Annual Drinking Water Quality Report
Page, North Dakota
2017

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). All three wells are 126 feet deep. Water treatment includes iron and manganese removal, addition of polyphosphates, fluoridation, and chlorination.

Cass Rural Water District Phase III and the City of Page are participating in North Dakota's Wellhead Protection Program. The North Dakota Department of Health has prepared a Source Water Assessment for Cass Rural Water Users, Inc. and the City of Page. This is available for review by contacting Cass Rural Water Users, Inc. or the City Auditor at (701) 668-2226. 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 determined to be not likely susceptible to potential contaminants. This information is available to the public by contacting the City Auditor at (701) 668-2226.

The City of Page 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 Judy Johnson, City Auditor, at (701) 668-2226. 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, unless otherwise posted, beginning at 7:00 AM, at the Page City Office located at 131 Morton Avenue, Suite A. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Judy Johnson at the number listed above.

The City of Page would appreciate it if large volume water customers 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.

The City of Page routinely monitors for contaminants in our drinking water according to Federal and State laws. The table included in this report shows the results of our monitoring for the period of January 1st to December 31st, 2017. 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.

EPA requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the table are the only contaminants detected in your drinking water. As you can see by this table, 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.

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.

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 (EPA) 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 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 storm water 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 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.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount 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.

In the table 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:

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.

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

Positive samples/month – Number of samples taken monthly that were found to be positive.

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) – 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. MCLGs allow for a margin of safety.

TEST RESULTS FOR THE CASS RURAL WATER DISTRICT-PHASE III

Contaminant	MCLG or MRDLG	MCL TT or MRD	Level Detected	Range	Sample Date	Violation	Typical Source
Inorganic Contaminants:							
Arsenic (ppb)	0	10	5.14	N/A	2016	**No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Copper (ppm)	1.3	AL=1.3	0.32 90th % Value	N/A	2015	*No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	0	AL=15	1.68 90th % Value	N/A	2015	*No	Corrosion of household plumbing systems; erosion of natural deposits
Barium (ppm)	2	2	0.0427	N/A	2009	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	4	4	1.08	N/A	2009	No	Erosion of natural deposits; water additive to promote strong teeth; discharge of fertilizer factories
Nitrate-Nitrite (ppm)	10	10	0.08	N/A	2009	No	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
Radioactive Contaminants:							
Uranium, Combined (ppb)	0	30	1.96	N/A	2017	No	Erosion of natural deposits
Radium, Combined (226,228) pCi/l		5	0.11	N/A	2017	No	Erosion of natural deposits
Gross Alpha, Incldng RA, Excldng RN & U (pCi/l)	15	15	1.68	N/A	2017	No	Erosion of natural deposits
Disinfectants:							
Chlorine (ppm)	4	4	1.2	.94 to 1.42	2017	No	Water additive used to control microbes
Stage 1 Disinfection Byproducts (TTHM/HAA5)							
HAA5 (ppb)	0	60	5	N/A	2017	No	By-product of drinking water disinfection
TTHM (ppb)	0	80	12	N/A	2017	No	By-product of drinking water disinfection

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

TEST RESULTS FOR THE CITY OF PAGE

Contaminant	MCLG or MRDLG	MCL TT or MRD	Level Detected	Range	Sample Date	Violation	Typical Source
Inorganic Contaminants:							
Copper (ppm)	1.3	AL=1.3	0.52 90th % Value	N/A	2016	*No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	0	AL=15	2.75 90th % Value	N/A	2016	*No	Corrosion of household plumbing systems; erosion of natural deposits
Disinfectants:							
Chlorine (ppm)	4	4	1.2	.7 to 1.7	2017	No	Water additive used to control microbes
Stage 1 Disinfection Byproducts (TTHM/HAA5)							
HAA5 (ppb)	0	60	6	N/A	2017	No	By-product of drinking water disinfection
TTHM (ppb)	0	80	16	N/A	2017	No	By-product of drinking water disinfection

No sites exceeded the lead or copper action levels in 2016.

**<u>Additional information regarding Arsenic</u> – While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

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 Page 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 (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

Nitrate in drinking water at levels above 10 PPM is a health risk for infants of less than six months of age. Infants below the age of six months of age who drink water containing Nitrate in excess of 10 PPM water can become seriously ill and, if left untreated, may die. Symptoms include shortness of breath and "blue baby syndrome". Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

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.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

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/Centers for Disease Control and Prevention (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).

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

Please call Judy Johnson, City Auditor, at (701) 668-2226 if you have questions concerning your community water system.

The City of Page 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.

Jim Heidorn, Mayor

City Council Members
Matthew Erickson, Julie Bankers, Natalie Nitschke, Arnold Bankers

City Auditor, Judy L. Johnson
Public Works Supervisor, Page City Council

Quality On Tap!
Our Commitment Our Profession