

2024

ANNUAL DRINKING WATER QUALITY REPORT



ALL SEASONS WATER USERS DISTRICT

1066 Highway 5 NE • Bottineau, ND 58318 • Ph: 701-228-3663 • Fax: 701-228-6903

We're pleased to present to you this year's **Annual Drinking Water Quality Report**. This report is designed to inform you about the safe, clean water that 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

All Seasons Water Users District water sources are:

- For System I, our water source is two wells that are located west of Bottineau in an undifferentiated glacial drift aquifer. The water is pumped from the wells to an iron and manganese removal treatment plant located northwest of Bottineau. Polyphosphates are added to reduce lead and copper levels in the private homes, chlorine is then added for disinfection.
- For System III, we purchase our water from NAWS (Northwest Area Water Supply), which currently purchases the water from the City of Minot. The water is treated groundwater taken from wells consisting of two sources: The Sundre Aquifer and the Minot Aquifer. The processing of the water from Minot's water treatment plant is accomplished by a lime softening and filtering process.
- For System IV, our water source is five wells in the Shell Valley aquifer. The water is pumped from the wells to an iron and manganese removal treatment plant located north of Rolette. Phosphates and polyphosphates are added to reduce lead and copper levels in private homes; chlorine is then added for disinfection.
- For System V, we purchase our water from the **City of Rugby**, which is treated ground water taken from wells in the Pleasant Lake Aquifer, located approximately eight miles East of the City of Rugby and the Rugby Aquifer, located approximately four miles East of the City of Rugby, and is delivered through a pipeline to the Rugby Water Treatment Plant located at 211 - 4th Ave. NW. The processing of the water from the Water Treatment Plant is accomplished by a lime softening and filtering process that treats 1,250 gallons a minute.

The **City of Rugby** has instituted a well head protection plan for the area around the Pleasant Lake Aquifer well site, within the limitations of the law and property rights. The **City of Rugby** has eight wells. These wells are located outside the jurisdictional limits of the city and cannot be protected in the same manner as if they were located within the City Limits.

The areas surrounding the well sites are farming interests. Landowners that surround the well sites have been contacted in an effort to reduce the possibilities of contamination of the ground water aquifers. Further efforts to help alleviate the threats to ground water contamination are continuing, by meeting with these people and helping, when possible, with problems that may appear.

Land that the **City of Rugby** does control surrounding the wells is fenced and access is controlled by locked gates that only City employees have keys for. The well houses have locks that are secured at all times. Oil, gas, and other fuel leaks are prevented by periodic checks and the restricted access to the grounds. Chemical spraying of the area is not allowed because of the ongoing testing of biological control measures.

All Seasons Water Users is participating in the North Dakota Wellhead Protection Program. The North Dakota Dept. of Health has completed a source water assessment for All Seasons Water Users and has determined that based on the information from delineation of wellhead protection areas and potential contaminant/land use inventories, our water source has been determined to be not likely susceptible to potential contaminants. Information on these programs is available to the public at the All Seasons Water Users District office.

Dan Schaefer, Manager of All Seasons Water Users, 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 Dan Schaefer at 228-3663. 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 Monday of the month, 7:30 P.M. at the All Seasons Water office on Hwy. 5, west of Bottineau. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Dan Schaefer at the number listed above.

All Seasons Water Users would appreciate it if large volume water customers 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.

All Seasons Water Users 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 1 to December 31, 2024. 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 [e.g., for inorganic contaminants], though representative, is more than one year old.

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. A copy of the Source Water Assessment Report is available for review in the office of All Seasons Water Users District.

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 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, the Environmental Protection Agency (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.

There is no safe level of lead in drinking water. Exposure to lead in drinking water can cause serious health effects in all age groups, especially pregnant people, infants (both formula-fed and breastfed), and young children. Some of the health effects in infants and children include decreases in IQ and attention span. Lead exposure can also result in new or worsened learning and behavioral problems. The children of persons who are exposed to lead before or during pregnancy may be at increased risk of these harmful health effects. Adults have increased risks of heart disease, high blood pressure, kidney or nervous system problems. Contact your health care provider for more information about your risks.

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. All Seasons Water Users District is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing of our home.

Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly.

Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. IF you are concerned about lead in your water and wish to have your water tested, contact All Seasons Water Users District at 701-228-3663. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

(MCLG) Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

(MCL) Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

(MRDLG) Maximum Residual Disinfectant 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) 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.

Highest Compliance Level: The highest level of that contaminant used to determine compliance with a National Primary 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: ppb – parts per billion or micrograms per liter; ppm – parts per million or milligrams per liter; ppt – parts per trillion or nanograms per liter; ppq – parts per quadrillion or picograms per liter; N/A – not applicable; ND – none detected; pCi/L – picocuries per liter (a measure of radioactivity), umho/cm – micromhos per centimeter (a measure of conductivity); obsvns – observations/field at 100 Power; IDSE – Initial Distribution System Evaluation.

2024 TEST RESULTS - SYSTEM I

Contaminant	Violation Yes/No	Highest Compliance Level	Range Of Detection	Date (Year)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants								
1. Copper*	No	1.21 90th%	0.135 to 1.720	2024	ppm	1.3	AL=1.3	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
2. Lead**	No	1.05 90th%	ND to 1.71	2024	ppb	15	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
3. Barium	No	0.15	N/A	2017	ppm	2	2	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits
4. Chromium	No	3.93	N/A	2017	ppb	100	100	Discharge from steel and pulp mills, erosion of natural deposits
5. Flouride	No	0.123	N/A	2017	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer or aluminum factories
6 Nitrate-Nitrate	No	0.164	N/A	2024	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion from natural deposits
Disinfection By-products								
7. Haloacetic Acids(HAA5)	No	6	5.19 to 6.13	2024	ppb		60	By-product of drinking water disinfection
8. Trihalo- methanes (TTHM)	No	12	8.48 to 11.65	2024	ppb		80	By-product of drinking water chlorination
Disinfectants								
9. Chloramine	No	1.7	0.22 to 3.4	2024	ppm	MRDLG =4	MRDL =4.0	Water additive used to control microbes
Radioactive Contaminants								
10. Gross Alpha, including RA, excluding RN & U	No	ND	N/A	2019	pCi/l	15	15	Erosion of natural deposits
11. Uranium, Combined	No	7	N/A	2019	ppb		30	Erosion of natural deposits
Unregulated Contaminants								
12. Alkalinity, Total	No	571	545-571	2021	ppm			
13. Bicarbonate as HC03	No	697	665-697	2021	ppm			
14. Calcium	No	91.3	78.3-91.3	2021	ppm			
15. Conductivity @ 25 C UMHOS/CM	No	1330	1220-1330	2021	umho/cm			
16. Harndess,Total (ASCOC03)	No	316	N/A	2017	ppm			
17. Manganese	No	0.035	N/A	2017	ppm			
18. Orthophosphate	No	0.757	0.447-0.757	2021	ppm			
19. PH	No	8.21	7.93-8.21	2021	PH			
20. TDS	No	825	756-825	2021	ppm			
Bacteriological Monitoring Data – RTCR								
Total Coliform Data	Total Coliform Data:November had the highest number of Total Coliform Samples. Total Coliform Positives for that Month: 2							
Assessment Data – RTCR								
Type	Date	Reason						
Level 1	11-26 2024	Multiple Total Coliform Positive Samples						

* One sample exceeded the copper action level in 2024.

** No sites exceeded the lead action level in 2024.

2024 TEST RESULTS - SYSTEM III

Contaminant	Violation Yes/No	Highest Compliance Level	Range	Date (Year)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants								
1. Copper*	No	0.0748 90th%	ND to 0.292	2024	ppm	1.3	AL=1.3	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
2. Lead**	No	5.51 90th%	ND to 13.20	2024	ppb	15	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
3. Nitrate-Nitrite	No	0.148	N/A	2024	ppm	10	10	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
4. Arsenic	No	1.74	N/A	2016	ppb	0	10	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production waste
5. Barium	No	0.00433	N/A	2016	ppm	2	2	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits
6. Flouride	No	0.70	N/A	2024	ppm	4	4	Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer or aluminum factories
7. Selenium	No	1.65	N/A	2016	ppb	50	50	Discharge from petroleum and metal refineries, erosion of natural deposits, discharge from mines
8. Chromium	No	1.37	N/A	2016	ppb	100	100	Discharge from steel and pulp mills, erosion of natural deposits
Disinfectants								
9. Chloramine	No	2.4	1.6 to 2.5	2024	ppm	MRDLG =4	MRDL =4	Water additive used to control microbes
Disinfection By-products								
10. HAA5	No	35	7.62 to 35.36	2024	ppb		60	Water additive used to control microbes
11. TTHM	No	44	40.3 to 44.07	2024	ppb		80	Water additive used to control microbes
Bacteriological Monitoring Data – RTCR								
12. Total Coliform Data:	August had the highest number of Total Coliform Samples. Total Coliform Positives for that Month: 1							

* One sample exceeded the copper action level in 2024.

** No sites exceeded the lead action level in 2024.

The water we provide is treated with fluoride addition as part of the water treatment process to enhance dental health. For information regarding the level of fluoride in the finished water provided to our consumers, please contact our office at 701-228-3663.

2024 TEST RESULTS - SYSTEM IV

Contaminant	Violation Yes/No	Highest Compliance Level	Range	Date (Year)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Disinfectants								
1. Chlorine	No	1.8	0.5 to 4	2024	ppm	4	4	By-product of drinking water disinfection
Inorganic Contaminants								
2. Copper	No*	1.1 90th%	0.0392 to 1.240	2023	ppm		AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
3. Lead	No**	1.51 90th%	ND to 3.15	2023	ppb		AL=15	Corrosion of household plumbing systems, erosion of natural deposits

2024 TEST RESULTS - SYSTEM IV								
Contaminant	Violation Yes/No	Highest Compliance Level	Range	Date (Year)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
4. Nitrate - Nitrite	No	2.55	N/A	2024	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposit
5. Arsenic	No	1.39	N/A	2016	ppb	0	10	Erosion of natural deposits. Runoff from orchards; runoff from glass and electronics production wastes.
Erosion of natural deposits	No	0.0594	N/A	2017	ppm	2	2	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits
7. Chromium	No	2.48	N/A	2017	ppb	100	100	Discharge from steel and pulp mills; Erosion of natural deposits.
8. Flouride	No	0.136	N/A	2017	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Stage 2 Disinfection By-products (TTHM/HAA5)								
9. HAA5	No	7	N/A	2024	pCi/l		60	By-product of drinking water disinfection.
10. TTHM	No	20	N/A	2024	pCi/l		80	By-product of drinking water disinfection.
11.Gross Alpha, Inclndg RA, Exclndg RN & U	No	2.5	N/A	2022	pCi/l	15	15	Erosion of natural deposits.
12. Radium, Combined (226,228)	No	ND	N/A	2022	pCi/l		5	Erosion of natural deposits.
13. Uranium, Combined	No	0.4	N/A	2022	Ppb		30	Erosion of natural deposits.

* No sites exceeded the copper action level in 2023.

** No sites exceeded the lead action level in 2023.

2023 TEST RESULTS - SYSTEM V								
Contaminant	Violation Yes/No	Highest Compliance Level	Range	Date (Year)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants								
1. Nitrate-Nitrite	No	0.15	N/A	2024	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
2. Copper	No *	0.108 90th%	ND to 0.706	2023	ppm		AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
3. Lead	No**	ND	ND to ND	2023	ppb		AL=15	Corrosion of household plumbing systems, erosion of natural deposits
4. Arsenic	No	3.46		2016	ppb			Erosion of natural deposits. Runoff from orchards; runoff from glass and electronics production wastes.
5. Barium	No	0.00874	N/A	2017	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
6. Chromium	No	1.87	N/A	2017	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
7. Flouride	No	0.756	N/A	2017	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

2023 TEST RESULTS - SYSTEM V

Contaminant	Violation Yes/No	Highest Compliance Level	Range	Date (Year)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants								
8. Gross Alpha, Inclndg RA, Exclndg RN & U	No	4.14	N/A	2017	pCi/l	15	15	Erosion of natural deposits
9. Radium, Combined (226,228)	No	ND	-0.19 to 0	2017	pCi/l		5	Erosion of natural deposits
10. Uranium	No	1.85	N/A	2017	ppb		30	Erosion of natural deposits
Disinfection By-products								
11. Haloacetic Acids (HAA5)	No	13	9.26 to 13.26	2024	ppb		60	By-product of drinking water disinfection
12. Trihalo- methanes (TTHM)	No	58	44.25 to 58.19	2024	ppb		80	By-product of drinking water chlorination
Disinfectants								
13. Chlorine	No	2.6	0.81 to 4.5	2024	ppm	MRDLG = 4	MRDL = 4	Water additive used to control microbes
Unregulated Contaminants								
14. Alkalinity, Carbonate	No	16	2-16	2017	ppm			
15. Alkalinity, Total	No	137	123-137	2017	ppm			
16. Bicarbonate as HC03	No	146	135-146	2017	ppm			
17. Calcium	No	19.2	16.9-19.2	2017	ppm			
18. Chloride	No	10.8	N/A	2017	ppm			
19. Conductivity @ 25 C UMHOS/CM	No	406	376-406	2017	umho/cm			
20. Hardness, Total (AS CAC03)	No	105	104-105	2017	ppm			
21. Magnesium	No	15.2	13.5-15.2	2017	ppm			
22. Manganese	No	0.012	ND - 0.012	2017	ppm			

* No sites exceeded the copper action level in 2023.

** No sites exceeded the lead action level in 2023.

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.

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.

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.

Our system is required to monitor for coliform bacteria in our drinking water. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in the water treatment or distribution system. When this occurs, we are required to conduct assessments to identify problems and to correct any problems found during these assessments. A Level 1 assessment study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our system. During the past year, we were required to conduct one Level 1 assessment. One Level 1 assessment was completed. The Level 1 Assessment was triggered when one sample taken 11-6-2024 and one sample taken 11-12-2024 tested positive for total coliform bacteria. The assessment was completed on 11-29-2024. Corrective Action: No sanitary defects were found.

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).

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 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.

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).

USEPA has recently published the Lead and Copper Rule Revision. The purpose of this revision is to strengthen public health protections by removing lead service lines within public water systems. One requirement of this rule revision was to inventory all drinking water service lines within our public water system and notify consumers which type of line serves each property. You may have recently received a letter from our system with this information.

The inventory is a listing of all service lines and the material composition of each line. The types of lines being documented are Lead lines, Galvanized Requiring Replacement (GRR) and lines made of Unknown Material. Classification of a service line as being comprised of Unknown Service Line material indicates that our system cannot currently confirm the material of both the public and private portions of the line with written records. Non-lead lines were also documented; however, we were not required to notify consumers with documented nonlead lines. The classification of the type of service line serving a residence was based on historical data regarding the property and in some cases verification of the type of material on the privately owned side of the line by visual inspection or replacement records of the owner.

The current Service Line Inventory for our system has been completed and is available for viewing at our office. Please contact ALL SEASONS WATER USERS DISTRICT at 701-228-3663 should you have any questions.

Additional work to update the service line inventory, including inspection of the line, may need to be performed to further document and confirm the type of material making up both the public and private portions of the line serving your home or business. We will need the help of home/building owners in order to access the service line on the private side of the service line to positively identify the material of the line that carries water within your home/building. Our system may perform this work with our own system employees or we may contract with engineering firms or third party contractors to complete this work to improve our service line inventory.

Please call our office at (701) 228-3663 or 1(888) 647-4330, if you have any questions. All Seasons Water Users District works diligently around the clock 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.

"This is an Equal Opportunity Program. Discrimination is prohibited by Federal law. Complaints of discrimination may be filed with the Secretary of Agriculture, Washington, D.C. 20250."

USDA, RURAL DEVELOPMENT

