SMITHFIELD CITY

2017 Drinking Water Quality Report

Spanish(Espanol)

Este informe contiene informacion muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuniquese con alguien que pueda traducir la informacion.

Is My Water Safe

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

Useful Information On Your Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminates does not necessarily indicate that water poses a health risk. More information about contaminates and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Smithfield's water supply comes from a combination of groundwater wells and springs. As water travels through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from human activity. These include:

- Viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock, and wildlife.
- Salts and metals, which can be natural or may result from storm runoff, wastewater discharges, and farming.
- Organic chemicals, which originate from industrial processes, petroleum production, gas stations, storm runoff, and septic systems.
- Radioactive substances, which can be naturally occurring.

To ensure safe tap water, this water is disinfected with chlorine. The EPA also prescribes limits on these substances in water provided by public water systems.

Smithfield Water Facts...

Water that supplies the Smithfield Water System comes from a variety of different sources. The primary supply is collected through eight springs located in Smithfield Canyon above the forest reserve. These springs were developed as part of an expansion to the water system in the early 1930's which not only consisted of the development of the springs, but also the construction of a 10-inch transmission line through difficult terrain to the storage reservoir.

The development of the springs, for the most part, was accomplished by digging into bedrock and creating a collection basin that is protected from intruders by a steel door which is kept secure by a padlock. Water that is collected is then routed to the transmission line which carries it to the city for storage and eventual distribution.

To distinguish the various springs from one another they were given names. The names were either derived from individuals prominent at that time or they were given a name, which reflected a distinguishing characteristic of the spring. For instance, the G.L. Rees spring was named for the Mayor who was instrumental in developing the project. The Dugway Spring got its name because of its location directly below the Dugway.

In addition to the eight upper canyon springs, the city also has other springs much closer to town. The largest is the Miles Spring, this spring plus the Peterson Spring located between the canyon reservoir and the Mountain View Subdivision, were part of the original canyon water supply system. Water

Water from these canyon sources is normally adequate to supply all of our water needs except during the heavy summer usage months.

In addition to the canyon springs, Smithfield also has two deep wells that are used to supplement water from the canyon. The primary well, located at Forrester acres, was drilled in 1968 and is capable of delivering 1500 gallons per minute. Water from this well is added to the water system through a ten inch water line located on 100 North.

The second well is located along the number five fairway on the Birch Creek Golf Course. This well, which was drilled in 1996, is currently capable of supplying 1500 gallons per minute with a potential capacity of 2200 gallons per minute. Water from this well is transmitted through an 18-inch water line on 1000 East (Hillside Drive) to 300 South where it enters the distribution system.

Both wells derive their water from a protected aquifer. A protected aquifer is one in which the water is separated from the surface by a clay or other geological strata of sufficient thickness to prevent contaminates from entering the supply.

Protect Our Water Sources

Although our water sources are protected from contaminates, care needs to be exercised to insure potential contaminates are not permitted to penetrate the natural seals. The best way to guard against such a devastating event is to identify potential contaminates and implement programs to control their use. Among the list of potential contaminates are petroleum products, pesticides, herbicides, fertilizers, lead, and other deleterious metals.

Proper use and disposal of these materials is essential to a healthy water system. From time to time the city distributes information to residents concerning how best to manage these products. Individuals with concerns or questions should contact the City Engineer.

In doing our part, the city has implemented management practices to protect our water sources. Many of our water sources are routinely inspected for problems that might result from natural or man-made events. Our employees have been trained and licensed in the use of herbicides, insecticides, and fertilizers. Steps have been taken to encourage individuals with feedlots to control standing water and runoff from their property. The city also distributes "Fact Sheets" from the state Department of Environmental Quality in the city newsletter that gives instruction to individuals on how they can best protect our water supply.

As a city, we are fortunate to have a safe and reliable water supply. We are not, however, without challenges. Even though our water sources experience a low susceptibility to contamination, they are vulnerable because of their location in public areas. As residents, landowners, and business owners we all have a responsibility to safeguard this important natural resource.

The Drinking Water Source Protection Plan for our community is available for your review. It contains specific information about the source protection zones, potential contamination sources, and the management strategies the city is pursuing. Please contact us at 563-6226, if you would like to review our source protection plan or if you have question or concerns about it.

Water Sampling and Testing

To insure a safe, high quality water supply, Smithfield City, under the direction of the State Division of Drinking Water, samples the water on regular intervals and tests for a wide variety of organic and inorganic materials. On a monthly basis, Smithfield takes 10 random water samples and tests them for harmful bacteria.

Our water is also tested for inorganics and metals every three years. These were scheduled for testing in 2016. Asbestos is checked every nine years and was due in 2016. All samples taken were within the required limits. Every year the water is tested for Total Nitrates and Nitrites. This past year, samples were taken and found to be well within the maximum contaminate limits. Also, as required by the DDW, tests for lead and copper are performed at a multiple number of sites. In testing for these elements, 30 random samples are taken and analyzed to insure the tests correctly represent the water system. These tests found

our water to be within the established required limits. Pesticide testing is done every three years and was performed in 2016 as well. These tests also found the water to be within the required limits. Volatile Organic Chemicals are tested every six years and the well on the golf course was tested last year, with results finding it to be within the limits as well.

Culinary Water vs. Secondary Water

Smithfield is fortunate in the fact that they have access to both culinary and secondary water. In simplified terms, culinary water is water that is used for drinking, cooking, and many everyday uses. It is of high quality and is required to meet stringent standards that are established by the Environmental Protection Agency. On the other hand, secondary water is often referred to as irrigation water. Unlike culinary water it doesn't go through the rigorous testing processes the culinary water must and should never be used for drinking, cooking, or otherwise consumed.

Secondary water in Smithfield is delivered to many residents in two separate distribution systems. The largest system is owned and operated by Smithfield Irrigation Company which obtains its water from a variety of sources including Summit Creek, the Logan, Hyde Park, and Smithfield Canal, the Logan Northern Canal, and a number of wells within the community. This system serves many of the agricultural areas, as well as, approximately 2/3 of the residential areas within Smithfield.

Smithfield City also has a secondary system of its own. This system is supplied with water from the Highline Canal located on the east bench near 1000 East. Although this supply can be unreliable at times during periods of drought, it does provide low cost secondary water to many families in the southeast section of the city.

Despite its comparative low cost, secondary water is still a valuable commodity that needs to be protected and used wisely. Every gallon of secondary water used is one gallon of high quality culinary water saved.

Ground Water Rule Violation

The routine samples taken monthly by the Bear River Health Department for total coliform had a detect in the month of September.

Of the twelve samples taken in the month of September there was reported one detect in the total coliform. Addition samples were taken as required by the Ground Water Rule. Samples were taken shortly after with no coliform present as the result of these additional tests. The violation was isolated to one sample and not continuing, also noteworthy it was not deemed to be fecal coliform.

Additional samples were taken, and the system was determined to be in compliance with the Division of Drinking Water standards.

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TCR TABLES

CONTAMINANT	Violation Y/N	Level Detected ND/Low-High	+ sample count	MCLG	MCL AL	Date Sampled	Violation Y/N	Likely Source of Contamination
Coliform Bacteria	N	ND	0	0	5	2016	N	Naturally present in the environment
Fecal Coliform & E. Coli	N	ND	count	0	5	2016	N	Naturally present in the environment

LEAD AND COPPER

	Year Sampled	Lowest Level	Highest Level	MCLG	MCL	Units	Violation Y/N	Likely Source of Contamination
Copper	2016	0.011	0.295	1.3	1.3	ppm	N	Erosion of natural deposits; Leaching of Wood Preservatives; Erosion of Household Plumbing Systems
Lead	2016	0	4350	0	15	ppb	N	Erosion of Household Plumbing Systems; erosion of natural deposits

REGULATED CONTAMINANTS

CONTAMINANT	Year Sampled	Lowest Level	Highest Level	MCLG	MCL	Units	Violation Y/N	Likely Source of Contamination
Arsenic	2011	0	0	0	10	ppm	N	Corrosion of household plumbing systems; erosion of natural deposits
Barium	2016	0.021	0.045	2	2	ppm	N	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	2016	0	0.167	4	4	ppm	N	Water additive which promotes strong teeth: erosion of natural deposits: discharge from fertilizer and aluminum factories.
Nickel	2016	0	3.21	100	100	ppb	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate	2017	0.249	1.66	10	10	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	2016	1.72	1.72	1000	2000	ppm	N	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
Sulfate	2016	5.22	7.2	1000	1000	ppm	N	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from crop land
TDS [Total Dissolved solids]	2017	0	2.6	0	8.0	ppb	N	Erosion of natural deposits
(HAA5) [Total Haloacetic	2017	0	2.3	0	6.0	ppb	N	By-product of drinking water disinfection
Lead	2016	0.011	0.295	1.3	1.3	ppm	N	Erosion of natural deposits; Leaching of Wood Preservatives; Erosion of Household Plumbing Systems
Copper	2016	0	4350	0	15	Ppb	N	Erosion of Household Plumbing Systems; erosion of natural deposits
CONTAMINANT	Year Sampled	Lowest Level	Highest Level	MCLG	MCL	Units	Violation Y/N	Likely Source of Contamination
Turbidity	2016	0.101	0.152	0	0.3	NTU	N	Soil Runoff.

VIOLATION TABLE

VIOLATION TYPE			

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.
Millirems per year (mrem/yr) - measure of radiation absorbed by the body.
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.
Variances and Exemptions -Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
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) - (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
Maximum Contaminant Level (MCL) - (mandatory language) 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) - (mandatory language) 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 out of date.
Some people may be more vulnerable to contaminates in drinking water than the general public. 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 advise 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 contaminates are available from the Safe Drinking Water Hotline (1-800-426-4791)

For More Information Contact
The Smithfield` Water
Superintendent
563-4140