

PAROWAN CITY CORPORATION

Annual Drinking Water Quality Report

2019

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 one spring and two wells.

Source Protection: The Drinking Water Source Protection Plan for Parowan 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 to medium 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.

Cross Connection Information: 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, especially 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.

We're 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 either Kelly Stones, our Public Works Director. 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. City Council meetings are held on the 2nd and 4th Thursdays of each month at 6:00 pm in the City Office Council room. Water Board meetings are held on the 2nd Wednesday of each month at 6:00 pm in the Council room.

Parowan City routinely monitors for constituents in our drinking water in accordance with Federal and Utah State laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, 2019. 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.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

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 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

Microbiological Contaminants

Contaminant	Violation Y/N	Level Detected ND/Low-High	Unit Measurement	MCLG	MCL	Date Sampled	Likely Source of Contamination
Total Coliform Bacteria	N	1	N/A	0	Presence of coliform bacteria in 5% of monthly samples	2019	Naturally present in the environment
Fecal Coliform and <i>E.coli</i>	N	0	N/A	0	If a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E.coli</i> positive	2019	Human and animal fecal waste
Turbidity for Ground Water	N	0.09 – 0.39	NTU	N/A	5	2016	Soil runoff

Radioactive Contaminants

Alpha emitters	N	ND – 1.5	pCi/l	0	15	2019	Erosion of natural deposits
Radium 228	N	ND – 1.4	pCi/l	0	5	2019	Erosion of natural deposits

Inorganic Contaminants

Arsenic	N	1.7	ppb	0	10	2019	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	N	0.035	ppm	2	2	2019	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine	N	0.6	ppm	4	4	2019	Water additive used to control microbes.
Copper a. 90% results b. # of sites that exceed the AL	N	a. 0.12 b. 0	ppm	0	AL=1.3	2018	Corrosion of household plumbing systems; erosion of natural deposits
Cyanide	N	ND – 2	ppb	200	200	2016	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	N	0.136-0.576	ppm	4	4	2019	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. 5.7 b. 0	ppb	0	AL=15	2018	Corrosion of household plumbing systems; erosion of natural deposits

Nitrate (as Nitrogen)	N	ND – 0.202	ppm	0	10	2019	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	0.5-0.6	ppb	50	50	2019	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Sodium	N	30-38	ppm	None set by EPA	None set by EPA	2019	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills
Sulfate	N	38-66	ppm	1000*	1000*	2019	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
TDS (Total Dissolved solids)	N	332-432	ppm	2000**	2000**	2019	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 demonstrate 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 Bi-products

TTHM (Total trihalomethanes)	N	1.6	ppb	0	80	2019	By-product of drinking water disinfection
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Microbiological Contaminants:

Total Coliform - Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Turbidity - Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Radioactive Contaminants:

Alpha emitters - Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Combined Radium- 226/228. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Inorganic Contaminants.

Arsenic - Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Barium - Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Copper - Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Lead - Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Nitrate - Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Sodium - Sodium is an essential nutrient. However, some people who drink water containing sodium in excess of the MCL may experience health problems.

Sulfate - High levels of sulfates in the drinking water may cause some people to have stomach problems.

TDS (Total Dissolved Solids) - TDS is an aesthetic water quality problem; however, high levels may cause some people to experience health problems.

TTHMs (Total Trihalomethanes) - Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

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.

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. Parowan 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>.

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 Parowan 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.

May 27, 2020

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

Dear Mr. Smith:

Subject: Consumer Confidence Report for Parowan City- #11010

Enclosed is a copy of Parowan City Consumer Confidence Report. It contains the water quality information for our water system for the calendar year 2019 or the most recent sample data.

We have delivered this report to our customers by:

We include it in our bi-monthly newsletter that goes out to all of our customers. We also state on our monthly water bill that we will send a copy to those that request it. We will also allow them to pick up a copy at the City Office.

If you have any questions, please contact me at (435) 477-3331.

Sincerely,

Kelly Stones,
Parowan City.