

# **THE 2014 ANNUAL DRINKING WATER REPORT FOR THE CITY OF GWINNER, NORTH DAKOTA**

The City of Gwinner, 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 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 on the source of our water, our treatment facilities, and processes. It is our daily goal to provide you with safe 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 questions regarding this report, please call Dennis Howey, our Water Superintendent, at (701) 678-2548. Questions will also be answered at our regularly scheduled council meeting, the first Monday of each month at 5:00 PM in the meeting room of the EMS building located at 4 1<sup>st</sup> Street S/E . If you are aware of non-English speaking individuals who need help with the appropriate translation, please call Mr. Howey at the number listed above.

The city currently uses ground water as its source and is obtained from the Gwinner Aquifer using two production wells. Our water treatment consists of iron and manganese removal and a reverse osmosis system for hardness and other contaminant removal. We have the ability to treat 220 gallons per minute. We also have in place a fluoridation plan. Our city's usage averages 150,000 gallons per day and our treatment plant is located at 221 6<sup>th</sup> Street South East.

The city of Gwinner is participating in the North Dakota Wellhead Protection Program. Relevant information on the Wellhead Protection plan is available during normal business hours at our city office and water treatment plant.

**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.**

**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)**

**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 and 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 the following 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:**

**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.

**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 the 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.

**Highest compliance level** – The highest level of that contaminant used to determine compliance with a National Primary Drinking Water Regulation.

**Range of Detections** – The lowest to the highest result value recorded during the required time frame for systems with multiple entry points.

The City of Gwinner routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2014. 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.

<b>TEST RESULTS FOR THE CITY OF GWINNER</b>								
	<u>Violation Yes/No</u>	<u>Level Detected</u>	<u>Range</u>	<u>Date (year)</u>	<u>Unit Measurement</u>	<u>MCLG</u>	<u>MCL</u>	<u>Likely Source of Contamination</u>
<b>Microbiological Contaminants</b>								
1. Total Coliform Bacteria	No	0		2014		0	1 per month for systems < 40,000	Naturally present in the environment
<b>Radioactive Contaminants</b>								
1. Radium 228	No	1.04	N/A	2010	pCi/l	0	5	Erosion of natural deposits
2. Uranium, combined	No	1.4	N/A	2010	ppb	0	30	Erosion of natural deposits
3. Gross Alpha Inc Ra Excludng RN & U	No	0.68	N/A	2010	pCi/l	15	15	Erosion of natural deposits
<b>Inorganic Contaminants</b>								
1. Arsenic	No	0.00107	ND To .00107	2010	ppm	0	0.01	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
<b>2. Copper</b>	No *	0.389 90th percentile	N/A	2013	ppm	AL=1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
3. Fluoride	No	1.37	N/A	2009	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
4. Nitrate+Nitrite (As N )	No	<0.03	N/A	2014	ppm	2	10	Run off from fertilizer use: leaching from septic tanks , sewage, erosion of natural deposits
<b>5. Lead</b>	No *	1.23 90 <sup>th</sup> percentile	N/A	2013	ppb	AL=15	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
6. Barium	No	0.00102	N/A	2009	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
<b>*No sites exceeded the copper or lead action level</b>								

Disinfection Byproducts		MCL	Date	Unit	High Comp	Range		
1. Total Trihalomethanes	No violations	System wide	80	2014	ppb	0	ND - 0	By-product of drinking water chlorination
2. Total Haloacetic Acids	No violations	System wide	60	2014	ppb	0	ND - 0	By product of drinking water chlorination
Disinfectants		MRDL	MRDLG	Date	Unit	High Comp	Range	
1. Chlorine	No violations	4	4	2014	ppm	2	0.76 To 3.98	Water additive used to control microbes

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.

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

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms, such as, nausea, cramps, diarrhea, and associated headaches.

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.

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).**

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 Gwinner is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. **Use water from cold water 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>.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than 6 months of age. Infants below the age of six months 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.

The City of Gwinner would appreciate it if large volume water customers post copies of the *Annual Drinking Water 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.

We the council and employee’s of the City of Gwinner are thankful to have the opportunity to provide this report to our customers. We at the City of Gwinner work 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.

**Mayor City of Gwinner**  
**Dan McKeever 678-2100**

**City Council Members**

**Christopher Ferderer 678-6835**  
**Linda Johnson 678-2011**

**Jerry Zetocha 678-2578**  
**Elroy Odegard 678-2736**

**Auditor City of Gwinner**  
**Jessica Peterson 678-2409**

**Water Superintendent**  
**Dennis Howey 678-2548 678-2564**

