

# City of Wahpeton Annual Drinking Water Quality Report

## January 1, 2011 to December 31, 2011

The City of Wahpeton is proud to present the Annual Drinking Water Quality Report. Not only is our drinking water safe and meeting all federal and state requirements, it was voted "Best Tasting Drinking Water in North Dakota" at the 2004 annual convention of the North Dakota Section of the American Water Works Association. This report is our opportunity to inform you on the quality of water and services we deliver to you every day as we strive to meet our goal of providing 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 your tenants. If you have questions regarding this report, please call Randy Nelson at (701) 642-6565. If you wish to attend any of our regularly scheduled City Council meetings, these meetings are held on the first and third Mondays of the month at 5:00 PM at City Hall located at 1900 4<sup>th</sup> Street North. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Mr. Nelson at the number listed above.

### A. Source and Treatment of Wahpeton's Water:

The City currently withdraws ground water from the Wahpeton Buried Valley Aquifer from three wells located approximately three miles north of Wahpeton. The Wahpeton Buried Valley Aquifer in this area consists of interbedded sequences of sand and gravel. The City Water Treatment Plant provides pH adjustment for corrosion control, lime softening to reduce hardness, sand filtration to remove particulates and contaminants that may come from the source water, fluoridation, and post chlorination. **Due to the natural ammonia levels in our aquifer, chloramines are formed during the post chlorination process to provide disinfection right up to the customer's tap.**

### B. Source Water Assessment:

The City is participating in the North Dakota Wellhead Protection Program. We have completed a delineation of the Well Head Protection Area (WHPA) which identifies potential sources of contamination that may impact water resources within the WHPA boundaries, as well as in the outer peripheries, and we have implemented a Well Head Protection Program. The Well Head Protection Plan can be reviewed and/or a copy can be obtained at City Hall Offices during normal business hours. The North Dakota Department of Health has determined that Wahpeton's source water is moderately susceptible to potential contaminants that could percolate into the aquifer.

### C. Contaminants Which May Be Present in Source Water:

The sources of drinking water (both tap water 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. 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 effect can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

In order to ensure that tap water is safe to drink, EPA prescribes regulations which 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. 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 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.

**Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also can 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.

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 disorder, 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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791)

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 material and components associated with service lines and home plumbing. Wahpeton 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>.

Unregulated contaminants are those for which the Environmental Protection Agency has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the Environmental Protection Agency in determining the occurrence or unregulated contaminants in drinking water and whether future regulation is warranted.

**Key to Abbreviations in Table I:**

**AL** - Action Level: The concentration of a contaminant, if exceeded, triggers treatment or other requirements, which a water system must follow

**MCLG** - Maximum Contaminant Level Goal: 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.

**MCL** - Maximum Contaminant 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.

**MRDLG** - Maximum Residual Disinfectant Level Goal: 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.

**MRDL** - Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence addition of a disinfectant is necessary for control of microbial contaminants.

**TT** - Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

**pCi/l** = picocuries per liter (a measure of radiation absorbed by the body)

**umho/cm** = micromhos per centimeter (a measure of conductivity)

**obsvns** = observations/field at 100 Power

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

**NA** = not applicable

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

**ND** = none detected

**Table I - Test Results: Detected Substances**

SUBSTANCE	DATE	MCLG	MCL	HIGHEST LEVEL Detected	UNITS	RANGE	TYPICAL SOURCE OF CONTAMINANT
<b>Microbiological Regulated</b>							
Total Coli form Bacteria		0 present	Present in >5% of samples	No coli form detected		NA	Naturally present in the environment. (Indicator that other potentially harmful bacterial may be present.)
<b>Inorganic Regulated</b>							
BARIUM	3/9/09	2	2	0.00483	ppm	NA	Erosion of natural deposits and discharge of drilling wastes
FLUORIDE	3/9/09	4	4	1.18	ppm	NA	Erosion of natural deposits; Water additive that promotes strong teeth
NITRATE+NITRITE(as N)	2/7/2011	10	10	0.06	ppm	NA	Erosion of natural deposits and runoff from fertilizer use, leaching from septic tanks, sewage
SELENIUM	3/9/09	50	50	1.08	ppb	NA	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
<b>Radioactive Regulated</b>							
GROSS ALPHA, INCLDING RA, EXCLDNG RN & U	10/29/09	15	15	0.55141	pCi/l	NA	Erosion of natural deposits
RADIUM, COMBINED (226, 228)	10/29/09	NA	5.0	0.376	pCi/l	NA	Erosion of natural deposits
URANIUM, COMBINED	10/29/09	NA	30	0.823	ppb	NA	Erosion of natural deposits
<b>Disinfection Byproducts Regulated</b>							
HALOACETIC ACIDS (HAA)	7/21/09	NA	60	ND	ppb	NA	By-product of drinking water Chlorination
TOTAL TRIHALO-METHANES (TTHM)	7/21/09	NA	80	0.64	ppb	NA	By-product of drinking water Chlorination
<b>Substances Unregulated</b>							
				<b>Secondary Standard</b>			
SODIUM (Na)	11/4/2011	NA	NA	59.2	ppm	NA	Erosion of natural deposits
SULFATE (SO4)	11/4/2011	NA	250	160	ppm	NA	Erosion of natural deposits
<b>Disinfectants</b>		<b>MRDLG</b>	<b>MRDL</b>				
CHLORINE (CHLORAMINES)	7/31/2011	4	4	3.0	ppm	2.2 to 3.26	Water additive used to control microbes; Chloramines are most commonly formed when ammonia is added to chlorine to treat drinking water.
<b>LEAD/COPPER REGULATED</b>	DATE	# Samples	AL	90 <sup>th</sup> Percentile	Samples Exceed AL	Units	
LEAD	6/11/09	20	15	14.9	2	ppb	Corrosion of household plumbing systems; Erosion of natural deposits
COPPER	6/11/09	20	1.3	0.0708		ppm	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

**THE CITY OF WAHPETON HAD NO VIOLATIONS IN 2011**

Additional copies available at City Hall at 1900 4<sup>th</sup> St. N or on the internet @ [www.wahpeton.com](http://www.wahpeton.com). Additional copies will **not** be mailed to individual customers