WHY PROVIDE A WATER QUALITY REPORT?

The sources of drinking water for our system include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pickup substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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 EPAs Safe Drinking Water Hotline at (800) 426-4791.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. 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 microbial contaminants are available from the Safe Drinking Water Hotline (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. We 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 EPA.gov/safewater/lead.

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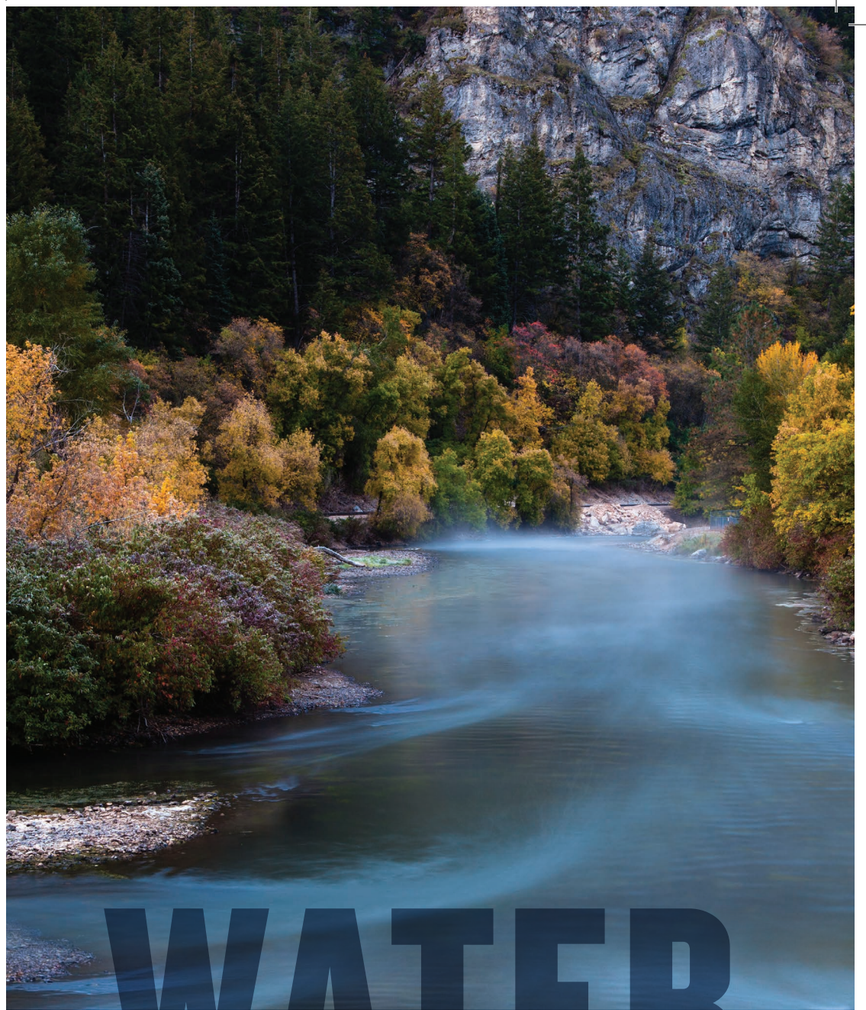
Este informe contiene informacion muy importante sobre su aqua potable. Traduscalo o hable con un amigo quien lo entienda bien.



WATER QUALITY REPORT

2015

provo
PUBLIC WORKS
WATER RESOURCES

PWS ID# UTAH25006

PROVO PROVIDES YOU WITH EXCEPTIONAL WATER

Once again we are proud to present our annual water quality report. This edition covers all testing completed from December 2014 through December 2015. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. While considering conservation, source water protection and community education. The City focuses on the needs of all water users and the livability of our community as a whole. For more information about this report, or for any questions relating to our drinking water, contact Provo Public Works - Water Resources.

WATER SOURCES MANAGER
RYAN YORK - (801) 852-7789

VISIT US ONLINE
PROVO.ORG/WATER

CROSS CONNECTIONS & YOU

Did you know common hazards in and around your house can contaminate your drinking water as well as your neighbors?

These hazards are known as cross-connections, and can result in contaminated water back-flowing into your home's drinking supply without you even knowing.

TWO COMMON CROSS CONNECTIONS ARE:

Any hose is a cross connections when left submerged in a swimming pool, laundry sink, or car wash bucket.

To protect your water from these cross connections, make sure to have hose bib vacuum breakers installed on each of your hose bibs.

These simple devices are inexpensive and can be purchased from your local hardware store. They are easy to install; you just screw them on.

Your in-ground irrigation system is also a cross connection so make sure to do the following:

1. Confirm your irrigation system has a back flow assembly device, if not, get one installed.
2. Test the backflow prevention device annually.

Provo City Water Resources Division has a cross connection control program, which is required by Utah State drinking water regulations and has specific requirements for the protection of Provo's water from backflow. Backflow prevention devices and assemblies provide protection from pollution or contamination of the drinking water system. The proper installation, use, and maintenance of this protection is required by Provo City Code and will help ensure the water is clean and safe for our community. Please feel free to contact Provo's Cross Connection expert with any questions regarding this program.

CROSS CONNECTION CONTROL COORDINATOR
TRACY HILL - (801) 852-6788

YOU CAN CONSERVE WATER TOO

- If you use a low-flow showerhead, you can save 15 gallons of water during a 10-minute shower.
- Every time you shave minutes off your use of hot water, you also save energy and keep dollars in your pocket.
- It takes about 70 gallons of water to fill a bathtub, so showers are generally the more water-efficient way to bathe
- All of those flushes can add up to nearly 20 gallons a day down the toilet. If you still have a standard toilet, which uses close to 3.5 gallons a flush, you can save by retrofitting or filling your tank with something that will displace some of that water, such as a brick.
- Most front-loading machines are energy- and water-efficient, using just over 20 gallons a load, while most top-loading machines, unless they are energy-efficient, use 40 gallons per load.
- Nearly 22% of indoor home water use comes from doing laundry. Save water by making sure to adjust the settings on your machine to the proper load size.
- Dishwashing is a relatively small part of your water footprint—less than 2% of indoor use—but there are always ways to conserve. Using a machine is actually more water efficient than hand washing, especially if you run full loads.

YOUR VIEWS ARE WELCOMED

Community participation is welcomed so if you have comments or questions regarding your water, you can attend Provo's City Council meetings. These Council Meetings provide residence and business owners with the opportunity to interface with elected officials. You are heavily encouraged to attend, and to be involved in the decision making process. The Council is a group of elected officials that represent their voters. Contact your council member with any questions you have about Provo, they would be delighted to hear from you, and provide a thorough timely response.

Council Meetings are held on the first and third Tuesday of each month at 5:30PM. Exceptions: November and December- First Tuesday only.

PROVO CITY WATER SAMPLING RESULTS

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. This table shows only those contaminants that were detected in the water. Although all the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

Groundwater tapped by the City's wells is stored in unconsolidated deposits of sand and gravel that underlie the City, and our springs store groundwater found in Paleozoic limestone and quartzite's. Provo has a Drinking Water Source Protection Plan (DWSP) that is designed to protect the integrity of our drinking water supplies and is available for reveiw in our office. The gerneral types of potential contamination sources that exist within our DWSP zones for Provo's wells and springs include sewer lines, golf courses, improved and unimproved roads, residential properties, and commercial/industrial areas. These potential contamination sources are adequately controlled by our commitment to an aggressive watershed protection program, which we consider our first line of defense in assuring the quality of your drinking water. Based on the hydro-geologic setting, the integrity of the source collection systems, the types of potential contamination sources present, and the strict requirements of our DWSP, we consider the Provo well field and springs mildly susceptible to contamination.

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 EPA's Safe Drinking Water Hotline at (800) 426-4791

REGULATED CONTAMINANTS

		PROVO CITY WATER RESOURCES		CUWCD					
	COLLECTED	AVERAGE	RANGE	AVERAGE	RANGE	MCLG	MCL	VIOLATIONS	LIKELY SOURCE OF CONTAMINATION
Haloacetic Acids (ppb)	2015	3	0 - 6	16.9	0 - 34.4	0	60	NO	By-product of drinking water disinfection.
TTL Trihalomethanes (ppb)	2015	11.95	2.2 - 21.7	30.7	0 - 70.5	0	80	NO	By-product of drinking water disinfection.

INORGANIC CONTAMINANTS

		PROVO CITY WATER RESOURCES		CUWCD					
	COLLECTED	AVERAGE	RANGE	AVERAGE	RANGE	MCLG	MCL	VIOLATIONS	LIKELY SOURCE OF CONTAMINATION
Arsenic (ppb)	'11 & '15	0.55	0 - 1.1	2.3	0 - 3.34	0	10	NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium (ppm)	'11 & '15	0.071	0.041 - 0.101	0.075	0 - 0.07	2	2	NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide (ppb)	'11 & '15	4	0 - 8	-	-	200	200	NO	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride (ppm)	'11 & '15	0.2	0 - 0.4	0.2	0 - 0.242	4	4	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (ppm)	'12, '14 & '15	0.8	0 - 1.6	0.2	0 - 0.3	10	10	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium (ppb)	'11 & '15	2.45	1.1 - 3.8	-	-	50	50	NO	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Sodium (ppm)	'11 & '15	13.15	3.2 - 23.1	-	-	500	0	NO	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Sulfate (ppm)	'11 & '15	48	12 - 80	40	40 - 49.3	1000	1000	NO	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
TDS (ppm)	'11 & '15	272	132 - 412	285	169 - 395	2000	2000	NO	Erosion of natural deposits

RADIOACTIVE CONTAMINANTS

		PROVO CITY WATER RESOURCES		CUWCD					
	COLLECTED	AVERAGE	RANGE	AVERAGE	RANGE	MCLG	MCL	VIOLATIONS	LIKELY SOURCE OF CONTAMINATION
Alpha Emitters (pCi/L)	'11 & '15	1.05	-0.4 - 2.5	3.8	0 - 3.8	0	15	NO	Erosion of natural deposits.
Radium 226 (pCi/L)	2011	0.34	0.34 - 0.34	-	-	0	5	NO	Erosion of natural deposits.
Radium 228 (pCi/L)	2015	0.315	0 - 0.52	0.34	0 - 2.79	0	5	NO	Erosion of natural deposits.

COLIFORM BACTERIA

		PROVO CITY WATER RESOURCES	CUWCD				
	COLLECTED	+ SAMPLE COUNT	+ SAMPLE COUNT (%/MO)	MCLG	MCL	VIOLATIONS	LIKELY SOURCE OF CONTAMINATION
Coliform Bacteria	2015	1	0	0	5	NO	Naturally present in the environment.

MICROBIO CONTAMINANTS

		PROVO CITY WATER RESOURCES	CUWCD				
	COLLECTED	POSITIVE SAMPLE COUNT	POSITIVE SAMPLE COUNT	MCLG	MCL	VIOLATIONS	LIKELY SOURCE OF CONTAMINATION
E. Coli	2015	0	0		0	NO	Human and animal fecal waste.

TURBIDITY (GROUND WATER)

		PROVO CITY WATER RESOURCES		CUWCD					
	COLLECTED	AVERAGE	RANGE	AVERAGE	RANGE	MCLG	MCL	VIOLATIONS	LIKELY SOURCE OF CONTAMINATION
Turbidity (ntu)	'11 & '15	1.425	0.05 - 2.8	.026	0.021 - 0.042	0	5	NO	Soil runoff.

LEAD & COPPER

	COLLECTED	AL	90%	SITES OVER AL	RANGE	MCLG	MCL	VIOLATIONS	LIKELY SOURCE OF CONTAMINATION
Copper (ppm)	2013	1.3	0.174%	0	0.013 - 0.255	1.3	1.3	NO	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead (ppb)	2013	15	3.4%	1	0 - 23.2	0	15	NO	Corrosion of household plumbing systems; Erosion of natural deposits.

KEY TERMS

CUWCD
Central Utah Water Conservancy District

PCWR
Provo City Water Resource

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.

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

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.

COLLECTED
Because of required sampling time frames i.e. yearly, 3 years, 4 years and 6 years, sampling dates may seem out-dated.

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.

WATER SOURCE INFO

NORTH WELL, BROUGH WELL, ROCK CANYON WELL, EDGEMONT WELL, SLATE CANYON WELL, 5600 NORTH WELL, UTILITIES WELL, FAWCETT SPRING, BINGHAM SPRING, YELLOWJACKET SPRING, MARY SPRING, SPRINGDELL SPRING, NUNNS SPRING, PARKSIDE SPRING, THAYER FLAT SPRING, ROTARY PARK SPRING, FISHER SPRING, BOW AND ARROW SPRING, ROCK CANYON SPRING, BYU WELL, 4800 NORTH WELL, 3700 NORTH WELL, THOMAS SPRING, 88 WELL, THORN WELL, TIMP-KIWANIS PARK WELL, SPRINGDELL COMM SPRING, RIVERWOODS-UNIV WELL, UTAH25112 CENTRAL UTAH-UTAH VALLEY, and CANYON ROAD WELL