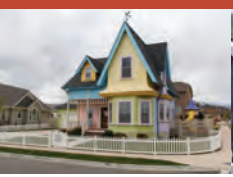
CONSUMER CONFIDENCE

# Annual Drinking Water Quality Report 2015



HERRIMAN CITY

# SAFE DRINKING WATER

**Water emergency preparedness:**
Water will keep you alive. If you have enough water, you can live on half of your normal food intake. Make sure to store at least one gallon of water per person per day. Store enough water to last two weeks. People in hot environments, children, nursing mothers and people who are ill should store more water. Rotate your water supply every six months.

**Preservation at home in an earthquake:**
Your water heater can be a critical source of water in an emergency, but only if it's standing. Go to your home improvement store of choice and purchase a kit to secure the water heater to nearby studs. A falling water heater can break gas lines, water lines and spill your precious water.

**Other sources of water in your home:**
Ice Cubes, Water Pipes and Water Tank from your toilets.

## Emergency preparedness resources

**Be Ready Utah**
www.beready.utah.gov/beready/family/water.html

**FEMA**
www.ready.gov/water

**Salt Lake Valley Health**
www.slcohealth.org/programs/emergencypreparedness/index.html

**Herriman City**
www.herriman.org/be-ready-herriman

# WATER CONSERVATION:

Water Conservation has become a new way of life. Water Conservation habits that are developed when there is ample snowpack will help sustain the water supply through growth and dry years. Herriman City Municipal Water suggests the continuation of the following water conservation habits:


Water between 6 p.m. and 10 a.m.

Adjust watering frequency according to the weather and season

Check and repair leaking pipes, hoses, sprinklers and toilets

Install water saving shower heads and toilets

Do not use toilets as a wastebasket

Use a broom to clean driveways and sidewalks


# CROSS CONNECTIONS AND YOU!

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 allow polluted water or even chemicals to mingle into the water 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. Make sure to have your back flow assembly tested annually and send the test results to Herriman City in addition to keeping a copy for your records. If you'd like to learn more about helping to protect the quality of our water, please visit our website or call us for further information about ways you can help.

Herriman City routinely monitors for constituents in our drinking water in accordance with the Federal and Utah State laws. The following tables show the results of our monitoring for the period of January 1st to December 31st, 2015.

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.

**PWSID No. 18157**

| Contaminant | Violation Y/N | Level Detected ND/Low-High | MCLG | MCL | Date Sampled | Likely Source of Contamination |
|---|---|---|---|---|---|---|
| **MICROBIOLOGICAL CONTAMINANTS** | | | | | | |
| **Total Coliform Bacteria+** | N | 0 | 0 | Presence of coliform bacteria in 5% of monthly samples | 2015 | Naturally present in the environment |
| **Fecal coliform and E.coli** | N | 0 | 0 | If a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive | 2015 | Human and animal fecal waste |
| **Turbidity for Ground water** (NTU) | N | 0-7 | N/A | 5 | 2012 | Soil runoff |
| **Turbidity for Surface Water** (NTU) | N | 0.08 | N/A | 0.5 in at least 95% of the samples and must never exceed 5.0 | 2014 | Soil Runoff (highest single measurement & the lowest monthly percentage of samples meeting the turbidity limits) |
| **INORGANIC CONTAMINANTS** | | | | | | |
| **Arsenic** (ppt) | N | 2200-6400 | 0 | 10 ,000 | 2012 | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes |
| **Barium** (ppb) | N | 28-203 | 2000 | 2000 | 2012 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| **Copper** (ppt)<br>**a. 90% results**<br>**b. # of sites that exceed the AL** | N | a. 398<br>b. 0 | 1300000 | AL=1300000 | 2014 | Corrosion of household plumbing systems; erosion of natural deposits |
| **Fluoride** (ppb) | N | 200-1000 | 4000 | 4000 | 2012 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| **Lead** (ppt)<br>**a. 90% results**<br>**b. # of sites that exceed the AL** | N | a. 3<br>b. 0 | 0 | AL=15000 | 2014 | Corrosion of household plumbing systems, erosion of natural deposits |
| **Nitrate (as Nitrogen)** (ppb) | N | 661-4180 | 10000 | 10000 | 2015 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| **Selenium** (ppb) | N | ND-3700 | 50000 | 50000 | 2012 | Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines |
| **Sodium** (ppm) | N | 6-80 | None set by EPA | None set by EPA | 2012 | Erosion of natural deposits; discharge from refineries and factories; runoff from landfills. |
| **Sulfate*** (ppm) | N | 3-403 | 1000 | 1000 | 2012 | Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland |
| **TDS ** (Total Dissolved Solids)** (ppm) | N | 416-1,010 | 2000 | 2000 | 2012 | 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 1,000 ppm be used.

**If TDS is greater than 1,000 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**

| Contaminant | Violation Y/N | Level Detected ND/Low-High | MCLG | MCL | Date Sampled | Likely Source of Contamination |
|---|---|---|---|---|---|---|
| **Haloacetic Acids** (ppb) | N | 1.68-44.5 | 60 | 60 | 2015 | By-product of drinking water disinfection |
| **Total Trihalomethanes** (ppb) | N | 8.5-70.1 | 0 | 80 | 2014 | By-product of drinking water disinfection |
| **Chlorine** (ppb) | N | 500 | 4000 | 4000 | 2014 | Water additive used to control microbes |

**RADIOACTIVE CONTAMINANTS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Alpha emitters** (pCi/1) | N | 2.1-8.4 | 0 | 15 | 2015 | Erosion of natural deposits |
| **Radium 228** (pCi/1) | N | 0.5-1 | 0 | 5 | 2015 | Erosion of natural deposits |

**TABLE DEFINTIONS**

**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.

**Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.

**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.

**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.

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.

*Herriman City*
*13011 South Pioneer Street*
*Herriman, UT 84096*

## WATER HARDNESS

**What is water hardness?**
Water hardness is one of the most common water quality concerns by consumers. Water that is considered to be "hard" is high in dissolved minerals, specifically calcium and magnesium.

Many appliances such as dishwashers and washing machines have a setting to adjust for the hardness of water, usually the hardness setting for these appliances are generally measured in grains per gallon.

In grains per gallon, water hardness is classified as follows:

· Less than 4 grains per gallon is considered to be Soft.

· 4-7 grains per gallon is considered to be Moderately Hard.

· 7-10 grains per gallon is Hard.

· Greater than 10 grains per gallon is Very Hard.

**Is hard water safe to Drink?**
Yes, hard water is safe to drink and to use for cooking and cleaning and is not a health risk. Actually hard water contains some minerals which make it healthier to drink. Some people say it tastes better than softened water. The US Environmental Protection Agency doesn't consider hard water a health risk and there are no testing standards or limits set for hardness.

**What are signs of hard water in my home?**
Hard water can be a nuisance in many ways. You may notice an accumulation of white/chalky deposit on items such as plumbing fixtures, tubs, sinks, pots and pans.

Other things you may notice include:

· Increased difficulty in cleaning and laundering tasks.

· Decreased efficiency of water heaters.

· White spots on glassware.

· White spots on your car after washing.

· Soap scum on bathtubs, and shower tiles.

· It is more difficult to remove soap when washing and bathing.

**Is there anything I can do to remove hardness?**
If you remove calcium and magnesium from water it generally makes the water softer. The two most common processes to remove calcium and magnesium from the water are 1. Reverse osmosis filtration, and 2. Ion Exchange. Reverse osmosis filtration units can handle only small volumes of water and are usually installed at the kitchen sink. Ion exchange units can treat large volumes of water and are typically installed to treat either, all of the water entering the residence or just the hot water supply.

An alternative to a system softener or hot water softener is to use liquid and powdered softeners. These can be added to dishwashing machines or laundry machines on a per load basis, to soften the water, reduce the amount of soap or detergent, and reduce spotting on dishware.

**HERRIMAN CITY 2015 HARDNESS TEST**

| Herriman City Well Sites | Grains Per Gallon | Milligrams Per Liter or Parts Per Million |
|---|---|---|
| **Hamiltion Well** | 40-45 Grains | 684.7-770.3 mg/l |
| **Well #1** | 30-35 Grains | 513.5-599.1 mg/l |
| **Well #3** | 20-25 Grains | 342.3-427.9 mg/l |
| **Well #4** | 20-25 Grains | 342.3-427.9 mg/l |
| **Jordan Valley water** | 10-15 Grains | 171.1-256.7 mg/l |
| **Anold Hollow Springs** | 10-15 Grains | 171.1-256.7 mg/l |
| **Stillman Well** | 40-45 Grains | 684.7-770.3 mg/l |

**FLUORIDATION:**
In accordance with the Salt Lake Valley Health Department, Herriman City Municipal Water has been adding fluoride to your drinking water since January 1, 2006. The amount added by Herriman City Municipal Water combined with the naturally occurring fluoride in your water, provide a concentration level of approximately 0.7 mg/l at your tap.

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.

**HEALTH INFORMATION ABOUT YOUR WATER**

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. Herriman 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.

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).

# THE CITY OF HERRIMAN WORKS HARD TO PROVIDE QUALITY WATER!

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 put great effort in continual improvement of the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water sources include the Jordan Valley Water Conservancy District, five wells and one spring.

# DRINKING WATER SOURCE PROTECTION PLAN

The Drinking Water Source Protection Plan for Herriman City is available for your review. It contains information about source protection zones, potential contamination sources and management strategies to protect our drinking water. Potential contamination sources common in our protection areas are residential areas. Our source has a low susceptibility to potential contamination. 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.

Herriman City
13011 S Pioneer Street
Herriman, Utah 84096



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

**Questions or concerns**

If you have any questions about this report or concerning your water utility, please contact Justun Edwards at 801-446-5323. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our city council meetings. They are held on every 2nd & 4th Wednesday at 7:00 PM.