2023

Annual DRINKING WATER QUALITY REPORT

NORTHEAST REGIONAL WATER DISTRICT

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We're pleased to present to you the 2023 ***Annual Drinking Water Quality Report***. This report is designed to inform you about the safe, clean water we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Northeast Regional Water District (NRWD) purchases its water from the city of Devils Lake water treatment plant and also supplies approximately 60.69 percent from the NRWD's groundwater source in the Icelandic Aquifer west of Cavalier.

The North Dakota Department of Health has prepared a Source Water Assessment for the city of Devils Lake and NRWD. This information will be made available at the respective offices during normal business hours. The city of Devils Lake and NRWD participate in the wellhead protection program, and copies of the wellhead protection plan are available from the city of Devils Lake and NRWD offices during normal business hours. Information of Devils Lake Source Water Assessment can be obtained from the city of Devils Lake, contact Joel Myhro, public works superintendent. 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 Devils Lake's groundwater source from the Spiritwood Aquifer near Tolna is "moderately susceptible" to potential contaminants and the Icelandic Aquifer west of Cavalier groundwater source is "susceptible" to potential contaminants.

However, NRWD's board of directors has taken an aggressive position toward protecting the quality of the water source in the Icelandic Aquifer, particularly because of the fragile, leachable sands in this area. Within recent years, the district has purchased approximately 1,800 acres of land to establish a wellhead protection area around the production wells. Much research had been done to determine groundwater movement, annual recharge over the well field, and generally restricting the land to only "water-friendly" uses. In addition, restricted covenants with some area landowners have been entered into, whereas, those landowners agree to only "water-friendly" land use practices. The boundaries of the land purchased were determined on the basis of direction of groundwater movement and the zone of influence of each production well.

Northeast Regional Water District is pleased to report that our drinking water is safe and meets federal and state requirements.

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 Jeremy Schuler, Manager, at 701-265-8503. 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 last Thursday of each month at 8 a.m. at the Northeast Rural Water District Langdon Branch or Cavalier Branch office. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Jeremy at the number listed above.

Northeast Regional Water District would appreciate it if large volume water customers would please post copies of the ***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.

Northeast Regional Water District 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 31, 2023. As authorized and approved by the Environmental Protection Agency (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 [e.g., for inorganic contaminants], though representative, is more than one year old.

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 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, industrial or domestic wastewater discharges, oil production, mining, or farming.

Pesticides and herbicides, which 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 byproducts 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, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

In the tables on pages 3 thru 5 you will find many terms and abbreviations with which you might not be familiar with. To help you better understand these terms, we've provided the following definitions:

Not Applicable (N/A)

Parts 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 million.

Picocuries per liter (pCi/l) - picocuries per liter is a measure of the radioactivity in water.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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 (MCL) - 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 (MCLG) - 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.

2023 TEST RESULTS FOR THE CITY OF DEVILS LAKE

Contaminant	MCL	MCLG	Level Detected	Unit Measurement	Range	Date (year)	Violation Yes/No Other Info	Likely Source of Contamination
Inorganic Contaminants								
1. Nitrate-Nitrite	10	10	1.19	ppm	1.18 to 1.19	2023	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
2. Barium	2	2	0.0409	ppm	N/A	2017	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
3. Fluoride	4	4	0.809	ppm	N/A	2017	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
4. Arsenic	10	0	4.29	ppb	N/A	2021	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production waste
Stage 2 Disinfection By-products								
5. Total Haloacetic Acids (HAA5)	60	System-wide	9	ppb	N/A	2023		By-product of drinking water chlorination
6. Total Trihalomethanes (TTHM)	80	System-wide	28	ppb	N/A	2023		By-product of drinking water chlorination
Synthetic Organic Contaminants including Pesticides & Herbicides								
7. Pentachlorophenol	1	0	0.03	ppb	N/A	2017		
Copper/Lead	**Samples**	**Action Level**						
8. Copper	22	AL=1.3	0.615 90th % value	ppm	N/A	2021	0 Samples exceeded the AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
9. Lead	22	AL=15	6.76 90th % value	ppb	N/A	2021	2 Samples exceeded the AL	Corrosion of household plumbing systems; erosion of natural deposits
Disinfectants								
10. Chlorine	MRDL =4.0	MRDLG =4	.4	ppm	0.29 to .55	2023	No	Water additive used to control microbes
Radioactive By-products								
11. Gross Alpha, including RA, excluding RN & U	15	15	ND	pCi/L	N/A	2017	No	Erosion of natural deposits
12. Radium, combined (226, 228)	5		0.29	pCi/L	N/A	2017	No	Erosion of natural deposits
13. Uranium, combined	30		1.26	ppb	N/A	2017	No	Erosion of natural deposits

2023 TEST RESULTS FOR NORTHEAST REGIONAL WATER DISTRICT – NORTH VALLEY BRANCH

Contaminant	MCL	MCLG	Level Detected	Unit Measurement	Range	Date (year)	Violation Yes/No Other Info	Likely Source of Contamination
Inorganic Contaminants								
1. Fluoride	4	4	0.635	ppm	N/A	2017	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
2. Barium	2	2	0.184	ppm	N/A	2017	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
3. Nitrate-Nitrite	10	10	None Detected	ppm	N/A	2023	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Disinfectants								
4. Chlorine	MRDLG =4	MRDL =4.0	1.2	ppm	.7625 to 1.648	2023	No	Water additive used to control microbes
Radioactive By-products								
5. Gross Alpha, including RA, excluding RN & U	15	15	ND	pCi/L	N/A	2022	No	Erosion of natural deposits
6. Radium, combined (226, 228)	5		0.02851	pCi/L	N/A	2022	No	Erosion of natural deposits
7. Uranium, combined	30		1.00	ppb	N/A	2022	No	Erosion of natural deposits
Copper/Lead								
8. Copper	20	AL=1.3	0.45 90th % value	ppm	N/A	2022	**No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
9. Lead	20	AL=15	1.46	ppb	N/A	2022	**No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Stage 2 Disinfection By-products (TTHM/HAA5)								
10. Total Trihalomethanes (TTHM)	System-wide	80	14	ppb	N/A	2023	*No	By-product of drinking water chlorination
11. Total Haloacetic Acids (HAA5)	System-wide	60	6	ppb	N/A	2023	*No	By-product of drinking water chlorination
Unregulated Contaminants								
12. Manganese			0.028	ppm	N/A	2017		

**No sites exceeded the copper or lead action level in 2022.

2023 TEST RESULTS FOR NORTHEAST REGIONAL WATER DISTRICT – LANGDON BRANCH

Contaminant	MCL	MCLG	Level Detected	Unit Measurement	Range	Date (year)	Violation Yes/No Other Info	Likely Source of Contamination
Copper/Lead	**Samples**	**Action Level**						
1. Copper	10	AL=1.3	0.268 90th % Value	ppm	N/A	2023	*No ** Yes	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
2. Lead	10	AL=15	1.44	ppb	N/A	2023	*No ** Yes	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Stage 2 Disinfection By-products								
3. Total Trihalomethanes (TTHM)	System - wide	80	60	ppb	35.27 to 60.29	2023	No	By-product of drinking water chlorination
4. Total Haloacetic Acids (HAA5)	System - wide	60	23	ppb	15.64 to 23.35	2023	No	By-product of drinking water chlorination
Disinfectants								
5. Chlorine	MRDL =4.0	MRDLG =4	.8	ppm	0.45 to 1.065	2023	No	Water additive used to control microbes

*No sites exceeded the copper action level in 2023. ** Lead/Cooper Consumer Notice with results was mailed to consumers that tested, but paperwork was not provided to the N.D. Department of Environmental Quality by the due date.

EPA requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the tables above are the only contaminants detected in your drinking water.

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Once every five years EPA issues a list of unregulated contaminants to be monitored by public water systems. The Northeast Regional Water District – North Valley Branch was selected by EPA to sample for thirty (30) unregulated contaminants during 2023. Samples were collected two times at the entry point in the distribution system, as required.

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminants monitoring is to assist EPA in determining the occurrence of unregulated contaminants in the drinking water and whether future regulation is warranted. Should you have any questions, please contact our office. None of the 30 contaminants included in this round of sampling were detected.

Your water system monitors for a number of unregulated organic contaminants, which could indicate a contamination of the water supply from a pesticide or petroleum spill or leak.

We're proud that your drinking water meets or exceeds all federal and state requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water **IS SAFE** at these levels.

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 EPA's Safe Drinking Water Hotline (800-426-4791).

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink two liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Nitrates: As a precaution, we notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply.

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 (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Northeast Regional Water District 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 two 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 from the Safe Drinking Water Hotline or at *www.epa.gov/safewater/lead*.

Tampering with a public water system is a federal offense. Report suspicious activity to local law enforcement immediately.

Please call Jeremy Schuler, Manager, Northeast Regional Water District, at 701-265-8503 if you have questions concerning your water system.

Northeast Regional Water District 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. Northeast Regional Water District is an equal opportunity employer.

NRWD
Northeast Regional Water District

WATER OPERATORS

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