

Annual Drinking Water Quality Report Washington City 2023

We are 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 and surface water sources. Our water sources come from 11 wells, Quail Creek, Sand Hollow, Virgin River and Washington County Water Conservancy District.

The Drinking Water Source Protection Plan for Washington 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 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 Lester Dalton 435-656-6317. 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 second and fourth Wednesday of each month at 6:00 pm.

Washington City routinely monitors 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, 2023. 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.

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.

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

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 outdated.

TEST RESULTS							
Contaminant	Violation YIN	Level Detected ND/Low-High	Unit Measurement	MCL G	MCL	Date Sampled	Likely Source of Contamination
Microbiological Contaminants							
Total Coliform Bacteria	N	1	NIA	0	Presence of coliform bacteria in 5% of monthly samples	2023	Naturally present in the environment
<i>E.coli</i>	N	ND	NIA	0	If a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	2023	Human and animal fecal waste
Turbidity for Ground Water	N	ND-2	NTU	NIA	3	2023	Soil Runoff
Turbidity for Surface Water	N	0.18	NTU	NIA	0.5 in at least 95% of the samples and must never exceed 5.0	2023	Soil Runoff (highest single measurement & the lowest monthly percentage of samples meeting the turbidity limits)
Inorganic Contaminants							
Arsenic	N	3-4	ppb	0	10	2023	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	N	0.005-0.11	ppb		2000	2023	Discharge of drilling wastes: discharge from metal refineries; erosion of natural deposits

Carbon, Total Organic (TOC)	N	2-3	ppm	NA	TT	2022	Naturally present in the environment
Copper a. 90% results b. # of sites that exceed the AL	N	a. 52 b. 0	ppb	1300	AL=1 300	2021	Corrosion of household plumbing systems erosion of natural deposits
Fluoride	N	0.2-0.29	ppb	4000	4000	2023	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	ND 0	ppb	0	AL=1 5	2021	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	N	0.18-2	Ppm	10	10	2023	Runoff From fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	1-6	ppb	50	50	2022	Discharge from petroleum and metal refineries· erosion of natural deposits: discharge from mines

Sodium	N	8-13	ppb	500	None set by EPA	2023	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
Sulfate	N	32-95	ppm	1000	1000	2023	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from Crop land
TDS (Total Dissolved solids)	N	210-310	ppm	2000	2000	2023	Erosion of natural deposits
Disinfection By-products							
TTHM [Total trihalomethanes]	N	3-42	ppb	0	80	2022	By-product of drinking water disinfection
Haloacetic Acids	N	3-42	ppb	0	60	2022	By-product of drinking water disinfection
Chlorine	N	800	ppb	4000	4000	2022	Water additive used to control microbes
Radioactive Contaminants							
Alpha emitters	N	-4-2	pCi/1	0	15	2023	Erosion of natural deposits
Combined	N	0.03-2	pCi/1	0	5	2023	Erosion of natural deposits
Radium 226	N	0.43-0.4	pCi/1	0	5	2023	Erosion of natural deposits
Radium 228	N	-0.24-2	pCi/1	0	5	2023	Erosion of natural deposits
Uranium	N	1-3	Ppb	0	30	2022	Erosion of natural deposits

* We get surface water from Washington County Water Conservancy District, which samples for and contains arsenic. While your drinking water meets EPA's standard for arsenic, it does contain levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

*Water Hardness: Southern Utah water sources generally range from hard (7-10 grains per gallon (gpg), 120-180 ppm) to very hard (over 10 gpg, over 180 ppm), this is due to the high amounts of non-toxic calcium or magnesium minerals. Although hard water does not pose a health risk, it can cause a number of plumbing, maintenance and household cleaning issues. Customers may decide to use water treatment devices, such as water softeners, to remove the calcium and magnesium from tap water to produce soft water for household use. If a customer does decide to set up their own personal water use treatment device, use the hardness ranges mentioned above as a general starting point.

Unregulated Contaminant Monitoring Detections (UCMR)

The EPA uses a set of rules called the Unregulated Contaminant Monitoring Rule (UCMR) to check for substances in drinking water that aren't controlled by existing rules. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Unregulated Contaminant Monitoring

Lithium	29.1
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Lithium

Lithium is a natural metal that can be found more in certain places, especially in the groundwater of dry areas in the Western U.S. People have been using lithium in medicines for a long time to help with certain health issues. Even though we know a lot about using lithium in medicine, There's not much information about the health risks for people who get small amounts of lithium from drinking water, which is way less than what's used in medicine. Right now, The Environmental Protection Agency (EPA) is not sure about the risks for people who have low levels of lithium in their drinking water. Scientists are still learning about how lithium affects our health and at what levels it might be a concern.

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. Washington 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 1-800-426-4791 <http://www.epa.gov/safewater/lead>.

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. 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 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 Washington 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.