Annual Drinking Water Quality Report
Riverdale, North Dakota
2023

We're very pleased to provide you with this year's Annual Drinking Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is to provide you with a safe and dependable supply of drinking water. Our water source is surface water from Lake Sakakawea. Riverdale treats the water by membrane filtration. Chlorine is used for disinfection.

The North Dakota Department of Health has prepared a Source Water Assessment for Riverdale. Information on this program is available at the Auditors office.

Our public water system, in cooperation with the North Dakota Department of Health, has completed the delineation and contaminant/land use inventory elements of the North Dakota Source Water Protection Program. Based on the information from these elements, The North Dakota Department of Health has determined that our source water is moderately susceptible to potential contaminants. No significant sources of contamination have been identified.

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Clay Kruger, Water Superintendent, at 701-654-7636. 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 2nd Monday of every month in the Riverdale City Hall, starting at 7:00 PM. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Clay at the number listed above.

The City of Riverdale would appreciate it if large volume water customers would please post copies of this Annual Drinking Water Quality Report in conspicuous locations or distribute them to tenants, residents, patients, students, and/or employees, so individuals who consume the water, but do not receive a water bill can learn about our water system.

The City of Riverdale routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, 2023. As authorized and approved by EPA, the state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data, though representative, is more than one year old.

Other requirements which a water system must follow.

Action Level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is 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 - The "Goal" (MCLG) is 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.

Highest Compliance Level: The highest level of that contaminant used to determine compliance with a National Primacy Drinking Water Regulation.

Range of Detections: The lowest to the highest result value recorded during the required monitoring timeframe for systems with multiple entry points.

Abbreviations:

Not Applicable (NA)
Part per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.
Parts per billion (ppb) or Micrograms per liter (µg/l)- one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Nephelometric Turbidity Unit (ntu) - *

*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. The lowest monthly percentage of samples
meeting turbidity limits was 100%. The highest single turbidity measurement of 0.03 NTU was measured during the year.

TEST RESULTS for RIVERDALE								
	MCLG	**MCL**	**Level Detected**	**Unit Measurement**	**Range**	**Date (year)**	**Violation Yes/No Other Info**	**Likely Source of Contamination**
Lead/Copper								
Copper Number of samples=6	1.3	AL=1.3	0.4 90th % Value	ppm	N/A	8/16/2022	0 Sites exceeded AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead Number of samples=6	15	AL=15	1.33 90th % Value	ppb	N/A	8/16/2022	0 Sites exceeded AL	Corrosion of household plumbing systems, erosion of natural deposits
Disinfectants								
Chloramine	MRDL =4.0	MRDL =4	2.7	ppm	2.5 to 2.9	10/31/2023	No	Water additive used to control microbes.
Turbidity								
Turbidity	N/A	TT	.03 *	NTU	0.0 to .15	2023	No	Clarity of water
Stage 2 Disinfection Byproducts								
HAA5		60	27	ppb	N/A	12/31/2023	No	Byproduct of chlorine disinfection
TTHM		80	45	ppb	N/A	12/31/2023	No	Byproduct of chlorine disinfection
Inorganic Contaminants								
Nitrate-Nitrite	10	10	0.125	ppm	N/A	4/10/2023	No	Naturally occurring ions that are part of the nitrogen cycle

Total Organic Carbon Removal								
Alkalinity-Source			177	MG/L	145.00 to	3/31/2023	No	Measure of water to Neutralize acidity.

					177.00			
Carbon, Total Organic (TOC)-Finished			3.25	MG/L	2.62 to 3.25	12/31 2023	No	Organic pollution of water after treatment
Carbon, Total Organic (TOC)-Source			3.66	MG/L	2.83 to 3.66	3/31 2023	No	Organic pollution of water before treatment

Unregulated Contaminants								
Bicarbonate as HCO3			216	ppm	176-216	12/11 /2023	No	Polyatomic Ion
Alkalinity, Carbonate			3	ppm	ND-3	12/11 2023	No	**Carbonate** and Bicarbonate anions in a solution
PH			8.03	PH	0-14	9/6/ 2023	No	**PH, quantitative measure of the acidity or basicity of aqueous or other liquid solutions.**

EPA requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the table above are the only contaminants detected in your 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791].

The sources of drinking water (both tap 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:

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

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 and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

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. The City of Riverdale is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. **Use water from the cold tap for drinking and cooking. 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 drinking 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 form the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The City of Riverdale works diligently to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.