The 2007 Drinking Water Quality Report
for the City of Rugby, North Dakota

We're pleased to present to you this year's Quality Water 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 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 source is taken from wells located in the Pleasant Lake Aquifer and the Rugby Aquifer, both located East of the City of Rugby and is delivered through a pipeline to the Rugby Water Treatment Plant located at 211 - 4th Ave. NW. The processing of the water from the Water Treatment Plant is accomplished by a lime softening and filtering process that treats up to 1250 gallons a minute.

"I'm pleased to report that our drinking water is safe and meets federal and state requirements", said Mayor Dale G. Niewoehner. This report shows our water quality and what it means.

We have instituted a wellhead protection plan for the area around the Pleasant Lake Aquifer well site, within the limitations of the law and property rights. The City of Rugby has eight wells, with wells one and two located within the Rugby Aquifer, which is located 1 ½ miles east of Rugby, and wells three, four, five, six, seven, and eight are located in the Pleasant Lake Aquifer, which is 9½ miles east of Rugby. These wells are outside the jurisdictional limits of the city and cannot be protected in the same manner as if they were located within the city limits.

The areas surrounding the well sites are farming interests. Landowners that surround the well sites have been contacted in an effort to reduce the possibilities of contamination of the ground water aquifers. Further efforts to help alleviate the threats to ground water contamination are continuing, by meeting with these people and helping, when possible, with problems that may appear.

Land that the City of Rugby does control surrounding the wells is fenced and access is controlled by locked gates that only city employees have keys for. The well houses have locks that are secured at all times. Oil, gas and other fuel leaks are prevented by periodic checks and the restricted access to the grounds. Chemical spraying of the area is not allowed because of the ongoing testing of biological control measures.

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.

If you have any questions about this report or concerning your water utility, please contact Richard Larson, Water Plant Supervisor. The phone number at the water treatment plant is 776-6034 and can be called during normal business hours (8am – 5pm)**.** We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of the regularly scheduled City Council meetings, which are held at the Rugby City Hall, Council Chambers, 223 South Main Ave., Rugby, ND 58368. They are held on the first Monday of the month at 7:30pm. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please contact Karla Harmel, City Auditor/Administrator at 776-6181.

The City of Rugby would appreciate it if large volume water customers post copies of the CCR 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 Rugby routinely monitors for contaminants in your drinking water according to federal and state laws. This table shows the results of our monitoring for the period of January 1 to December 31, 2007.

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 or gas 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 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 this table 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:

Non-Detects (ND) - laboratory analysis indicates that the contaminant is not present.

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 $10,000.00.

Parts per billion (ppb) or Micrograms per liter (mg/l)- one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.00.

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 $10,000,000,000.00.
Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.

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

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Variances & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

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 Goal (MRDLG) – 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.

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.

TEST RESULTS

Radioactive Contaminants

Contaminant	Violation Yes/No	Level Detected	Range	Date (year)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Radium 226, 228	No	1.29		8/25/2003	pCi/L	0	5	Erosion of natural deposits
Uranium, Combined	No	1.11		8/25/2003	Ppb		30	

Synthetic Organic Contaminants including Pesticides and Herbicides

Contaminant	Violation Yes/No	Level Detected	Range	Date (year	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Acrylamide	No	.0001247		2006	Mg/L	0	.0005	Added to water during sewage/wastewater treatment

Inorganic Contaminants

Contaminant	Violation Yes/No	Level Detected	Range	Date(year)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Arsenic	No	1.91		10/9/2007	ppb	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	No	0.0088		6/28/2000	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	No	0.0 90 percentile 0 Sites Exceed AL		9/6/2007	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	0.34		6/28/2005	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	No	2.71 90 percentile 0 Sites Exceed AL		9/6/2007	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate – Nitrite (as Nitrogen)	No	0.13		2/20/2007	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Disinfection Byproducts

Contaminant	Violation Yes/No	Level Detected	Range	Date (year)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	No	33	2.73 to 33.23	12/31/2005	ppb		60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	No	39	18.73 to 38.93	12/31/2005	ppb		80	By-product of drinking water chlorination

Disinfectants

Contaminant	Violation Yes/No	Level Detected	Range	Date (year)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Chlorine	No	1.2	0.05 to 2	10/31/2007	ppm	MRDL= 4	MRDL=4.0	Water additive used to control microbes

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

As you can see by the table, 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 effects can be obtained by calling the EPA'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/Center 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).

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

Please call our office if you have questions.

City of Rugby Water Treatment Plant works around the clock 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.