Annual Drinking Water Quality Report
Richmond City, Utah

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 source(s) have been determined to be from groundwater sources. Our water sources are a series of fresh flowing springs located in the mountains and a pumped well. (Homeland Security precludes a more detailed location description.)

The Drinking Water Source Protection Plan for Richmond 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 spills of materials along U. S. 91 (200 West); however, most of our sources are located in remote and protected areas that have a very low level of susceptibility to potential contamination sources. 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.

I'm pleased to report that our drinking water meets federal and state requirements. 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 Marlowe Adkins at 258-2092. 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 third Tuesday of each month at 7:00 p.m. in the Richmond City Council chambers, 6 West Main, Richmond.

Richmond 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:

Some terms that may help you understand the report:

Non-Detects (ND) - laboratory analysis indicates that the constituent 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.

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.

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.

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 *E.coli*	N	ND	N/A	0	If a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or *E. coli* positive	2010	Human and animal fecal waste
Turbidity for Ground Water	N	0 - 1	NTU	N/A	5	2006	Soil runoff
Radioactive Contaminants							
Alpha emitters	N	3.5	pCi/1	0	15	2009	Erosion of natural deposits
Radium 228	N	0.59	pCi/1	0	5	2009	Erosion of natural deposits
Inorganic Contaminants							
Antimony	N	ND	ppb	6	6	2009	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	N	.0056	ppb	0	10	2009	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Asbestos	N	ND	MFL	7	7	2004	Decay of asbestos cement water mains; erosion of natural deposits

Barium	N	0.128	ppb	2000	2000	2009	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium	N	ND	ppb	4	4	2009	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium	N	ND	ppb	5	5	2009	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium	N	ND	ppb	100	100	2009	Discharge from steel and pulp mills; erosion of natural deposits
Copper 90% results # of sites that exceed the **AL**	N	64	ppb	1300	AL=1300	2009	Corrosion of household plumbing systems; erosion of natural deposits
Cyanide	N	ND	ppb	200	200	2009	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	N	0.3	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	)5	ppb	0	AL=15	2009	Corrosion of household plumbing systems, erosion of natural deposits
Mercury (inorganic)	N	ND	ppb	2	2		Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate (as Nitrogen)	N	0.8 - 6.8	ppb	10000	10000	2009	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	.0014	ppb	50	50	2009	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	N	26.7	ppm	None set by EPA	None set by EPA	2009	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
Sulfate	N	19	ppm	1000*	1000*	2009	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
Thallium	N	ND	ppb	1	2	2009	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
TDS (Total Dissolved solids)	N	513	ppm	2000**	2000**	2009	Erosion of natural deposits
*If the sulfate level of a public water system is greater than 500 ppm, the supplier must satisfactorily demonstrate that: a) no better water is available, and b) the water shall not							

be available for human consumption from commercial establishments. In no case shall water having a level above 1000 ppm be used. **If TDS is greater than 1000 ppm the supplier shall deomonstrate to the Utah Drinking Water Board that no better water is available. The Board shall not allow the use of an inferior source of water if a better source is available.							
Disinfection By-products							
HM [Total trihalomethanes]	N	5.2	ppb	0	80	2009	By-product of drinking water disinfection
Haloacetic Acids	N	4.1	ppb	0	60	2009	By-product of drinking water disinfection
Chlorine	N	0.20	ppm	4	4	2009	Water additive used to control microbes

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 constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

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. As a precaution we will 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.

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 Richmond 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.