



## ANNUAL DRINKING WATER QUALITY REPORT

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 is classified as both groundwater and surface water which we get from two wells and Central Weber Basin.



### SOURCE PROTECTION PLAN

The Drinking Water Source Protection Plan for Riverdale 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 are located in remote and protected areas and have a 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.

### CROSS CONNECTION CONTROL

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.

### QUESTIONS

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 Shawn Douglas at 801-394-5541 ext. 1217.

### PLEASE ATTEND

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 first and third Tuesdays of every month beginning at 6:00 p.m. located at the Riverdale City Civic Center, 4600 S. Weber River Drive, Riverdale, Utah. The dates, times and locations sometimes change, so please call for current information. Water related issues are not always on the agenda, please check the agenda in advance.

### TEST RESULTS

We are pleased to report that our drinking water meets federal and state requirements.

Riverdale 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 1<sup>st</sup> to December 31<sup>st</sup>, 2010 or the most recent sample data. 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.

## DEFINITIONS OF TERMS AND ABBREVIATIONS



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.

**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.

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

**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.

**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.

## CONSTITUENT TABLE - TEST RESULTS

Contaminant	Violation Y/N	Level Detected ND/Low-High	Unit Measurement	MCLG	MCL	Date Sampled	Likely Source of Contamination
<b>Microbiological Contaminants</b>							
Total Coliform Bacteria	N	ND	N/A	0	*See Below	2010	Naturally present in the environment
*Presence of coliform bacteria in 5% of monthly samples							
Fecal coliform and E.coli	N	ND	N/A	0	**See Below	2010	Human and animal fecal waste
**If a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or E.coli positive							
<b>Radiological Contaminants</b>							
Alpha emitters	N	1-4	pCi/1	0	15	2009	Erosion of natural deposits
Radium-228	N	0-1	pCi/1	0	5	2009	Erosion of natural deposits
<b>Inorganic Contaminants</b>							
Antimony	N	600	ppt	6,000	6,000	2010	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	N	0-1	ppb	0	10	2010	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production waste

**TEST RESULTS (Continued)**

Contaminant	Violation Y/N	Level Detected ND/Low-High	Unit Measurement	MCLG	MCL	Date Sampled	Likely Source of Contamination
Barium	N	204-267	ppb	2,000	2,000	2010	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Carbon, Total Organic (TOC)	N	1-4	ppm	NA	TT	2010	Naturally present in the environment
Copper a. 90% results b. # of sites that exceed the AL	N	a. 145 b. N/A	ppt	1,300,000	AL=1,300,000	2009	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	N	100	ppb	4,000	4,000	2010	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. N/A	ppt	0	AL=15,000	2009	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	N	225-1,309	ppb	10,000	10,000	2010	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	200-800	ppt	50,000	50,000	2010	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	N	17-20	ppm	20	None set by EPA	2010	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
Sulfate	N	19	ppm	1,000	1,000	2009	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
Thallium	N	800-1,000	ppt	500	2,000	2010	Leaching from ore processing sites; discharge from electronics, glass, and drug factories
Total Dissolved Solids (TDS)	N	235	ppm	2,000	2,000	2009	Erosion of natural deposits

**Disinfection By-products**

Bromate	N	490	ppb	0	10	2005	Bromate is formed when ozone used to disinfect drinking water reacts with naturally occurring bromide found in source water.
Haloacetic Acids (HAA5)	N	1-5	ppb	0	60	2009	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	N	1-8	ppb	0	80	2009	By-product of drinking water disinfection

**LEAD**

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. Riverdale 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>.

**SAFE 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 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 are 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.

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 Riverdale 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.

**CONTACT INFORMATION**

Please call our office if you have questions.

Contact person:

Shawn Douglas  
801-394-5541  
Ext. 1217

Riverdale City  
4600 S. Weber River Dr.  
Riverdale, Utah 84405

**SOURCE WATER PROTECTION ZONES**

The majority of Riverdale land sits on top of a water aquifer which is used for our drinking water. Riverdale operates two wells within the city. There are also several wells operated by Weber Basin Water. The areas above these aquifers are Source Water Protection Zones.



Source Water Protection Zones have been set up to help protect our drinking water from being contaminated. Once a drinking water source becomes contaminated, the water must be treated. If it cannot be treated, a new source must be found. Both options are very expensive and the cost of doing so must be passed on to the customers. It is far better to protect our drinking water from contamination in the first place.

The best way to protect our drinking water source is through education. Everyone needs to realize that what is poured onto or spread upon the ground will seep into the soil and can eventually find its way into our drinking water source. Even a small amount of a contaminant, such as motor oil, will seep into the ground. It may take years to find its way to the ground water but it will get there. Listed below are ways you can help protect our drinking water.

- Never pour used oil, antifreeze, solvents, oil based paints, or hazardous chemicals onto the soil. Dispose of them properly through the Weber County landfill.
- Do not over-fertilize. An overabundance of fertilizer will seep through the soil and into the drinking water.
- Do not use excessive amounts of pesticides.

You may find out more by visiting the following websites:

- [www.deq.state.ut.us/eqdw/source\\_protection\\_intro.htm](http://www.deq.state.ut.us/eqdw/source_protection_intro.htm)
- [www.epa.gov/safewater/protect.html](http://www.epa.gov/safewater/protect.html)

**ARE YOU JEOPARDIZING YOUR DRINKING WATER?**

Every effort is made by the city to ensure that the water coming into your home is safe to drink. But your own actions may jeopardize those efforts, unless you have taken the right steps and installed backflow prevention devices.



Backflow prevention is accomplished by installing a device that prohibits water from backflowing from one area to another. The backflow occurs when there is negative pressure in the line and water is sucked from one source to another. This means that water from an unprotected lawn sprinkler system may be sucked into the water lines in your home and contaminate your drinking water. Unknowingly drinking the contaminated water could result in sickness or even death.

To protect yourself, install backflow prevention devices on your lawn sprinkler system and on all outside hose bibs. It really isn't worth taking the chance of not doing it. For more information call Shawn Douglas at 801-394-5541 ext. 1217.

**DON'T DUMP WASTE IN STORM DRAINS**

According to the Utah Division of Wildlife Resources the water quality of the Weber River has declined and is getting worse. Part of the reason is people who dump wastes into storm drains.

Anything that is washed into the gutter will end up in the storm drain system and drain directly into the Weber River. Examples of contaminants include: draining a radiator and washing the antifreeze into the gutter, cleaning a paint brush in the gutter, and excess lawn fertilizer washed into the gutter.

Please exercise caution and remember, storm drains are for excess rain runoff, not for dumping waste.