

Annual Drinking Water Quality Report – 2016 for Mapleton City

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 Seal, Carnesecca, Westwood, Crowd Canyon Wells and Dunham, Right hand Fork and Serviceberry Springs.

The Drinking Water Source Protection Plan for Mapleton 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 Well sources have been determined to have a low level of susceptibility from 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.

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.

If you have any questions about this report or concerning your water utility, please contact Brad Roundy at 801-489-6253. 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 first and third Wednesday of each month at 7:00 pm, at the Mapleton City Offices.

Mapleton 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, 2016. 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.
- **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.
- **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.

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	Y	0	N/A	0	Presence of coliform bacteria in 5% of monthly samples	2016	Naturally present in the environment
Fecal coliform and E.coli	N	0	N/A	0	If a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive	2016	Human and animal fecal waste
Turbidity		4	NTU	5	5	2016	Soil Runoff
Inorganic Contaminants							
Arsenic	N	600	ppt	0	10000	2013	Erosion of natural deposits, Runoff from orchards, Runoff from glass and electronics production wastes.
Barium	N	37-102	ppb	2000	2000	2016	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits

Copper a. 90% results b. # of sites that exceed the AL	N	a.225 b.	ppb	1300	AL=1300	2015	Corrosion of household plumbing systems; erosion of natural deposits
Lead a. 90% results b. # of sites that exceed the AL	N	a.7.1 b.	ppb	15	AL=15	2015	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	N	4	ppm	10	10	2016	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	1	ppb	50	50	2016	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	N	3-13	ppm	500	None set by EPA	2016	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
Sulfate	N	7-37	ppm	1000	1000	2016	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
TDS (Total Dissolved solids)	N	166-310	ppm	2000	2000	2016	Erosion of natural deposits
Radioactive Contaminants							
Alpha emitters	N	0-6.2	pCi/l	0	15	2016	Erosion of natural deposits
Combined	N	1.3-1.7	pCi/l	0	5	2016	Erosion of natural deposits
Radium 226	N	0.65-1.3	pCi/l	0	5	2016	Erosion of natural deposits
Radium 228	N	0.33-1	pCi/l	0	5	2016	Erosion of natural deposits

We constantly monitor for various constituents in the water supply to meet all regulatory requirements. In May 2016 we failed to perform all the required tests for coliform bacteria. Water quality may change without any visible indication due to unanticipated environmental factors. For this reason, we are required to sample for coliform bacteria on a monthly basis. This violation does not necessarily pose a health risk. We have reviewed why we failed to take our routine coliform bacteria tests and have taken steps to ensure that it will not happen again

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 from their health care providers about drinking water. 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 Mapleton 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.

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

Subject: Consumer Confidence Report for Mapleton City, System No. 25018

Enclosed is a copy of Mapleton City's Consumer Confidence Report. It contains the water quality information for our water system for the calendar year 2016 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 801-489-6253.

Sincerely,
Brad Roundy – Mapleton City