Missouri West Water System
*Quality on Tap Report*
2025

We are pleased to present to you this year's *Quality on Tap 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.

Our water sources are from the City of Mandan and Southwest Water Authority which provide treated surface water drawn from the Missouri River. Both use the following treatment processes: clarification, softening, filtration, fluoridation, and disinfection.

The North Dakota Department of Health has prepared a Source Water Assessment for both Mandan and Southwest Water's surface water intake. The North Dakota Water Assessment Program has classified both water systems as moderately susceptible. It should be noted that historically they have both effectively treated their source water to meet drinking water standards and the risk for potential contamination is low. A copy of the assessment report can be reviewed at each of the water treatment plants.

"I'm pleased to report that our drinking water is safe and meets federal and state requirements," said Karin Garvie, General Manager, Missouri West Water System. 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 Karin Garvie, General Manager, Missouri West Water System, at 701-663-8549. 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 being held on the last Wednesday of the month at 10:00 a.m., location 2816 37th Street NW, Mandan, ND. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Karin Garvie at the number listed above.

The Missouri West Water System would appreciate it if large volume water customers posted copies of this *Quality on Tap Report* in conspicuous locations or distributed 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.

Missouri West Water System routinely monitors 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, 2025. 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.

Drinking water, including bottled water, may reasonably be expected to contain at least some small amounts of 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).

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 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 stormwater 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.

To ensure that tap water is safe to drink, the EPA prescribes regulations which limit the number of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as people 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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

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

*(ppm) parts per million or (mg/l) milligrams per liter* - One part per million corresponds to one minute in two years or a single penny in $10,000.

*(ppb) parts per billion or (μg/l) micrograms per liter* - One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

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

*(NTU) Nephelometric Turbidity Unit* - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity more than 5 NTU is just noticeable to the average person.

*(AL) Action Level* - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

*(TT) Treatment Technique* - A treatment technique is a required process intended to reduce the level of contaminants in drinking water.

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

*(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.

*(MRDLG) Maximum Residual Disinfectant Level Goal* - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's 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 to a disinfectant is necessary for control of microbial contaminants.

**TEST RESULTS FOR THE MISSOURI WEST WATER SYSTEM**

| Contaminant | MCLG | MCL | Level Detected | Units | Range | Year | Violation Yes/No | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|---|
| **Inorganic Contaminants** | | | | | | | | |
| Copper* | 0 | AL=1.3 | 0.0632 90th% Value | ppm | ND to 0.133 | 2024 | 0 sites exceeded AL | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead* | 0 | AL=15 | 0.00 90th % Value | ppb | ND to 1.69 | 2024 | 0 Sites exceeded AL | Corrosion of household plumbing systems, erosion of natural deposits |
| **Disinfectants** | | | | | | | | |
| Chloramines | MRDLG =4 | MRDL =4.0 | 2.4 | ppm | 2.12 to 2.66 | 2025 | No | Water additive used to control microbes |
| **Stage 2 Disinfection Byproducts** | | | | | | | | |
| (HAA5) Total Haloacetic Acids | NA | 60 | 13 | ppb | 7.39 to 13.56 | 2025 | No | By-product of drinking water disinfection |
| TTHM (Total Trihalomethanes) | NA | 80 | 37 | ppb | 31.52 to 39.61 | 2025 | No | By-product of drinking water disinfection |

**Our suppliers, the City of Mandan and OMND began initial monitoring for eighteen Per- and polyfluoroalkyl substances (PFAS) in 2025 in preparation for the new PFAS rule that will take effect in 2029. One sample was collected at each Entry Point to the distribution system as required, to determine if PFAS is currently in our drinking water. None of the contaminants included in this round of sampling were detected. Should you have any questions, please contact our office.**

| TEST RESULTS FOR THE CITY OF MANDAN | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Contaminant** | **MCLG** | **MCL** | **Level Detected** | **Units** | **Range** | **Year** | **Violation Yes/No** | **Likely Source of Contamination** |
| **Total Organic Carbon Removal** | | | | | | | | |
| Alkalinity – Source | NA | NA | 167 | MG/L | 152.00 to 167.00 | 2025 | No | Natural erosion, certain plant activities, certain industrial wastewater discharges |
| Carbon, Total Organic (TOC) – Finished | NA | NA | 2.9 | MG/L | 2.20 to 2.90 | 2025 | No | Naturally present in the environment |
| Carbon, Total Organic (TOC)- Source | NA | NA | 4.3 | MG/L | 3.00 to 4.30 | 2025 | No | Naturally present in the environment |
| **Inorganic Contaminants** | | | | | | | | |
| Barium | 2 | 2 | 0.0111 | ppm | NA | 2025 | No | NA |
| Fluoride | 4 | 4 | 0.773 | Ppm | NA | 2025 | No | NA |
| Nitrate – Nitrite | 10 | 10 | 0.034 | ppm | NA | 2025 | No | NA |
| Selenium | 50 | 50 | 1.11 | ppb | NA | 2025 | No | NA |
| **Unregulated Contaminants** | | | | | | | | |
| Alkalinity, Carbonate | NA | NA | 8 | ppm | NA | 2025 | No | NA |
| Bicarbonate As HCO3 | NA | NA | 97 | ppm | NA | 2025 | No | NA |
| Calcium | NA | NA | 37.4 | ppm | NA | 2025 | No | NA |
| Chloride | NA | NA | 11.9 | ppm | NA | 2025 | No | NA |
| Conductivity @ 25 C UMHOS/CM | NA | NA | 577 | Umho/ cm | NA | 2025 | No | NA |
| Hardness, Total (As CACO3) | NA | NA | 154 | ppm | NA | 2025 | No | NA |
| Magnesium | NA | NA | 14.6 | ppm | NA | 2025 | No | NA |
| PH | NA | NA | 8.84 | PH | NA | 2025 | No | NA |
| Potassium | NA | NA | 4.66 | ppm | NA | 2025 | No | NA |
| Sodium | NA | NA | 68.2 | ppm | NA | 2025 | No | NA |
| Sodium Adsorption Ratio | NA | NA | 2.39 | obsvns | NA | 2025 | No | NA |
| Sulfate | NA | NA | 170 | ppm | 164 - 170 | 2025 | No | NA |
| TDS | NA | NA | 358 | ppm | NA | 2025 | No | NA |
| Zinc | NA | NA | 0.00192 | ppm | NA | 2025 | No | NA |

| TEST RESULTS FOR THE SOUTHWEST WATER AUTHORITY | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Contaminant** | **MCLG** | **MCL** | **Level Detected** | **Units** | **Range** | **Year** | **Violation Yes/No** | **Likely Source of Contamination** |
| Copper* | 0 | AL=1.3 | 0.199 90th% Value | ppm | ND to 0.218 | 2025 | 0 sites exceeded AL | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead* | 0 | AL=15 | ND 90th% Value | ppb | ND to ND | 2025 | 0 sites exceeded AL | Corrosion of household plumbing systems, erosion of natural deposits |
| **Inorganic Contaminants** | | | | | | | | |
| Arsenic | 0 | 10 | 1.06 | ppb | NA | 2025 | No | Erosion of natural deposits; run off from orchards; run off from glass and electronics production wastes |
| Barium | 2 | 2 | 0.0194 | ppm | NA | 2025 | No | NA |
| Fluoride | 4 | 4 | 0.834 | ppm | NA | 2025 | No | NA |
| **Disinfectants** | | | | | | | | |
| Chloramine | MRDLG=4 | MRDL=4.0 | 3.3 | ppm | 3.02 to 3.5 | 2025 | No | Water additive used to control microbes |
| **Unregulated Contaminants** | | | | | | | | |
| Alkalinity, Carbonate | NA | NA | 2 | ppm | ND - 2 | 2025 | No | NA |
| Bicarbonate As HCO3 | NA | NA | 204 | ppm | 93 – 204 | 2025 | No | NA |
| Calcium | NA | NA | 22.9 | ppm | NA | 2025 | No | NA |
| Chloride | NA | NA | 5.51 | ppm | NA | 2025 | No | NA |
| Conductivity @ 25 C UMHOS/CM | NA | NA | 322 | Umho/Cm | NA | 2025 | No | NA |
| Hardness, Total (As CACO3) | NA | NA | 95 | ppm | NA | 2025 | No | NA |
| Magnesium | NA | NA | 9.21 | ppm | NA | 2025 | No | NA |
| Nickel | NA | NA | 0.00519 | ppm | NA | 2025 | No | NA |
| PH | NA | NA | 8.28 | PH | NA | 2025 | No | NA |
| Potassium | NA | NA | 1.64 | ppm | NA | 2025 | No | NA |
| Sodium | NA | NA | 32.2 | ppm | NA | 2025 | No | NA |
| Sodium Adsorption Ratio | NA | NA | 1.44 | obsvns | NA | 2025 | No | NA |
| Sulfate | NA | NA | 71 | ppm | 68.4 - 71 | 2025 | No | NA |
| TDS | NA | NA | 188 | ppm | NA | 2025 | No | NA |
| Zinc | NA | NA | 0.00367 | ppm | NA | 2025 | No | NA |

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|---|---|---|---|---|---|---|---|---|
| **TOTAL ORGANIC CARBON (TOC) REMOVAL** | | | | | | | | |
| Alkalinity (ppm) Source Water | N/A | N/A | 168.12 | MG/L | 109.46 to 168.12 | 2025 | N/A | Natural erosion, plant activities, and certain industrial waste discharge |
| Total Organic Carbon (ppm) Finished Water | N/A | TT | 1.66 | MG/L | 1.25 to 1.66 | 2025 | N/A | Naturally present in the environment |
| Total Organic Carbon (ppm) Source Water | N/A | TT | 3.62 | MG/L | 2.91 to 3.62 | 2025 | N/A | Naturally present in the environment |
| **Stage 2 Disinfection Byproducts** | | | | | | | | |
| (HAA5) Total Haloacetic Acids | NA | 60 | 11 | ppb | 6.03 to 13.15 | 2025 | No | By-product of drinking water disinfection |
| TTHM (Total Trihalomethanes) | NA | 80 | 16 | ppb | 11.16 to 20.59 | 2025 | No | By-product of drinking water disinfection |

*The Missouri West Water System and Southwest Water Authority tests for copper and lead at twenty (20) locations throughout the distribution system. The Compliance Detection Level indicates the 90$^{th}$ percentile value, or the value that 90 percent of the test samples are below. No sample sites exceeded the action level.

Turbidity is an indirect measure of suspended material (such as clay and silt) in water. Turbidity is continuously measured during plant operation to monitor the performance/effectiveness of filtration. For the City of Mandan, the month of March 2025 had the highest single turbidity measurement of 0.059 N.T.U. and September 2025 lowest single turbidity measurement of 0.025 N.T.U. During 2025 Southwest Water Authority's highest single turbidity measurement was 0.07 N.T.U. The lowest monthly percentage of samples meeting turbidity limits equals 100%.

**Lead Education and Lead Service Line Inventory Information**:

Lead Information

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 to 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 people 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. Missouri West Water System 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 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 formulas, 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 Missouri West Water System at 701-663-8549. 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*

Lead Service Line Inventory Information

USEPA has recently published 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 MISSOURI WEST WATER SYSTEM at 701-663-8549 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 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 engineering firms or third-party contractors to complete this work to improve our service line inventory.

EPA requires monitoring of over 90 drinking water contaminants. Those contaminants listed in the tables on the previous pages are the only contaminants detected in your drinking water. The EPA requires testing for certain unregulated contaminants but has not established enforceable drinking water standards for them. They are monitored to determine 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.

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 701-663-8549.

As you can see, our system had no violations. We are 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.

Missouri West Water System works around the clock to provide top quality water for 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.

Missouri West Water Systems
Karin Garvie, General Manager
Telephone: (701) 663-8549

Quality On Tap!
Our Commitment Our Profession

Morton County Water Resource District Board Members

| | |
|---|---|
| Wade Bachmeier, Mandan | Jim Schmidt, Mandan |
| Todd Norton, New Salem | Jamie Wetsch, Mandan |
| Bruce Engelhardt, Mandan | |

**Safe Drinking Water Hot Line (800-426-4791)**