

Annual Drinking Water Quality Report

Willard City

2010

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality of the water and services 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. Our water sources have been determined to be from groundwater sources. Our water sources are Upper Spring and 2003 North Well (grouped together) and 1995 Well.

The Drinking Water Source Protection Plan for Willard City is available for your review. It contains information about source protection zones, potential contamination sources and management strategies to protect our drinking water. Our sources have been determined to have a low level of susceptibility from potential contamination from sources such as wildlife. We have also developed management strategies to further protect our sources from contamination. Please contact us if you have questions or concerns about our source protection plan.

There are many connections to our water distribution system. When connections are properly installed and maintained, the concerns are very minimal. However, unapproved and improper piping changes or connections can adversely affect not only the availability, but also the quality of the water. A cross connection may let polluted water or even chemicals mingle into the water supply system when not properly protected. This not only compromises the water quality but can also affect your health. So, what can you do? Do not make or allow improper connections at your homes. Even that unprotected garden hose lying in the puddle next to the driveway is a cross connection. The unprotected lawn sprinkler system after you have fertilized or sprayed is also a cross connection. When the cross connection is allowed to exist at your home, it will affect you and your family first. If you'd like to learn more about helping to protect the quality of our water, call us for further information about ways you can help.

This report shows our water quality and what it means to you our customer.

If you have any questions about this report or concerning your water utility, please contact **Robert Bedeger at 435-734-9881**. 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 **2nd and 4th Thursday each month at 6:30pm at 80 W. 50 S. Willard.**

Willard City routinely monitors for constituents in our drinking water in accordance with the Federal and Utah State laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, **2010**. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

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:

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

ND/Low - High - For water systems that have multiple sources of water, the Utah Division of Drinking Water has given water systems the option of listing the test results of the constituents in one table, instead of multiple tables. To accomplish this, the lowest and highest values detected in the multiple sources are recorded in the same space in the report table.

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 (ug/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.

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.

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.

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 (MCL) - 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 (MCLG) - 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.

Date- Because of required sampling time frames i.e. yearly, 3 years, 4 years and 6 years, sampling dates may seem out-dated.

Waivers (W)- Because some chemicals are not used or stored in areas around drinking water sources, some water systems have been given waivers that exempt them from having to take certain chemical samples, these waivers are also tied to Drinking Water Source Protection Plans.

TEST RESULTS							
Contaminant	Violation Y/N	Level Detected ND/Low-High	Unit Measurement	MCLG	MCL	Date Sampled	Likely Source of Contamination
Microbiological Contaminants							

Total Coliform Bacteria	N	ND	N/A	0	Presence of coliform bacteria in 5% of monthly samples	2010	Naturally present in the environment
Fecal coliform and <i>E.coli</i>	N	ND	N/A	0	If a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	2010	Human and animal fecal waste
Turbidity for Ground Water	N	0	NTU	N/A	5	2010	Soil runoff
Radioactive Contaminants							
Alpha emitters	N	7	pCi/1	0	15	2009	Erosion of natural deposits
Combined radium	N	0-0	pCi/1	0	5	2009	Erosion of natural deposits
Radium 228	N	0	pCi/1	0	5	2009	Erosion of natural deposits
Inorganic Contaminants							
Antimony	Y	ND	ppb	6	6	2009	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	Y	ND	ppb	0	10	2009	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	Y	12-48	ppb	2000	2000	2009	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium	Y	ND	ppb	4	4	2009	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium	Y	ND	ppb	5	5	2009	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium	Y	ND	ppb	100	100	2009	Discharge from steel and pulp mills; erosion of natural deposits
Copper a. 90% results b. # of sites that exceed the AL	N	a.263-400 b.0	ppb	1300	AL=1300	2008	Corrosion of household plumbing systems; erosion of natural deposits
Cyanide	Y	ND	ppb	200	200	2009	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	Y	100	ppb	4000	4000	2009	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Lead a. 90% results b. # of sites that exceed the AL	N	a. 2 b.0	ppb	0	AL=15	2010	Corrosion of household plumbing systems, erosion of natural deposits
Mercury (inorganic)	Y	ND	ppb	2	2	2009	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate (as Nitrogen)	N	200-900	ppb	10000	10000	2009	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	Y	700	ppb	50	50	12/17/2010	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	N	3-6	ppm	None set by EPA	None set by EPA	2009	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
Sulfate	N	25-28	ppm	1000*	1000*	2009	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
Thallium	Y	ND	ppb	1	2	2009	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
TDS (Total Dissolved solids)	N	123-144	ppm	2000**	2000**	2009	Erosion of natural deposits
Disinfection By-products							
TTHM [Total trihalomethanes]	N	2	ppb	0	80	2007	By-product of drinking water disinfection

Inorganic Contaminants:

Antimony. Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.

Arsenic. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Barium. Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Beryllium. Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.

Cadmium. Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.

Chromium. Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.

Cyanide. Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.

Fluoride. Some people who drink water containing fluoride in excess of the MCL over many

years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

Mercury (inorganic). Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.

Selenium. Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.

Thallium. Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.

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. Willard City is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. 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 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>.

Chlorine Residual Monitoring (Code 27)

We periodically monitor for a Chlorine Residual in the distribution system to meet all regulatory requirements. In the 3rd quarter 2010 we failed to take the required samples. Testing for a Chlorine Residual is used to ensure that the public is provided with safe drinking water. This violation does not necessarily pose a health risk. We have reviewed why we failed to take the required samples and will take steps to ensure that it will not happen again.

Nitrate Chemical Monitoring (Code 03) (1040)

We periodically monitor for Nitrate in the water supply to meet all regulatory requirements. In 2010 we failed to take the required samples. Testing for Nitrate is used to ensure that the public is provided with safe drinking water. This violation does not necessarily pose a health risk. We have reviewed why we failed to take the required samples and will take steps to ensure that it will not happen again.

Pesticide Chemical Monitoring (Code 03) (CPES)

We periodically monitor for Pesticide chemical constituents in the water supply to meet all regulatory requirements. In 2010 we failed to take the required samples. Testing for Pesticide chemicals is used to ensure that the public is provided with safe drinking water. This violation does not necessarily pose a health risk. We have reviewed why we failed to take the required samples and will take steps to ensure that it will not happen again.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All 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 at 1-800-426-4791.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, 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.

Nitrates: As a precaution we always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply.

Lead: Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

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 (800-426-4791).

We at Willard City 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.

Willard City
80 W. 50 S.
Willard , Utah 84340

May 5, 2011

Patti Fauver
CCR Compliance
Division of Drinking Water
P.O. Box 144830
Salt Lake City, Utah 84114-4830

Dear Ms. Fauver:

Subject: Consumer Confidence Report for Willard City # 02024

Enclosed is a copy of Willard City Consumer Confidence Report. It contains the water quality information for our water system for the calendar year 2010 or the most recent sample data.

We have delivered this report to our customers by mailing it directly to each customer.

If you have any questions, please contact me at 435-734-9881.

Sincerely,

Robert Bedeger
Willard City