

Annual Drinking Water Quality Report

Mapleton, North Dakota

2015

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. The city of Mapleton purchases its water from Cass Rural Water District - Phase I & II.

Cass Rural Water District and the city of Mapleton are participating in North Dakota's Wellhead Protection Program. Copies of the Wellhead Protection Plan along with other relevant information are available at Cass Rural Water District Kindred office during normal business hours. Information on Mapleton's Wellhead Protection Plan can be obtained from Duane Klatt, Public Works Superintendent. The North Dakota Department of Health has prepared a Source Water Assessment for Cass Rural Water District and the city of Mapleton. This information is available to the public at Cass Rural Water District's Kindred office during normal business hours. Information on Mapleton's Source Water Assessment can be obtained from Duane Klatt, Water Works Superintendent. Our public water system, in cooperation with the North Dakota Department of Health, 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 Health has determined that our source water is not likely susceptible to potential contaminants. No significant sources of contamination have been identified.

Mapleton is pleased to report that our drinking water is safe and meets federal and state requirements. 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 Duane Klatt, Water Works Superintendent, at (701) 630-5076. 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 second Monday of each month. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Duane at the number listed above.

The city of Mapleton would appreciate it 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.

Mapleton routinely monitors for contaminants in your drinking water according to Federal and State laws. The following tables show the results of our monitoring for the period of January 1st to December 31st, 2015 or the most recent test results available. 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, 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, industrial or domestic wastewater discharges, oil production, mining or farming.

Pesticides and herbicides, which come from a variety of sources such as agriculture, urban stormwater 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 stormwater 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 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.

In the tables on pages 3 and 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:

Not Applicable- (N/A)

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 (µg/l)- one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) – one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

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.

TEST RESULTS FOR THE CITY OF MAPLETON								
<u>Contaminant</u>	<u>MCLG</u>	<u>MCL</u>	<u>Level Detected</u>	<u>Unit Measurement</u>	<u>Range</u>	<u>Date (year)</u>	<u>Violation Yes/No Other Info</u>	<u>Likely Source of Contamination</u>
Lead/ Copper								
1. Copper	1.3	AL=1.3	0.428 90 th % Value	ppm	N/A	2015	*No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
2. Lead	0	AL=15	1.64 90 th % Value	ppb	N/A	2015	**No	Corrosion of household plumbing systems, erosion of natural deposits
Disinfectants								
3. Chlorine	MRDL G=4	MRDL= 4.0	2.5	ppm	2 to 3.3	2015	No	Water additive used to control microbes
Stage 2 Disinfection Byproducts								
4. Total Haloacetic Acids (HAA5)	System -Wide	60	12	ppb	N/A	2015	No	By-product of drinking water disinfection.
5.Total Trihalomethanes (TTHM)	System -Wide	80	12	ppb	N/A	2015	No	By-product of drinking water chlorination.

* No sites exceeded the copper lead action levels in 2015.

** 1 site exceeded the lead action levels in 2015.

TEST RESULTS FOR CASS RURAL WATER DISTRICT – PHASE I								
<u>Contaminant</u>	<u>MCLG</u>	<u>MCL</u>	<u>Level Detected</u>	<u>Unit Measurement</u>	<u>Range</u>	<u>Date (year)</u>	<u>Violation Yes/No Other Info</u>	<u>Likely Source of Contamination</u>
Disinfectants								
1. Chlorine	MRDL G=4	MRDL=4 .0	3.1	ppm	2.54 to 3.45	2015	No	Water additive used to control microbes
Lead/ Copper								
3. Copper	1.3	AL=1.3	0.781 90 th % Value	ppm	N/A	2015	*No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
4. Lead	0	AL=15	2.8 90 th % Value	ppb	N/A	2015	*No	Corrosion of household plumbing systems, erosion of natural deposits

No sites exceeded the lead or copper action levels in 2015.

Stage 2 Disinfection Byproducts								
5. Total Haloacetic Acids (HAA5)	System -Wide	60	4	ppb	N/A	2015	No	By-product of drinking water disinfection.
6.Total Trihalomethanes (TTHM)	System -Wide	80	6	ppb	N/A	2015	No	By-product of drinking water chlorination.

TEST RESULTS FOR CASS RURAL WATER DISTRICT – PHASE II								
<u>Contaminant</u>	<u>MCLG</u>	<u>MCL</u>	<u>Level Detected</u>	<u>Unit Measurement</u>	<u>Range</u>	<u>Date (year)</u>	<u>Violation Yes/No Other Info</u>	<u>Likely Source of Contamination</u>
Disinfectants								
1. Chlorine	MRDL G=4	MRDL=4 .0	1	ppm	0.71 to 1.35	2015	No	Water additive used to control microbes
Inorganic Contaminants								
2. Nitrate-Nitrite	10	10	0.51	ppm	N/A	2015	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Stage 2 Disinfection Byproducts								
3. Total Haloacetic Acids (HAA5)	System -Wide	60	8	ppb	N/A	2015	No	By-product of drinking water disinfection.
4.Total Trihalomethanes (TTHM)	System -Wide	80	22	ppb	N/A	2015	No	By-product of drinking water chlorination.
Lead/ Copper								
5. Copper	1.3	AL=1.3	1.03 90 th % Value	ppm	N/A	2015	** 1 site exceeded action level	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
6. Lead	0	AL=15	2.01 90 th % Value	ppb	N/A	2015	*No	Corrosion of household plumbing systems, erosion of natural deposits

* No sites exceeded the lead levels in 2015.

** 1 site exceeded the cooper levels in 2015.

EPA requires monitoring of over 80 drinking water contaminants. Those contaminants listed above are the only contaminants detected in your drinking water.

As you can see by the tables above, our system had no violations. We're 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.

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 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).

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.

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).

If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Mapleton 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 or at <http://www.epa.gov/safewater/lead>.

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

Please call Duane Klatt, Water Works Superintendent, at (701) 630-5076 if you have questions regarding your city's water system.

The city of Mapleton 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.

