	MCLG	AL			# Samples Exceeding AL	Exceeds AL	Typical Source
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
Copper – action level at consumer taps (ppm)	1.3	1.3	.0159	2013	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Barium – RWD #2	2	2	0.0508	2013	0	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Barium – City of Durant	2	2	.0279	2013	0	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	.81	2013	0	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories

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.

Violation Ended:
6/30/2015
9/20/2015
12/31/2015

Water samples showed that the amount of TTHMs in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated. This was due to the high levels of manganese in our raw water this past summer, which forced us to begin pre-chlorination in our water treatment process, which caused an increase in our TTHMs. Our manganese levels are back to normal and we are back to our normal treatment process. Our first quarter TTHM levels were back in compliance, but the second quarter showed that we exceeded the MCL. We are working closely with our engineers and DEQ in order to resolve this problem.

Total Coliform

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Violation Begin Violation End

7/1/2015 7/31/2015

Total Coliform bacteria were found in our drinking water during the period indicated in enough samples to violate a standard. All samples since this time period show that we are in compliance.

Additional Monitoring

As part of an on-going evaluation program the EPA has required the City of Durant to monitor some additional contaminants/chemicals. Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are based on sound science.

		Ra	inge
Name	Reported Level	Low	High
chlorate (ppb)	387.75	225	505
chromium-6 (hexavalent chromium) (ppb)	.0319		.0319
strontium (ppb)	74.65	75.5	116
vanadium (ppb)	1.04	.297	2.46

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (μ g/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.
positive samples/month	positive samples/month: Number of samples taken monthly that were found to be positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drin	Important Drinking Water Definitions								
Term	Definition								
	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.								

Important Drin	Important Drinking Water Definitions							
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							

TT Violation	Explanation	Length	Health Effects Language	Explanation and Comment
Surface water treatment rule filtration and disinfection violations	We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. In May, June and July 2015, our turbidity meter was not functioning adequately and due to the busy schedule of our technician, he was not able to be on site to make proper repairs until August therefore, during the month of May 2015, fourteen (14) samples showed to be above the standard of 1 turbidity units. Water samples for May 2015 showed that thirty-five percent (35%) of turbidity measurements were over 0.3 turbidity units and for June 2015 showed that forty-nine percent (49%) were over 0.3 turbidity units - the standard for turbidity requires that no more than five percent (5%) of samples exceed 0.3 turbidity units per month. During the month of May 2015, twenty-seven (27) samples were not taken. Because of these possible high levels of turbidity, we cannot be sure of the quality of our	Violation Begin – 5/1/2015 Violation End - 7/31/2015	All equipment has been repaired and has been back online since August 2015. Turbidity samples show that we are now meeting drinking water standards.	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
	drinking water during the periods indicated.			
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 Violation End 6/9/2014 2015 8/21/2014 2015 8/13/2015 2015	All required samples have been taken and show that we are meeting drinking water standards.	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.

For more information please contact:

Contact Name: Regina Clinton Address: P. O. Box 119 Mead, OK 73449 Phone: 580-924-8517