2015

Annual Drinking Water Quality Report

This report is provided for Bountiful City water customers covering the period of January 1—December 31, 2015
South Davis Water District customers will receive a similar report from that agency.

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 298-6180. Water issues are occasionally discussed at City Council meetings. To find out if water issues are on the agenda, you may telephone City Hall at 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 five 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.*

In order 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 (on the next page) 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. Immuno-compromised 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 persons 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 microbial contaminants are available from the EPA's Safe Drinking Water Hotline (800-426-4791).

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Test Results for the year 2015: The data presented in this table are the most recent according to regulations.

Contaminant (see note 1)	Violation Y/N	Detected Level Range	Units	MCLG	MCL	Year	Likely source of contamination
Microbiological Contaminants							
Total Coliform Bacteria	N	0	NA	0	Note 2	2015	Naturally present in the environment
Fecal Coliform and E. Coli	N	0	NA	0	Note 3	2015	Human and animal fecal waste
Turbidity	N	<.3	NTU	N/A	Note 4	2015	Soil Runoff
Radioactive Contaminants							
Alpha Emitters	N	ND-9 <10.3-13.5	pCi/l	N/A	15	2013	Erosion of natural deposits
Combined Radium	N	<1.5 - 1.9	pCi/l	N/A	5	2013	Erosion of natural deposits
Organic Contaminants							
Trichloroethylene (TCE)	N	1.6-45.1	ppb	0	5	2013	Discharge from metal degreasing sites and other factories
DBPs: THMs HAAs	N	2.0-61.6 0-35	ppb ppb	40 30	80 60	2014 2015	By-product of drinking water chlorination
Inorganic Contaminants							
Barium	N	>.1-.2	ppb	2000	2000	2013	Discharge of drilling wastes and metal refineries; erosion of natural deposits
Cadmium	N	<.2	ppb	5	5	2013	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium	N	<.2	ppb	100	100	2013	Discharge from steel and pulp mills; erosion of natural deposits
Copper	N	17.0-431.61	ppb	AL= 1300	AL= 1300	2015	Corrosion of household plumbing systems; erosion of natural deposits; leaching from preservatives
Fluoride	N	.24-.78	ppm	4.0	4.0	2015	Erosion of natural deposits; Water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	N	*.81-5.93	ppb	0	AL=15	2012	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate+Nitrite (as Nitrogen)	N	>.1-3.76	ppm	10000	10000	2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	N	28.2-92.8	ppm	None	Note 5	2010	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills
Sulfate	N	38-42	ppm	250	1000	2013	Erosion of natural deposits; discharge from refineries and factories, runoff from landfills, runoff from cropland
Hardness	N	171-540	ppm	500	Note 5	2015	Erosion of natural deposits
Pesticides & Herbicides							
25 Various Compounds Pesticides	N	Not listed due to no detects				2015	From agriculture, urban storm runoff and residential uses

Table Term Definitions and Notes:
AL = Action Level – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
DBPs = Disinfection By-products Created by interaction of chlorine and organic matter in water.
Detected Level = This column has the high and low level detected. If a low level was not detectable, ND will be the first value in the range.
HAAs = Haloacetic acids: a class of DBPs
MCL = Maximum Contaminant Level– 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.
MCLG = Maximum Contaminant Level Goal– MCLG is the level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.
MRDLG = Maximum Residual Disinfectant Level Goal—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.
MRDL = Maximum Residual Disinfectant Level. 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.
N/A = Not applicable
ND = Non-Detects– Laboratory analysis indicates that the constituent is not present in detectable amounts.
NTU = Nephelometric Turbidity Unit– a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person
pCi/l = Picocuries Per Liter– the measure of radioactivity in the water.
ppb = Parts Per Billion– one part per billion is equivalent to one penny in $10,000,000.
ppm = Parts Per Million– one part per million is equivalent to one penny in $10,000.
ppt = Parts Per Trillion– one part per trillion is equivalent to one penny in $10,000,000,000.
THMs = Trihalomethanes: a class of DBPs
Year = Year of most recent sample (some constituents are not required to be monitored annually.)

Note 1-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.
Note 2-Presence of coliform bacteria in 5% of monthly samples.

Note 3-A routine sample and repeat are total coliform positive, and one is also fecal coliform or E. coli positive.
Note 4-Treated surface water requirement MCL is <.3NTU. Ground water sources (wells) MCL is <5NTU.

Note 5-There is no MCL established by the EPA.

*Every three years we sample the water in 30 of the "high risk" homes in Bountiful for lead and copper content. We take the results of those and figure the 90th percentile which is the value we report to the Division of Drinking water and on this Consumer Confidence Report. In 2015 we had one home that exceeded the maximum contaminant level set forth by the EPA. We have advised this home owner not to drink water that has been sitting in their pipes for over 6 hours, but to run the water for a minute or so before they drink it. This is probably good advice for anyone with copper pipes installed with lead solder in their home.

Lead and Copper

Since the events in Flint Michigan people around the country are concerned about the lead content in their water. We have few issues with lead content in the drinking water in Utah and Bountiful in particular. We do not have lead pipes in Bountiful as Flint Michigan does and the corrosiveness of our water is closely monitored. High lead and copper levels are a result of low PH water sitting in copper pipes with lead solder joints for long periods of time. Typically, we only see this in residential piping where water properties have been altered.
The hard water in Bountiful actually coats the inside of our pipes so the water is not usually in contact with the metal alloys contained in water pipes and fittings, This helps protect us from lead and copper and other metals in the water.
If you have any concerns about lead or copper content in your water it is a good practice to run your water before you drink it if water has not been ran for 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.

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The table on the previous page lists the contaminants detected in Bountiful's water as determined by laboratory tests. Although there are many currently regulated contaminants, the table generally lists only those contaminants that have been detected in the most recent year of the past five years.

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 in close proximity to developed areas within 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 on line at **www.drinkingwater.utah.gov/source_protection_intro.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.

Meter Access

The homeowner is responsible to make sure the water meter is free from objects blocking our access to it. It is best to minimize planting in the area around your meter. Trim bushes, trees and grass that block the way or cover the meter. During the growing season, plants can cover a water meter box very quickly. If a planting obstructs the meter, you will be asked to prune it or remove it. Not only does City Code require meters to be kept clear, it makes sense, too. In the event of an emergency, such as a leak, city employees can shut the water off to your service quickly, helping to minimize damage.

If you have any questions regarding your water meter or need repairs to the meter, please call the Water Department at 801-298-6180. Note: We ask that our customers resist the urge to investigate problems with the meter or get in the meter box. Repairs are best left to the trained professionals.
For questions regarding your monthly bill, please call the Utilities Billing Department at 801-298-6100.
For questions regarding your secondary water, (Weber Water) please call 801-295-5573.

Note: Weber Water and Bountiful City Water Department, your culinary water provider, are two separate entities .

Water Conservation

Although we have had a good winter and spring, the need to conserve water is always important. 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.

Hard Water & Scale

You may notice white flakes in your water, especially if you make ice from tap water, and whitish deposits (scale) on faucets, cookware and eating utensils. These flakes or deposits are most likely calcium and magnesium compounds that come out of solution upon freezing or heating. Sometimes, these substances will form a very thin film on the top of boiled water. These are symptoms of "hard" water. Another symptom is difficulty in making soap suds. **Please be aware that hard water does not compromise health in any way.** Much of Bountiful's source water is considered hard to very hard, being in the range of 15 to 30 grains per gallon. Scaling of pipes and faucets may be made worse by setting your water heater above 120 degrees F. Most water heater manufacturers recommend flushing the sediment (hardness scale) from your water heater twice per year.

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 back-flow into the culinary water system will result in the contamination of the public water supply.

Cross connection; 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; 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.

Backsiphonage; 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 delicious. 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! 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-best-temperature-for-my-water-heater-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 filter ad purifiers (point of use devices) need to be properly maintained and monitored. Neglected devices may not work as intended, can become a haven for microbial growth, or shed filter material into your home's tap 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 backflow 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 to 10,670 connections throughout the city of Bountiful. We are proud of the work we do. Water service interruptions may take place throughout the community this summer. We will make our best effort to notify you prior to any disruption of service and will work to minimize the outage.

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 childrens future.

Bountiful City Water Department
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Phone (801) 298-6180 Fax (801) 298-6183
WEB: http://www.bountifulutah.gov/watermain.aspx

"When the well is dry, we know the worth of water."

Benjamin Franklin—1746