Bountiful Water Department
2022 Consumer Confidence Water Quality Report

We are pleased to present this annual drinking water quality report. Included are details about where your drinking water comes from; what it contains and how it compares to EPA and Utah water quality standards. We are committed to providing you with reliable and accurate information so that you can be an informed customer. If you have any questions about this report or your water utility, please contact the Bountiful City Water Department at 801-298-6180. Water issues are occasionally discussed at City Council meetings. To find out if water issues are on the agenda, you may Call City Hall at 801-298-6142.
City Council meetings are usually held on the 2nd and 4th Tuesdays of each month at 7:00 p.m.

Where Does Bountiful's Water Come From?

Approximately 60% of Bountiful's drinking water is supplied from eight wells located throughout the City: BWSD Well Calder Wells #1 & #2, First East Well, Upper and Lower Mueller Park Wells, Viewmont Well and Shop Well. These wells draw water from water bearing formations as deep as 750 feet below the ground surface. The rest of our water is supplied by treated surface water sources. About 20% comes from Mill Creek in Mueller Park where the City operates its own treatment plant. The remaining 20% comes from the Weber River via the Weber Basin Water Conservancy District Treatment Plant on Davis Blvd.

A Primer on Water Contaminants

When water evaporates or transpires from plants into the atmosphere as water vapor it is pure and free of incidental substances. As it condenses to form precipitation, it falls back to earth and runs over or sinks into the ground, dissolving and suspending naturally occurring and manmade substances, which become part of the water. These substances are frequently referred to as Impurities or contaminants. Some contaminants have beneficial effects on water quality. Others may impart undesirable aesthetic qualities such as taste, odor, or color, but still be harmless. Still others, if present in sufficient concentrations, may be harmful to health. Contaminants can be categorized into two groups:

Microbial contaminants, such as viruses, bacteria, and protozoa, occur naturally and from human activities such as agriculture and wastewater disposal/treatment.

Inorganic contaminants, (e.g., salts and metals) occur naturally and from human activities. such as storm runoff, industrial and energy production, mining, and farming.

Organic contaminants, including synthetic and volatile organic chemicals, are by products of industrial and petroleum production and can also come from gas stations, urban runoff, and septic systems.

Pesticides & Herbicides, may come from agriculture, urban storm runoff and residential uses.

Radioactive contaminants, can result from natural deposits as well as oil and gas production or mining. To ensure that drinking water is safe for human consumption the U.S. Environmental Protection Agency (USEPA) prescribes regulations limiting the amounts of certain of these contaminants in water supplied by public water systems. The Food and Drug Administration (FDA) prescribes similar regulations for the bottled water industry. Bountiful's water meets or exceeds all regulatory standards for safe drinking water. 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 800-426-4791.

Contaminant List

The presence of the contaminants listed in the table (see table inside) does not necessarily indicate that the water poses a health risk. However, some people may be more vulnerable to certain contaminants than the general population. Immunocompromised persons, such as persons with cancer undergoing chemotherapy, organ transplant recipients, those with immune system disorders (e.g., HIV/ AIDS), some elderly and infants can be particularly at risk from infections. Such people should seek advice about drinking water from their health care providers. EPNCDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the EPA' s Safe Drinking Water Hotline at 800-426-4791.

Protecting our Valuable Water Resources

Many, if not most, Bountiful homes businesses and other properties lie within drinking water source protection zones as established in accordance with State regulations. Bountiful City obtains its drinking water from both ground water and surface water sources. While the surface water source watersheds are outside of the City limits most of the ground water sources are near developed areas in the city. It is the responsibility of each property owner and user to properly manage the use, storage and disposal of chemicals or other substances which could potentially contaminate the ground water which supplies Bountiful's drinking water wells. Examples of such substances are fertilizers, pesticides, cleaning solvents, and fuels. All residents and other property owners are encouraged to refer to Fact Sheets containing best management practices for these substances. These Fact Sheets may be viewed online at www.drinkingwaterutah.gov/sourceprotectionintro.htm or copies may be obtained at the Water Department office at 260 West 1050 South.

The complete Drinking Water Source Protection plans for Bountiful's sources are also available for review at the Water Department office or they can be seen at the Utah Division of Drinking Water.

Lead and Copper Rule

We are fortunate in Bountiful that our water is relatively hard. Especially from our well sources. This is a benefit because the water is scale forming rather than corrosive. So, the risk of lead and copper leaching into the water is relatively low. The EPA updated the lead and copper rule at the end of 2021. With the update comes a large list of new responsibilities. Over the next couple of years, we will be doing a survey of every service connection in our system. The purpose of this survey is to identify the material of all service lines on the system side and the customer side of the meter. Going forward our objective is to remove all lead and copper from the distribution system. We encourage all customers to find out what their service line and plumbing are made from and update them if possible. Especially if it is galvanized steel or copper

that was installed before the lead ban in 1986.
We are prioritizing main line replacement in areas that were constructed when lead was a standard building material. We now use ANSI rated C 900 PVC for mainlines and we use lead free brass fittings when necessary. Whenever we work on a service connection if we find copper pipe or lead fittings, we remove and
replace the service line from the meter to the water main. Also, on every main line replacement project we do, we replace the service line regardless of
material. We replace services with HDPE.
If you have any concerns about lead or copper content in your water, it is good practice to run your water before you drink it. If water has not been run in over 6 hours. Be assured that if we run into an issue that may affect public health, we will immediately report it to our customers and take the steps necessary to mitigate the problem. For more information you can go to
http://www.epa.gov/safewater/lead

Radium

In 2021, we tested all our sources for combined radium. All our sources but one tested near or below the detectable limit. However, Davis Well tested above the MCL for Ra226 and Ra228. It required multiple public notices and some major infrastructure upgrades to keep that well in service. We worked closely with the Division of Drinking water throughout the entire process. We were even publicly recognized by the head of DDW for how quickly we planned and completed the upgrades. Now, when we run Davis well it mixes at a 2-parts weber basin treatment plant water to 1 part Davis well water ratio. This brings the combined radium levels well below the MCL. We continue to test and monitor the combined radium levels of the well itself, and the blended water to ensure that we meet or exceed all regulations.

In home treatment

Hard water is great for a distribution system. Scale forming hard water is less corrosive and doesn't eat away at the pipes it travels through. But there is no denying that hard water leaving a film on your dishes amongst other things can be a nuisance. Water softening systems are great but there are a few things that concern us about some in home treatment systems. We don't have any control over what customers do with their water once it has passed through the water meter. PH altering softening systems that are citric acid based if not set up correctly can make the water in your home extremely corrosive. This is a real problem if your plumbing is copper, and it was installed before the EPA lead ban in 1986. Another area of concern is systems that remove the chlorine residual from the water. Chlorine is an extremely effective disinfectant in water. We try to maintain a residual between 0.6ppm and 0.2ppm. in well water, and between 1ppm and 0.8ppm in water produced at our treatment plant. Chlorine dissipates from water rather quickly so even if you don't remove the chlorine if you have areas of your property where the water isn't run very often the protection from chlorine diminishes over time. So as a customer we would recommend regularly flushing those areas of your home. Run the water for a couple of minutes until you feel the temperature change. This indicates that you are getting fresh water from the mainline that should have a chlorine residual. For those
that are removing the chlorine we recommend that you open the bypass on your treatment system and flush your lines and let the chlorinated water through, give it some dwell time and then put your treatment system back into service. Here are some things to consider: Check the temperature setting for your water heater. Water that is too hot can create a burn hazard, while water that is too cool can create a perfect environment for bacteria to grow. You may also want to consider installing a pressure regulator to prevent any sudden surges to your water heater. These can be found at any general plumbing supply store, or you can have a plumber install one for you. For more information go to:
http://lifehacker.com/whats-the-besttemperature-for-my waterheater-1465372005 If you have a kitchen or bathroom that rarely gets used, you should make a point of running water through the faucets on a frequent basis.
Stagnant pipes and fixtures are susceptible to microbial growth. Flushing unused water lines regularly will help prevent this. All types of filters and purifiers (point of use devices) need to be properly maintained and monitored. Neglected devices may not work as intended, and can become a haven for microbial growth, or shed filter material into your home's water. Even the filter in the door of your refrigerator needs to be properly maintained to protect your family.

Department Notes:

Bountiful City's water crews are constantly upgrading their skills and water knowledge. Our water operators are certified in water distribution, treatment, and back flow prevention. This means that our crews are trained to make repairs, sample water, and
keep contaminated water out of the water system. We deliver clean, good tasting water over 11,000 connections throughout Bountiful. We are proud of the work we do. Water service interruptions may take place throughout the community.
We will make sure to give notification before service interruptions and we will work quickly to minimize the outage time.

Cross Connection/Backflow

It is a violation of State Law to interconnect the culinary and the secondary water supplies. As you work with your sprinkler systems this season you are reminded to avoid any form of Cross Connection. Allowing unsanitary secondary water to backflow into the culinary water system will result in the contamination of the public water supply. A **cross connection** is any actual or physical connection between a potable (drinkable) water supply and any source of non-potable liquid, solid
or gas that could contaminate potable water by backflow.
Backpressure is when the pressure of the contaminant source exceeds the positive pressure in the water distribution main. An example of
backpressure contamination is when a drinking water supply main has a connection to a hot water boiler system that is not protected by an approved and functioning backflow preventer. If pressure in the boiler system increases to where it exceeds the pressure in the water distribution system, backflow from the boiler to the drinking water supply system may occur.
Back siphonage is caused by a negative pressure (vacuum or partial vacuum) in the water distribution system. This situation is similar in effect to the sipping of water through a straw. Negative pressure in the drinking water distribution system can happen because of a water main break or when a hydrant is used for flushing or firefighting. Don't leave a garden hose submerged in a bucket, utility sink, backyard pond, swimming pool, etc. and avoid the use of spray attachment used on the end of a hose to apply pesticides to your lawn and garden.
You are our "Partner"! Bountiful City Water delivers water that is clean and Safe. However, once the water passes from our system and through your meter, you become a partner with us in making sure it stays that way!

Water Conservation

- The best practice is to get in the habit of avoiding water waste and be continuously conservation minded. Below are good practices to follow:
- Inspect for plumbing leaks periodically and fix them promptly.
- Don't let water run when not being used. (Teeth brushing, rinsing dishes, car washing, etc.).
- Do full loads of dishes or laundry.
- Observe proper landscape irrigation practices (See Website for tips).
- Install water efficient toilets and appliances.

We will continue to monitor for abnormal increases in water usage as we read meters. As a courtesy, we will notify you if we observe an unusual increase in your consumption so you can check for an explanation, such as a possible leak. The notification will normally be by a doorknob hanger.

Test results for the year 2022: The data presented in this table are the most recent according to regulations.
CONSTITUENT TABLE DEFINITIONS
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.
- **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 other
- **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 outdated.
- **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.

TCR Tables

Coliform Bacteria	year	+Sample count	MCLG	Violation	Likely Source of Contamination
Coliform Bacteria	2022	0	0	N	Naturally present in the environment

Lead And Copper

	Year	Lowest Level	Highest Level	MCLG	MCL	Units	Violation	
Copper	2022	1.3	1.3	0298	1	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; corrosion of household plumbing system
Lead	2022	0	15	5.6	0	ppb	N	Corrosion of household plumbing systems; erosion of natural deposits

Regulated contaminants

Disinfectants and disinfection by-products	Year	Lowest Level	Highest Level	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids	2022	0	39.2	0	60	ppb	N	By-product of drinking water disinfection
Total Trihalomethanes	2022	1.4	51.5	0	80	ppb	n	By-product of drinking water disinfection

Inorganic Contaminants

Inorganics	Year	Lowest Level	Highest level	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2018, 19, 22	0	0.8	0	10	ppb	N	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production waste

Barium	2018, 19, 22	.016	.22	2	2	ppm	N	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits
Cadmium	2018, 19, 22	0	.296	5	5	ppb	N	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries; paints
Chromium	2018, 19, 22	0	2.43	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide	2018,19,22	0	13.7	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
Fluoride	2018, 19, 22	0	.317	4	4	ppm	N	Erosion of natural deposits; water addition which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nickel	2018, 19, 22	0	85.4	100	100	ppb	N	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits
Nitrate	2019, 21,22	0	2.917	10	10	ppm	N	Runoff from fertilizer use; Leaching form septic tanks; Sewage; Erosion of natural deposits
Selenium	2018, 19, 22	0	1	50	50	ppb	N	Discharge from petroleum and metal refineries; erosion of natural deposits; Discharge from mines
Sodium	2019, 22	4.3	131.36	500	none	ppm	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Sulfate	2019, 22	2.9	56.8	1000	1000	ppm	N	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Total dissolved Solids (TDS)	2019, 22	108	1056	200	200	ppm	N	Erosion of natural deposits

Lead and Copper	**year**	**Lowest Level**	**Highest Level**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely source of contamination**
Copper	2022	.004	1.5	1.3	1.3	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing system
Lead	2022	0	12.8	0	15	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits

Radioactive Contaminants	**Year**	**Lowest Level**	**Highest Level**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Alpha emitters	2019 ,21, 22	4	18.9	0	15	pCi/L	N	Erosion of natural deposits
Combined Radium 226/228	2019, 21, 22	.484	11.1	0	5	pCi/L	N	Erosion of natural deposits
Radium 226	2019, 21, 22	0	7.9	0	5	pCi/L	N	Erosion of natural deposits
Radium 228	2019, 21, 22	.339	6.7	0	5	pCi/L	N	Erosion of natural deposits
Uranium	2021	2.6	2.8	0	30	ppb	N	Erosion of natural deposits

Turbidity	**Year**	**Lowest Level**	**Highest level**	**MCGL**	**MCL**	**Units**	**Violation**	**Likely source of contamination**
Turbidity	2019, 21, 22	0	37.29	0	0.3	NTU	N	Soil runoff

Volatile Organic Contaminants	**Year**	**Lowest Level**	**Highest Level**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Trichloroethylene	2019, 20, 21, 22	0	0.8	0	5	ppb	N	Discharge from metal degreasing sites and other factories

In addition to the constituents listed in the table over 100 inorganic contaminants (VOCs) pesticides and unregulated organic chemicals were tested for but not detected.

Our Commitment

There are two major goals that we at Bountiful City Water Department strive to meet. First, to ensure the water meets all standards and is safe and reliable. Second, to make the water as aesthetically pleasing as possible. 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.

For the most up to date information subscribe to our newsletter at:
https://www.bountifulutah.gov/Email-Subscriptions

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