**Annual Drinking Water Quality Report**

#  City of Buffalo

**2024**

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 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. We purchase treated groundwater from Cass Rural Water Users, Inc. (Phase III).

Cass Rural Water District (Phase III) & the city of Buffalo are participating in North Dakota’s Wellhead Protection Program.This plan can be obtained from Cass Rural Water Users District office by calling 701-428-3139. The North Dakota Department of Environmental Quality has prepared a Source Water Assessment for the city of Buffalo and Cass Rural Water Users District (Phase III). Information regarding this program is available upon request.

Cass Rural Water Users District (Phase III), 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.

If you have any questions about this report or concerning your water utility, please contact Harmony Richman, auditor, at 701- 633-2356. 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 onthe second Monday of every month, unless otherwise published, beginning at 6:30 PM in the Community Center office.If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Harmony at the number listed above.

The City of Buffalo would appreciate it if large volume water customers would please post copies of the year's *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 Buffaloroutinely monitors for contaminants in your drinking water according to Federal and State laws. The table below shows the results of our monitoring for the period of January 1st to December 31st,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 organic or inorganic contaminants], though representative, is more than one year old.

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).

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 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 storm-water runoff, and residential uses. (Pesticide: Generally, any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest. Herbicide: Any chemical(s) used to control undesirable vegetation.)

*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.

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

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 the City of Buffalo and/or Moore Engineering 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 Requirement 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 customers with documented nonlead lines. The classification of the type of service line serving a residence was based on historical data regarding the property and some cases verification of the type of material on the privately owned side of the line by visual inspection or replacement of records of the owner.

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 you home/building. Our system may perform this work with our own employees or our contract with Moore Engineering, Inc. to complete this work to improve our service line inventory.

The current Service Line Inventory for our system has been completed by viewing at buffalond.com. Please contact the City Auditor should you have any questions.

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 behavior problems. The children of persons who are exposed to lead before or during pregnancy may be at an increased risk of these harmful health effects. Adults have an increased risk 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 all age groups, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and partes used in service lines and home plumbing. The City of Buffalo is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your 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 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 water from the cold tap for drinking and cooking, and making baby formula. Boiling water does not remove lead from water.** Before using your tap water for drinking, cooking, or making baby formula, flush you 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 City of Buffalo and Harmony Richman. Information on lead drinking water, testing methods, and steps you can take to minimize your exposure is available at http://www.epa.gov/safewater/lead.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level or over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson’s disease should consult their personal doctor.

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).

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.

**Violation:  For the 2th quarter of 2024, including the months April, May and June of 2024,** the City of Buffalo failed to comply with the reporting requirements of the Disinfectants and Disinfection By-products Rule.  This rule requires us to monitor monthly chlorine levels and report them to the Department of Environmental Quality on a quarterly basis.  Since the required samples were not taken or the report was not submitted on time, we are unsure of the level of disinfectant during that time.  Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose.  Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.  The City of Buffalo has taken steps to correct this violation of the Disinfectants and Disinfection By-products Rule by returning to a normal reporting schedule.

**Violation:  Revised Total Coliform Rule (RTCR) – Failure to Routine Monitor April 2024.** Our water system is required to sample for Total Coliform bacteria on a monthly basis.  We failed to collect the required number of total coliform samples during the month of April 2024 and are therefore unsure of the quality of the water at that time.  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.  The  City of Buffalo has taken steps to correct this violation of the Revised Total Coliform Rule by returning to a routine testing schedule.

In the table on page 4, 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:

*Non-Detects (ND)* - laboratory analysis indicates that the contaminant is not present.

*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* *(mg/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)* - 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.

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| **TEST RESULTS FOR CASS RURAL WATER DISTRICT – PHASE III** |
| **Contaminant** | **MCLG** | **MCL** | Level **Detected** | **Unit** | **Range** | **Date****(year)** | **Violation****Yes/No****Other Info** | **Likely Source of Contamination** |
| **Inorganic Contaminants** |
| Barium | 2 | 2 | 0.0377 | ppm | N/A | 2018 |  | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Chromium | 100 | 100 | 3.33 | ppb | N/A | 2018 |  | Discharge from steel and pulp mills; Erosion of natural deposits. |
| Fluoride | 4 | 4 | 0.846 | ppm | N/A | 2018 |  | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.  |
| **TEST RESULTS FOR THE CITY OF BUFFALO** |
| **Contaminant** | **MCLG** | **MCL** | Level **Detected** | **Unit****Measurement** | **Range** | **Date****(year)** | **Violation****Yes/No****Other Info** | **Likely Source of Contamination** |
| **Inorganic Contaminants** |
|  1. Copper | 1.3 | AL=1.3 | 0.64290th %Value | ppm | 0.0886-0.744 | 2023 | No | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
|  2. Lead | 0 | AL=15 | 1.4690th %Value | ppb | ND – 1.68 | 2023 | No | Corrosion of household plumbing systems, erosion of natural deposits |
| **Stage 2 Disinfection Byproducts** |
|  HAA5 | N/A | 60 | 9 | ppb | N/A | 2024 | No | By-product of drinking water disinfection. |
| TTHM | N/A | 80 | 13 | ppb | N/A | 2024 | No | By-product of drinking water disinfection. |
| **Disinfectants** |
| Chlorine | MRDL=4 | MRDLG=4 | 0.7 | ppm | 0 -0.97 | 2024 | No | Water additive used to controlMicrobes |

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.

MCL’s 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.

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

Please call our office at (701) 633-2356 if you have questions.

The City of Buffalo 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.