Annual Drinking Water Quality Report

Gladstone, ND • 2025

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. The City of Gladstone purchases their water from Southwest Water Authority (SWA). Our goal is to provide you with a safe and dependable supply of drinking water. If you have any questions about this report or concerning your water utility, you are welcome to attend SWA's regularly scheduled meetings held the first Monday of each month. For information on the agenda or time, please contact 1-888-425-0241 or email swa@swwater.com. The City of Gladstone also holds monthly meetings on the first Monday of each month at 6:00PM MST. Please contact Maria Kolling, Auditor, at 701-483-4523 for agenda information. We want our valued customers to be informed about their water utility.

The City of Gladstone would appreciate if large volume water customers would please post copies of the *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. Non-English speaking individuals who need help with the appropriate language translations, please call Maria Kolling at the number listed above.

The City of Gladstone is participating in North Dakota's Wellhead Protection Program. A copy of this program is available upon request. The North Dakota Department of Environmental Quality has prepared a Source Water Assessment for Gladstone. Information regarding this program is also available upon request.

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 "moderately susceptible" to potential contaminant sources. They also noted that "historically, SWA has effectively treated this source water to meet drinking water standards."

The City of Gladstone and Southwest Water Authority routinely monitor 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, 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 [e.g., for inorganic contaminants], 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, may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, can naturally occur 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, 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 can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure 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.

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 (800-426-4791).

The following table contains many terms and abbreviations you might not be familiar with. To help you better understand these terms, we have provided the following definitions:

- Not Applicable (NA)
- Parts per million (ppm) or Milligrams per liter (mg/l)
- Parts per billion (ppb) or Micrograms per liter (μg/l)
- Picocuries per liter (pCi/l) - picocuries per liter is a measure of the radioactivity in water.
- Nephelometric Turbidity Units NTU
- 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 (MCL) - It 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 (MCLG)_ - The "Goal." It 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. Convincing evidence supports a disinfectant being necessary to control 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.

2025 Test Results for the City of Gladstone, ND & Southwest Water Authority

LEAD/COPPER

Contaminant	Samples	Action Level	90th Percentile	Units	Range	Year	Violation	Likely Source of Contamination
Copper	5	1.3	0.059	ppm	0.0131-0.0882	2025	No	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives.
Lead	5	15	No Detect	ppb	ND to ND	2025	No	Corrosion of household plumbing systems, erosion of natural deposits.

MICROBIOLOGICAL CONTAMINANTS

Contaminant	MCLG	MCL	Level Detected	Units	Range	Year	Violation	Likely Source of Contamination
Turbidity*	N/A	TT=0.3	0.32	NTU	N/A	2025	No	Soil runoff.

INORGANIC CONTAMINANTS

Contaminant	MCLG	MCL	Level Detected	Units	Range	Year	Violation	Likely Source of Contamination
Barium	2	2	0.0118	ppm	N/A	2025	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride	4	4	0.92	ppm	N/A	2025	No	Erosion of natural deposits; water additive to promote strong teeth; discharge from fertilizer & aluminum factories.
Nitrate-Nitrite	10	10	0.074	ppm	N/A	2025	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Selenium	50	50	1.29	Ppb	N/A	2025	No	Naturally present in the environment.

DISINFECTANTS & DISINFECTANT BYPRODUCTS

Contaminant	MCL	MCLG	High Comp.	Units	Range	Year	Violation	Likely Source of Contamination
Chloramine	MRDL =4.0	MRDL G = 4	2.6	ppm	0.1-3.7	2025	No	Water additive that's used to control microbes.
HAA5	60	N/A	13	ppb	12.51-13.41	2025	No	By-product of water chlorination.
TTHM	80	N/A	10	ppb	8.72-9.67	2025	No	By-product of water chlorination.

UNREGULATED CONTAMINANTS

Contaminant	MCLG	MCL	Level Detected	Units	Range	Year	Violation	Likely Source of Contamination
Alkalinity, as Carbonate	N/A	N/A	4	ppm	ND-4	2024	No	N/A
Bicarbonate as HCO3	N/A	N/A	200	ppm	181-200	2024	No	N/A

TOTAL ORGANIC CARBON REMOVAL

Contaminant	MCLG	MCL	Level Detected	Units	Range	Year	Violation	Likely Source of Contamination
Alkalinity-Source	N/A	N/A	169.06	ppm	154.5-169.06	2025	No	Erosion, plant activities & certain industrial waste discharge.
Total Organic Carbon Source Water	N/A	TT	3.64	ppm	2.38-3.64	2025	No	Naturally present in environment.
Total Organic Carbon Finished Water	N/A	TT	3.16	ppm	1.93-3.16	2025	No	Naturally present in environment.

*Turbidity is a measure of the cloudiness of the water. It is measured because it is a good indicator of the effectiveness of the filtration system.

UNREGULATED CONTAMINANTS – SOUTHWEST WATER AUTHORITY

Contaminant	Level Detected	Units	Range	Year	Violation	Likely Source of Contamination
Alkalinity Carbonate	7	ppm	ND-7	6/9/2025	No	Carbonate and Bicarbonate anions in a solution.
Bicarbonate AS HCO3	205	ppm	112-205	6/9/2025	No	Acts as a natural buffer, aiding in pH stability.
Calcium	41	ppm	N/A	3/11/2025	N/A	Water hardness is classified by calcium concentration.
Chloride	11.4	ppm	N/A	3/11/2025	N/A	Chloride in water, often from road salt, fertilizers, or softeners.
Conductivity@25 C UMHOS/CM	583	umho/cm	N/A	3/11/2025	N/A	Conductivity is commonly measured for water quality.
Hardness, Total (AS CACO3)	176	ppm	N/A	3/11/2025	N/A	Standard unit (mg/L or ppm) expressing the total concentration of calcium and magnesium ions in water.
Magnesium	17.9	ppm	N/A	3/11/2025	N/A	Naturally occurring mineral found in ground and river water.
PH	8.71	ph	N/A	3/11/2025	N/A	Measures the acidity or alkalinity of water.
Potassium	3.9	ppm	N/A	3/11/2025	N/A	Potassium is an essential mineral.
Sodium	62.7	ppm	N/A	3/11/2025	N/A	Salt, also known as sodium chloride.
Sodium Adsorption Ratio	2.05	obsvns	N/A	3/11/2025	N/A	Sodium adsorption ratio (SAR) is a measure of the amount of sodium relative to the amount of calcium and magnesium in a water sample.
Sulfate	169	ppm	157-169	3/11/2025	N/A	Sulfate is a common polyatomic anion.
TDS	357	ppm	N/A	3/11/2025	N/A	Measures inorganic salts.
Zinc	0.00114	ppm	N/A	3/11/2025	N/A	Zinc is an essential nutrient naturally present in water.

Once every five years EPA issues a list of unregulated contaminants to be monitored by public water systems. Southwest Water Authority was selected by EPA to sample for thirty (30) unregulated contaminants during 2025. Samples were collected four times at the Entry Point to the distribution system (EP), 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 contaminant was the only UCMR5 contaminant detected during this sampling.

UCMR5 Unregulated Contaminant	Average Value at EP Sampling Point (ug/L)
Lithium SE1 52.3 ug/L SE2 45.5 ug/L SE3 45.6 ug/L SE4 50.6 ug/L	Lithium Average: 48.5 (Range: 45.5 to 52.3)

Violation: Disinfection By-products Rule – Failure to Monitor/Report (Major), 4th Quarter 2025. This rule requires the City to monitor monthly chlorine levels and report them to the Department of Environmental Quality on a quarterly basis. During the 4th quarter of 2025 (October, November, December), the required number of samples were not taken, or the report was not submitted on time; therefore, we cannot be certain of the disinfectant level during that period. Some individuals who use water containing chlorine well above the Maximum Residual Disinfectant Level (MRDL) may experience irritation of the eyes or nose. Some individuals who drink water with chlorine levels well above the MRDL may experience stomach discomfort. The City of Gladstone has taken steps to correct this violation of the Disinfectants and Disinfection By-products Rule by returning to a routine monitoring and reporting schedule.

Violation: Revised Total Coliform Rule (RTCR) – Failure to Routine Monitor (Major) November 2025. Our water system is required to sample Total Coliform bacteria monthly. We failed to collect the required number of total coliform samples during the month of November 2025 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 Gladstone has taken steps to correct this violation of the Revised Total Coliform Rule by returning to a routine testing schedule.

Our supplier, Southwest Water Authority, 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.

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 Gladstone City Hall at 701-483-4523.

Unregulated contaminants are those which the 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.

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

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level 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.

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 9both 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 persons who are exposed to lead before or during pregnancy may be at increased risk of these harmful 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. The City of Gladstone 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 effect 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 the City of Gladstone at 701-483-4523. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available http://www.epa.gov/safewater/lead.

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 lie 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 servicing 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 Gladstone City Hall or online at www.gladstonend.org in the Public Notices section. Please contact Maria Kolling, Auditor, at 7010-483-4523 with any questions.

Additional work to update the service line inventory, including inspection of the line, may be necessary to further document and confirm the type of material used in both the public and private portions of the service line serving your home or business. We will need the cooperation of property owners to access the private side of the service line so we can accurately identify the material of the pipe that carries water into the home or building. This work may be performed by City staff, or we may contract with engineering firms or third-party contractors to complete the inspections and improve the accuracy of our service line inventory.

Thank you for allowing us to provide your family with clean, quality water this year. To maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all our customers. These improvements sometimes require rate structure adjustments.

Southwest Water Authority and the City of Gladstone work around the clock to provide high-quality water to every tap. We ask all customers to help us protect our water sources, which are at the heart of our community, our way of life, and our children's future.

Please contact Maria Kolling, Auditor, at 701-483-4523 or auditor@gladstonend.org with any questions.

City of Gladstone

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