

The 2022
Drinking Water Quality Report For
The City of Enderlin, North Dakota

The City of Enderlin, as required by the Federal Safe Drinking Water Act (SDWA), has prepared and is distributing to our customers this year's annual drinking water quality report. This is our opportunity, to share with you the consumer, any information on the quality of water we provide to your home, apartment, or business. In addition, this report is an educational tool that allows us to inform you of the source of our water, our treatment facilities, and process. It is our daily goal to provide you with a safe and dependable supply of drinking water.

If you own or manage an apartment complex or have renters, we encourage you to share this report with them. If you have any questions regarding this report, please call Rick Gillund, our Public Works Director, at (701) 437-3461. Any questions you have can be answered at our regular City Council Meeting, the first Monday of every month at 7:00 PM. If you are aware of any non-English speaking individuals who need help with the appropriate language translation, please call Mr. Gillund at the number listed above.

This report has required definitions of terms, language requirements, tables of water quality data, and other pertinent information you will hopefully find interesting and educational.

A. Source of Enderlin's Water:

The city currently has 5 wells that they are getting their ground water from. These wells are located in the city limits and draw water from the aquifer below us. The depth of our wells range from 37 feet to 150 feet deep. The Water Treatment Plant is a lime-soda ash softening one, rated at 1200 per minute. We are setup to do aeration, chlorination, filtration, clarification, and add fluoride to the water. After the water has been treated and filtered it goes into three underground storage tanks totaling 1,050,000 gallons. To see a listing of annual totals (attachment 1). The City has two water towers that hold a combined total of 350,000 gallons of water that supply the city's water pressure.

B. Water Assessment:

Our public water system, in cooperation with the North Dakota Department of Health, has completed the delineation and contaminate/land use inventory elements of the North Dakota Source Water Protection Program. Based on the information from the elements, the NDDH has determined that our source water is moderately susceptible to potential contaminants. The City is involved in the Wellhead Protection Program. Copies of the Wellhead Protection report along with other relevant information are available at our city office during normal business hours.

C. Contaminants Which May Reasonably Be Expected To Be Found In Drinking Water and Bottle Water:

The sources of drinking water (both tap water and bottle 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:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) 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.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- (D) 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.
- (E) 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 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) regulation establish limits for contaminants in bottle water which must provide the same protection for public health.

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 health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

D. Some People Are More Vulnerable to Contaminants:

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons 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. Environmental Protection Agency/Center for Disease Control (EPA/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 (800-426-4791).

E. Required Definitions:

Maximum Contaminants Levels Goal or MCLG:

The level of a contaminant in drinking water below which there is no known of expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminants Level:

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.

Treatment Technique:

A required process intended to reduce the level of a contaminant in drinking water.

Action Level:

The concentration of a contaminant, if exceeded, triggers treatment or other requirements which a water system must follow.

F. Table of Detected Regulated Contaminants

(The data presented is for 2022 or the most recent in accordance with state and federal regulations.)

Key for Sections F and H

AL= Action Level

MCL= Maximum Contaminant Level

MCLG= Maximum Contaminant Level Goal

MFL= million fibers per liter

MRDLG= Maximum Residual Disinfectant Level Goal

MRDL= Maximum Residual Disinfectant Level

mrem/year= millirems per year (a measure of radiation absorbed by the body)

n/a= Not Applicable

nd= Not Detected

NTU=Nephelometric Turbidity Units

pCi/l=picocuries per liter (a measure of radioactivity)

ppm= parts per million, or milligrams per liter (mg/l)

ppb= parts per billion, or micrograms per liter (ug/l)

ppt=parts per trillion, or nanograms per liter

ppq=parts per quadrillion, pictograms per liter

TT= Treatment Technique

**TABLE OF DETECTED CONTAMINANTS
INORGANIC CHEMICALS**

Chemical Name	Date	MCL	MCLG	Level Found	Source of Contaminant
Chlorine	8/31/2022	MRDL=4.0	MRDLG=4	1.6 PPM	Water additive used to control microbes.
The range of detection for Chlorine is between 1.05 PPM to 2.4 PPM					
Arsenic	3/15/16	10	0	1.14 PPB	Erosion of natural deposits
Barium	4/16/18	2	2	0.00371 PPM	Discharges of drilling wastes, Erosion of natural deposits.
Fluoride	4/16/18	4	4	0.981 PPM	Erosion of natural deposits, Water additive which promotes strong teeth.
Selenium	4/16/18	50	50	2.63 PPB	Discharge from petroleum and metal refineries; Erosion of natural deposits
Nitrate-Nitrite	5/17/2022	10	10	0.069 PPM	Discharges from mines Runoff from fertilizer use; Leaching from septic tanks Sewage; Erosion of natural Deposits

REGULATED CONTAMINANTS

HAA5	12/31/2022	60	N/A	27 PPB	By-products of drinking water chlorination.
TTHM	12/31/2022	80	N/A	97 PPB	By-products of drinking water chlorination.
TTHM (STG2-01)	12/31/2022	80	N/A	97 PPB	By-products of drinking water chlorination.

The range of detection for HAA5 is between 7.78 PPB to 26.78 PPB.

The range of detection for TTHM is between 67.41 PPB to 97.39 PPB.

The City of Enderlin is required to routinely monitor its drinking water for Disinfection By-products (DBP). A routine DBP sample taken July 19, 2022 indicated a TTHM result of 97 ppb. This value exceeds the established TTHM Maximum Contaminant Level (MCL)(allowable levels) of 80 ppb. While this is not a violation, this elevated result requires the system to do quarterly sampling to further characterize the level of TTHM in the system over a longer period of time to determine if further steps are required to meet the MCL. The City of Enderlin has been flushing the distribution system with increased volumes of water to decrease the age of the water in the system and thereby reduce the level of DBP's which can be formed as the water ages increases. A quarterly sample taken October 5, 2022 indicated TTHM at 67 ppb, and another quarterly sample taken January 10, 2023 indicated TTHM at 39 ppb. Both of these values are below the 80 ppb MCL. The next quarterly sample will be taken during the April-May-June 2023 quarter. The additional flushing and sampling is being performed to keep the TTHM level below the MCL because, some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their livers,

kidneys, or central nervous systems, and may have an increased risk of getting cancer. The City of Enderlin is following these procedures to prevent any further TTHM exceedances and the potential for these health effects.

UNREGULATED CONTAMINANTS

Alkalinity, Carbonate	4/16/18	3 PPM	N/A
Alkalinity, Total	4/16/18	94.1 PPM	N/A
Bicarbonate as HCO ₃	4/16/18	109 PPM	N/A
Calcium	4/16/18	63.2 PPM	N/A
Chloride	4/16/18	36.3 PPM	N/A
Conductivity 25 C UMHOS/CM	4/16/18	1540 UMHO/CM	N/A
Hardness, Total (as CaCO ₃)	4/16/18	239 PPM	N/A
Magnesium	4/16/18	19.6 PPM	N/A
Nickel	4/16/18	0.00473 PPM	N/A
PH	4/16/18	8.4 PH	N/A
Potassium	4/16/18	9.7 PPM	N/A
Sodium	4/16/18	234 PPM	N/A
Sodium Adsorption Ratio	4/16/18	6.59 OBSVNS	N/A
Sulfate	4/16/18	558 PPM	N/A
TDS	4/16/18	1010 PPM	N/A
Zinc	4/16/18	0.004 PPM	N/A

RADIOACTIVE CONTAMINANTS

February 5, 2018

	<u>MC</u>	<u>MCLG</u>	<u>Level Found</u>	<u>Source of contaminant</u>
Gross Alpha, including RA, excluding RN & U	15	15	3.64 pCi/l	Erosion of natural deposits
Radium, Combined (226, 228)	5		0.42 pCi/l	Erosion of natural deposits

September 23, 2021

	<u>AL</u>	<u>90th%(ppm)</u>	<u>Sites that exceed AL</u>	<u>Source of Contaminant</u>
Copper	1.3 PPM	0.0138	0	Corrosion of household plumbing systems
Lead	15 PPM	<u>90th%(ppb)</u> No Detect	0	Corrosion of household plumbing systems

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 Enderlin is responsible for providing high quality drinking water, but cannot control the variety of material 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>.**

If you have any questions about this report feel free to call Rick Gillund at the Enderlin Water Plant (701) 437-3461 or City Auditor's Office (701)437-3476.

Attachment 1.

Below is a listing by year of the water treated by the City's Water Treatment Plant:

2022	276,082,000 Gallons
2021	320,335,000 Gallons
2020	317,335,000 Gallons
2019	284,465,000 Gallons
2018	227,707,000 Gallons

