

Annual Drinking Water Quality Report Bowbells, North Dakota 2022

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 is purchased from Upper Souris Water Users Association, System I. The water is treated for iron and manganese removal and chlorination.

The City of Bowbells is participating in North Dakota's Wellhead Protection Program. Copies of the Wellhead Protection Program plan and other relevant information regarding this program can be obtained from the City Auditor during normal office hours. The North Dakota Department of Health has prepared a Source Water Assessment for Bowbells. Information on this program is available at the Auditor's office.

Our public water system, in cooperation with the North Dakota Department of Environmental Quality, 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 Environmental Quality has determined that our source water is "*not likely 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 **Dennis Benge**, Public Works Operator, at **701-377-2622**. 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 at the Bowbells City Hall, starting at 7:30 PM. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Dennis at the number listed above.

The City of Bowbells 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 Bowbells 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, 2022. 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.

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

Pesticides and herbicides, which come from a variety of sources such as agriculture, urban storm water 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 storm water runoff and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the number 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 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:

Not applicable (NA), No Detect (ND)

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 ($\mu\text{g/l}$) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/l) –Pico curies per liter is a measure of the radioactivity in water.

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.

2022 Test Results for the city of Bowbells, ND & Upper Souris WUA-System I

<u>Contaminant</u>	<u>MCLG</u>	<u>MCL</u>	<u>Level Detected</u>	<u>Unit</u>	<u>Range</u>	<u>Date (year)</u>	<u>Violation Yes/No Other Info</u>	<u>Likely Source of Contamination</u>
Disinfectants								
Chloramine	MRDLG=4	MRDL =4.0	0.4	ppm	0.05-0.95	2022	No	Water additive used to control microbes
Lead/Copper								
Copper**	1.3	AL=1.3	1.83 90 th % Value	ppm	N/A	2022	2 Sites exceeded AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead*	N/A	AL=15	4.63 90 th % Value	ppb	N/A	2022	1 Site exceeded AL	Corrosion of household plumbing systems, erosion of natural deposits
Stage 2 Disinfection Byproducts (TTHM/HAA5)								
HAA5	N/A	60	12	ppb	N/A	2022	No	By-product of drinking water disinfection
TTHM	N/A	80	22	ppb	N/A	2022	No	By-product of drinking water disinfection
Unregulated Contaminants								
Alkalinity, Total	N/A	N/A	959	ppm	937-959	2022	No	N/A
Alkalinity, Carbonate	N/A	N/A	9	ppm	ND-9	2022	No	N/A
Bicarbonate as HCO ₃	N/A	N/A	1170	ppm	1130-1170	2022	No	N/A
Calcium	N/A	N/A	17.6	ppm	16.1-17.6	2022	No	N/A
Conductivity @ 25 UMHOS/CM	N/A	N/A	2260	umho/cm	2220-2260	2022	No	N/A
Orthophosphate	N/A	N/A	1.28	ppm	1.01-1.28	2022	No	N/A
pH	N/A	N/A	8.36	pH	8.15-8.36	2022	No	N/A
TDS	N/A	N/A	1400	ppm	1380-1400	2022	No	N/A

2022 TEST RESULTS FOR Upper Souris WUA-System 1

<u>Contaminant</u>	<u>MCL</u>	<u>MC LG</u>	<u>Level Detected</u>	<u>Unit Measurement</u>	<u>Range</u>	<u>Date (year)</u>	<u>Violation Yes/No</u>	<u>Likely Source of Contamination</u>
Inorganic Contaminants								
Nitrate+Nitrite (As N)	10	10	No Detect	ppm	NA	2022	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Unregulated Contaminants								
Manganese	N/A	N/A	0.024	ppm	N/A	2016	No	N/A

** During the most recent Lead and Copper monitoring performed July -December 2022, two sites out of 10 exceeded the Copper Action Level of 1.3 ppm which resulted in a 90th %-ile value of 1.83 ppm. This value is above the 1.3 ppm Action Level for Copper.

During July -December 2022, one of ten samples taken throughout the system exceeded the Action Level of 15 ppb for lead. However, the 90th %-ile for the system was 4.63 ppm which is below the Lead AL of 15 ppb. The system is performing increased monitoring for lead and copper and is also performing water quality parameter sampling and monitoring for optimum corrosion control treatment which indicates the chemical characteristics of the water. Due to the system's 90th % ile Copper Action Level exceedance, the system is required to perform monitoring for lead and copper every six months. The next round of sampling will occur during Jan-June 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.

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)

*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 Bowbells 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 from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

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/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).

Please call our office at **701-377-2622** if you have questions.

The City of Bowbells 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.