Northeast Yell County Water Association

2019 Annual Drinking Water Quality Report

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our goal is to provide you with a safe and dependable supply of drinking water, and we want you to understand, and be involved in, the efforts we make to continually improve the water treatment process and protect our water resources.

Where Does Our Drinking Water Come From?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. We purchase treated water from Danville Water Department and Dardanelle Waterworks. Water from Danville comes from two treatment facilities: The Cedar Piney Plant which treats surface water from Cedar Piney Reservoir and the Dale Scott Plant which treats surface water from the Petit Jean River. Dardanelle Waterworks' sources are nine wells that pump from the Quaternary System Aquifer. Dardanelle also purchases water from Tri-County Regional Water Distribution District. Tri-County Regional purchases treated surface water from City Corporation of Russellville. City Corporation's source is Illinois Bayou which supplies Huckleberry Creek Reservoir. They also purchase treated water from the City of Atkins whose source is surface water from Gala Creek Lake.

How Safe Is The Source Of Our Drinking Water?

The Arkansas Department of Health has completed Source Water Vulnerability Assessments for Dardanelle Water Department and Danville Water Department. The assessments summarize the potential for contamination of our sources of drinking water and can be used as a basis for developing source water protection plans. Based on the various criteria of the assessments, our water sources have been determined to have a medium to high susceptibility to contamination. You may request summaries of the Source Water Vulnerability Assessments from our office.

What Contaminants Can Be In Our Drinking Water?

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, 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 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; Radioactive contaminants which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to assure tap water is safe to drink, EPA has 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.

Am I at Risk?

All 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. However, 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 small amounts of contamination. 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. In addition, EPA/CDC guidelines on appropriate means to lessen the risk of infection by microbiological contaminants are also available from the Safe Drinking Water Hotline.

Lead and 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 materials and components associated with service lines and home plumbing. We are 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.

How Can I Learn More About Our Drinking Water?

If you have any questions about this report or concerning your water utility, please contact Brandon Carter, Manager, at 479-229-2800. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second Tuesday of every month at 6:00 PM at the water office, 2443 State Hwy 22 W in Dardanelle.

TEST RESULTS

We, Danville Water Department, Dardanelle Water Department, City Corporation, and Tri County Water routinely monitor for constituents in your drinking water according to Federal and State laws. The test results table shows the results of our monitoring for the period of January 1st to December 31st, 2019. In the table you might find terms and abbreviations you are not familiar with. To help you better understand these terms we've provided the following definitions:

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Maximum Contaminant Level (MCL) - 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.
Maximum Contaminant Level Goal (MCLG) – unenforceable public health 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.
Maximum Residual Disinfectant Level (MRDL) - 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.
Maximum Residual Disinfectant Level Goal (MRDLG) - 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.
NA – not applicable
Nephelometric Turbidity Unit (NTU) – a unit of measurement for the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
Parts per billion (ppb) - a unit of measurement for detected levels of contaminants in drinking water. One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
Parts per million (ppm) – a unit of measurement for detected levels of contaminants in drinking water. One part per million corresponds to one minute in two years or a single penny in $10,000.

TURBIDITY

Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	Major Sources in Drinking Water
Turbidity (Dardanelle)	N	Highest yearly sample result: 0.181 Lowest monthly % of samples meeting the turbidity limit: 100%	NTU	NA	Any measurement in excess of 1 NTU constitutes a violation	Soil runoff
Turbidity (Danville – both WTP)	N	Highest yearly sample result: 0.82 Lowest monthly % of samples meeting the turbidity limit: 90.6%				
Turbidity (City Corp.)	N	Highest yearly sample result: 0.178 Lowest monthly % of samples meeting the turbidity limit: 100%			A value less than 95% of samples meeting the limit of 0.3 NTU, constitutes a violation	
Turbidity (Atkins)	N	Highest yearly sample result: 0.52 Lowest monthly % of samples meeting the turbidity limit: 98.81%				

♦ Turbidity is a measurement of the cloudiness of water. Danville, City Corporation, Atkins and Dardanelle monitor it because it is a good indicator of the effectiveness of their filtration systems.

VOLATILE ORGANIC CONTAMINANTS

Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	Major Sources in Drinking Water
Toluene (Dardanelle)	N	0.5223	ppm	1	1	Discharge from petroleum factories

INORGANIC CONTAMINANTS

Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	Major Sources in Drinking Water
Fluoride (Dardanelle)	N	Average: 0.71 Range: 0.49 – 0.91	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth
Fluoride (City Corp.)	N	Average: 0.85 Range: 0.7 – 0.93				
Fluoride (Atkins)	N	Average: 0.78 Range: 0.69 – 0.91				
Fluoride (Tri-County)	N	Average: 0.66 Range: 0.61 – 0.71				
Fluoride (Danville – both WTP)	N	Average: 0.60 Range: 0 – 0.76				
Nitrate [as Nitrogen] (Dardanelle)	N	Average: 1.3 Range: 0.78 – 1.6	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate [as Nitrogen] (City Corp.)	N	0.27				
Nitrate [as Nitrogen] (Atkins)	N	Average: 0.36 Range: 0 – 0.72				
Nitrate [as Nitrogen] (Danville- combined)	N	Average: 0.21 Range: 0 – 0.42				
Nitrate [as Nitrogen] (Tri-County)	N	Average: 0.03 Range: 0 – 0.12				

LEAD AND COPPER TAP MONITORING

Contaminant	Number of Sites over Action Level	90th Percentile Result	Unit	Action Level	Major Sources in Drinking Water
Lead (NE Yell Co Water Assn)	0	<0.003	ppm	0.015	Corrosion from household plumbing systems; erosion of natural deposits
Copper (NE Yell Co Water Assn)	0	0.102	ppm	1.3	

♦ We are currently on a reduced monitoring schedule and required to sample once every three years for lead and copper at the customers' taps. The results above are from our last monitoring period in 2018. Our next required monitoring period is in 2021.

TOTAL ORGANIC CARBON

♦ The percentage of Total Organic Carbon (TOC) removal was routinely monitored by our suppliers in 2019, and all TOC removal requirements set by USEPA were met. TOC has no health effects. However, Total Organic Carbon provides a medium for the formation of disinfection by-products. These by-products include trihalomethanes (THMs) and haloacetic acids (HAAs).

REGULATED DISINFECTANTS						
Disinfectant	**Violation Y/N**	**Level Detected**	**Unit**	**MRDLG** (Public Health Goal)	**MRDL** (Allowable Level)	**Major Sources in Drinking Water**
Chlorine (NE Yell Co Water Assn)	N	Average: 0.75 Range: 0.04 – 1.6	ppm	4	4	Water additive used to control microbes

BY-PRODUCTS OF DRINKING WATER DISINFECTION					
Contaminant	**Violation Y/N**	**Level Detected**	**Unit**	**MCLG** (Public Health Goal)	**MCL** (Allowable Level)
HAA5 [Haloacetic Acids] (NE Yell Co Water Assn)	N	Highest Running 12 Month Average: 26 Range: 7.6 – 48.4	ppb	0	60
TTHM [Total Trihalomethanes] (NE Yell Co Water Assn)	N	Highest Running 12 Month Average: 67 Range: 29.7 - **123**	ppb	NA	**80**

- While only the upper end of the TTHM range exceeded the MCL, it should be noted that 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.

UNREGULATED CONTAMINANTS				
Contaminant	**Level Detected**	**Unit**	**MCLG**	**Major Sources in Drinking Water**
Chloroform (Dardanelle Water Dept.)	19.4	ppb	70	By-product of drinking water disinfection
Chloroform (Danville Water Dept.-both sources)	Average: 19.1 Range:11.7 – 26.5			
Chloroform (City Corp.)	38.8			
Chloroform (Atkins)	20.4			
Chloroform (Tri-County)	12.5			
Bromodichloromethane (Dardanelle Water Dept.)	17.3	ppb	0	
Bromodichloromethane (Danville Water Dept.-both sources)	Average: 5.6 Range: 2.43 – 8.8			
Bromodichloromethane (City Corp.)	3.48			
Bromodichloromethane (Atkins)	3.71			
Bromodichloromethane (Tri-County)	4.0			
Dibromochloromethane (Dardanelle Water Dept.)	11.8	ppb	60	
Dibromochloromethane (Tri-County)	0.84			
Dibromochloromethane (Danville Water Dept- Dale Scott)	1.58			
Bromoform (Dardanelle Water Dept.)	1.72	ppb	0	

- 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. MCLs (Maximum Contaminant Levels) and MCLGs (Maximum Contaminant Level Goals) have not been established for all unregulated contaminants.

UNREGULATED CONTAMINANTS
(Unregulated Contaminant Monitoring Rule 4)

Metals

Contaminant	**Level Detected**	**Unit**	**Major Sources in Drinking Water**
Manganese (UCMR4) (City Corp)	Average: 1.26 Range: 0.71 – 1.8	ppb	Naturally occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical; essential nutrient.
Manganese (UCMR4) (Tri-County)	Average: 7.25 Range: 1 – 13.5		

HAA Groups

Contaminant	**Level Detected**	**Unit**	**Major Sources in Drinking Water**
HAA5 (UCMR4) (City Corp)	Average: 48.02 Range: 34.4 – 74.8	ppb	By-product of drinking water disinfection
HAA5 (UCMR4) (Tri-County)	Average: 34.82 Range: 10.3 – 50.3		
HAA6Br (UCMR4) (City Corp)	Average: 2.57 Range: 1.9 – 3.8	ppb	
HAA6Br (UCMR4) (Tri-County)	Average: 3.31 Range: 2.3 – 4.3		
HAA9 (UCMR4) (City Corp)	Average: 50.59 Range: 36.3 – 78.6	ppb	
HAA9 (UCMR4) (Tri-County)	Average: 37.98 Range: 12.3 – 54.3		

- The Objective of the UCMR program is to collect national occurrence data for suspected drinking water contaminants that do not have health-based standards set under the Safe Drinking Water Act. Drinking water occurrence information is used to support future regulatory actions to protect public health. The public will benefit from information about whether or not unregulated contaminants are present in their drinking water.

VIOLATIONS – North East Yell County Water Association			
TYPE: Bacteriological Monitoring	**FROM:**	**TO:**	**CORRECTIVE ACTION:**
Failed to routinely monitor for coliform bacteria, as specified in the RTCR	2/1/2019	3/31/2019	Resumed submission of the sampling report as required by state and federal regulations

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