

# Annual Drinking Water Quality Report -2016-

Heber City Municipal Water System  
749 West 300 South  
Heber City, Utah 84032

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. Heber City's water supply is extracted and stored exclusively from the northeastern quadrant of the community which is on the easternmost fringe of the Great Basin Carbonate and Alluvial Aquifer System (GBCAAS). All of the City's culinary water supply is derived from ground water sources located at Broadhead Spring & Well, Hospital Well and Valley Hills Well Pump Facilities and distributed to five individual pressure zones within Heber City.

## **SOURCE PROTECTION PLAN**

The Drinking Water Source Protection Plan for the Heber City Municipal Water Supply is available for your review. It contains information about source protection zones, potential contamination sources and management strategies to protect our drinking water. The Heber Valley's continued appeal and popularity made it one of the fastest growing areas in the United States in 2016. As the surrounding undeveloped and previously unsewered agricultural areas develop and connect to public sewer systems, the potential threat of drinking water source contamination has been significantly reduced. Since Heber City's commercial and industrial growth has been primarily zoned and remotely located down gradient from the City's water production and storage facilities, the City's State mandated Wellhead Protection Program has been effectively instituted, leaving commercial and industrial development to pose very little threat to the quality of the community's water supply as well. We have also developed management strategies to further protect our sources from contamination. Please contact Heber City's Engineering Department (435) 654-0757 located at 75 North Main Street, in Heber City Hall, 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 chemicals migrate 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. Heber City's ongoing water service replacement and meter vault upgrade program, funded by monthly water use fees, is serving to dramatically limit the potential of cross connection contamination with the installation of Utah State certified backflow prevention hardware.

## **WATER SYSTEM UPGRADES FOR 2015**

All Utah community water production, storage and distribution facilities are inspected every three years by State authorized and certified inspectors, relative to a number of established health and welfare criteria, contained within what's more commonly referred to as a Sanitary Survey. Those specific criteria monitor Heber City Public Works' accountability for safeguarding the community's water system from the potential of unauthorized access or any intentional or inadvertent contamination of the community's water supply. Any observed shortcomings or compromises within the system are specifically referred to as significant deficiencies within the survey, are assigned point values based upon the threat that each criteria potentially poses to the consumer should the integrity of the system remain compromised and left unresolved beyond a reasonable time frame. This past year, Public Works water distribution system administration has focused their efforts on improving water quality and conservation by replacing failing and undersized water mains in Old Heber, principally along Main Street, prior to the implementation of major highway and street improvement projects. Another focus has been reconfiguring water distribution system delivery routes from storage facilities and the installation of

additional water transmission mains, thereby improving the systems hydraulics, flow characteristics and profiles to elevated properties within the community, such as Valley Hills Subdivision. These properties have previously relied upon in line pressure boosting pumps, which while optimizing their homes operational water pressure levels, simultaneously risks compromising the integrity of not only their home, but all those connected to the same water system. These water distribution system improvements when completed this year, should successfully increase water supply system pressures sufficiently to reduce the probability and consequences of unregulated backflow and undetected secondary water cross connections. We are pleased to report that our drinking water continues to meet all federal and state requirements.

## 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 your Heber City Public Works Department at (435) 654-3275, located at 749 West 300 South.

## 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 Heber City Council meetings. Meetings are typically held at 7:00 PM on the 1<sup>st</sup> and 3<sup>rd</sup> Thursday of each month, upstairs in the Heber City Hall Council Chambers. The Heber City Public Works Department routinely monitors its municipal water supply for contaminants in our drinking water in accordance with all 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>, 2016 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 contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

## CONTAMINANT TABLE DEFINITIONS

**In the following table you will find many terms and abbreviations with which you might not be familiar. To help you better understand these terms we've provided the following definitions:**

**Non-Detects (ND)** - Laboratory analysis indicates that the contaminant 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 contaminants 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 some other form of removal.

**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.

## 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. Heber City Public Works Department 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

It can be viewed within the Violations Table segment at the conclusion of the following page, that during this past year, Heber City had one minor monitoring violation this past November, when the second set of water samples for the month were collected, but failed to be delivered to the chemistry lab within the time constraints allotted by regulation. We have learned through our monitoring and testing that some contaminants have been detected within our drinking waters, at levels below the action or maximum contaminant level and as such, been determined by EPA that your water IS SAFE at these levels.

All sources of drinking water are subject to potential contamination by contaminants that are naturally occurring or are man-made. Those contaminants 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 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.

**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 Heber City Public Works Department 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.

## Source Water Information

Source Water Name	Type Of Water	Source ID
BROADHEAD SPRING	GW	WS001
BROADHEAD WELL	GW	WS003
VALLEY HILLS WELL	GW	WS004
HOSPITAL WELL	GW	WS005

## TCR Tables

Coliform Bacteria	Year Sampled	+ Sample Count	MCLG	MCL	Violation	Likely Source of Contamination
Coliform Bacteria	2016	0	0	5	N	Naturally present in the environment.

## Lead And Copper

	Year Sampled	MCLG	Action Level (AL)	90% tiles	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2016	1.3	1.3	1.17	1	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2016	0	15	3.8	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

## Regulated Contaminants

Disinfectants and Disinfection By-Products	Year Sampled	Lowest Level	Highest Level	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids	2016	0	2.4	0	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes	2016	2.3	15.7	0	80	ppb	N	By-product of drinking water disinfection.

Inorganic Contaminants	Year Sampled	Lowest Level	Highest Level	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2013, 2014	1.8	2.3	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2013, 2014	0.216	0.283	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2013, 2014	0	0.2	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	2012, 2016	1	1.7	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Run Date: 06/26/2017 16:48:03 | Rating: Approved UTAH26006 HEBER CITY WATER SYSTEM

Page 4 of 5

## DEQ | Drinking Water

Selenium	2013, 2014	0	0.8	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Sodium	2013, 2014	7.6	11.7	500	None	ppm	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Sulfate	2013, 2014	9	19	1000	1000	ppm	N	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
Total Dissolved Solids (TDS)	2013, 2014	228	300	2000	2000	ppm	N	Erosion of natural deposits

Lead and Copper	Year Sampled	Lowest Level	Highest Level	MCLG	MCL	Units	Violation	Likely Source of Contamination
Copper	2016	0.123	1.51	1.3	1.3	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2016	0	8.4	0	15	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Radioactive Contaminants	Year Sampled	Lowest Level	Highest Level	MCLG	MCL	Units	Violation	Likely Source of Contamination
Alpha emitters	2014	0.7	1	0	15	pCi/L	N	Erosion of natural deposits.
Radium 228	2014	-0.22	0.31	0	5	pCi/L	N	Erosion of natural deposits.

Turbidity	Year Sampled	Lowest Level	Highest Level	MCLG	MCL	Units	Violation	Likely Source of Contamination
Turbidity	2013, 2014	0.05	0.76	0	0.3	NTU	N	Soil runoff.

## Violations Table

## Consumer Confidence Rule

Violation Type	Violation Begin	Violation End	Facility
CCR REPORT	2015-07-01	2016-01-09	

## E. coli

Violation Type	Violation Begin	Violation End	Facility
MONITORING, ROUTINE, MINOR (RTCR)	2016-11-01	2016-11-30	

Run Date: 06/26/2017 16:48:03 | Rating: Approved UTAH26006 HEBER CITY WATER SYSTEM

Page 5 of 5