Annual Drinking Water Quality Report
Upper Souris Water District-System I
2023

We are 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. Upper Souris Water District -System I, produced ground water and treated it at their own water treatment plant. Beginning in February, 2023 Upper Souris System I began receiving water from the city of Minot. Minot's water source is ground water and is treated using lime softening. Chloramines are added for disinfection.

Upper Souris Water District-System I 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 during normal office hours. The North Dakota Department of Environmental Quality has prepared a Source Water Assessment for the Upper Souris Water District-System I. Information on this program is available at the 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 Kristine Goettle at 701-385-4093. 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 3rd Wednesday of every month at 7:00 pm, at Upper Souris' office. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Kristine at the number listed above.

Upper Souris Water District – System I 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.

Upper Souris Water District -System I 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.

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.

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 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.
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Picocuries per liter (pCi/L) - Picocuries 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.
Obsvns-Field at 100 power.
IDSE-Initial distribution System Evaluation

2023 TEST RESULTS FOR Upper Souris Water District-System I and Minot

Contaminant	MCLG	MCL	Level Detected	Units	Range	Date (year)	Violation Yes/No Other Info	Likely Source of Contamination
Lead/Copper								
Copper	1.3	AL=1.3	0.42 90^{t} % Value	ppm	NA	2023	0 Sites Exceeded AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead**	0	AL=15	No Detect 90th % Value	ppb	NA	2023	0 Sites Exceeded AL	Corrosion of household plumbing systems, erosion of natural deposits
Disinfectants								
Chloramine	MRDLG =4	MRDL =4.0	2.8	ppm	2.45-2.75	2023	No	Water additive used to control microbes
Stage 2 Disinfection By-Products								
HAA5	NA	60	17	ppb	11.8-21.23	2023	No	By-product of drinking water chlorination
TTHM	NA	80	57	ppb	46.59-61.31	2023	No	By-product of drinking water chlorination

Inorganic Contaminants-Minot								
Nitrate-Nitrite (as Nitrogen)	10	10	0.041	ppm	NA	2023	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Unregulated Contaminants								
Alkalinity, Carbonate	NA	NA	16	ppm	7-16	2023	No	NA
Alkalinity, Total	NA	NA	130	ppm	99.2-130	2023	No	NA
Bicarbonate as HCO3	NA	NA	126	ppm	106-126	2023	No	NA
Calcium	NA	NA	47.6	ppm	33.8-47.6	2023	No	NA
Conductivity @ 25 UMHOS/CM	NA	NA	1460	umho/cm	1390-1460	2023	No	NA
Orthophosphate	NA	NA	0.088	ppm	0.035-0.088	2023	No	NA
PH	NA	NA	9	PH	8.67-9	2023	No	NA
TDS	NA	NA	905	Ppm	862-905	2023	No	NA

Bacteriological Monitoring Data: **Total Coli Form Data: August** had the highest number of Total Coli Form Samples. **Total Coli Form Positives for that month: (2)** Coli forms are bacteria that are naturally present in the environment and are used as an indicator that other potentially-harmful, bacteria may be present.

Violation: Lead/Copper Rule; Lead Consumer Notice: During Oct.-Nov. 2023 Upper Souris Water District-System I received a violation for failure to comply with the requirements of the Lead and Copper Rule. The Consumer Notice portion of the rule requires the system to notify the individual samplers of the level of lead in the samples that were taken and to certify the receipt back to the North Dakota Department of Environmental Quality. Upper Souris Water District-System I is taking steps to correct this violation by notifying samplers of the results of the samples taken and submitting the required certification form to the North Dakota Department of Environmental Quality, Drinking Water Program.

Public Water System (PWS) Number ND5101074

- Our system is required to monitor for total 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 water treatment or distribution. 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 is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water 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 8/07/2023 and another sample taken 8/09/2023 tested positive for total coliform bacteria. The assessment was completed on 8/15/2023.

Corrective Action: No sanitary defects were found.

The City of Minot was selected by EPA to sample for thirty (30) unregulated contaminants during 2023. Samples were taken two times from the entry point (EP) to the distribution system, as required.

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. Should you have any questions, please contact our office.

The following unregulated contaminants were the only contaminants detected during this sampling.

Unregulated Contaminant	Average value at EP sampling point (ug/L)
Lithium 64 Sample 1 78 Sample 2	71.0 (Range: 64.0 to 78.0)

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 water poses a health risk. More information about contaminants and potential effects can be obtained by calling the EPA's Safe Drinking Water Hotline (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 Upper Souris Water District- System I 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 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).

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