

Annual Drinking Water Quality Report

South Salt Lake City Water System 2019

We're 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 are 300 E Replacement Well, 700 E Replacement Well, and Davis Replacement Well. We also purchase water from the Salt Lake City Water System (#18026) and Jordan Valley WCD (#18027).

The Drinking Water Source Protection Plan for ***South Salt Lake City Water System*** 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.

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.

This report shows our water quality and what it means to you our customer.

If you have any questions about this report or concerning your water utility, please contact **Jason Taylor at 801-483-6045**. 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 2nd and 4th Wednesday of every month at 7:00 PM at 220 East Morris Ave on the second floor in the council chambers**.

South Salt Lake City Water System routinely monitors for 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, 2019. 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.

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 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.

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.

TEST RESULTS							
Contaminant	Violation Y/N	Level Detected ND/Low-High	Unit Measurement	MCLG	MCL	Date Sampled	Likely Source of Contamination
Microbiological Contaminants							
Total Coliform Bacteria	N	ND	N/A	0	Presence of coliform bacteria in 5% of monthly samples	2019	Naturally present in the environment
Fecal coliform and <i>E.coli</i>	N	N/A	N/A	0	If a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	2019	Human and animal fecal waste
Turbidity for Ground Water	N	0.19-1.3	NTU	N/A	5	2019	Soil runoff
Turbidity for Surface Water	N	0.02-7.93	NTU	N/A	0.5 in at least 95% of the samples and must never exceed 5.0	2018	Soil Runoff (highest single measurement & the lowest monthly percentage of samples meeting the turbidity limits)
Inorganic Contaminants							
Arsenic	N	ND-2.4	Ppb	0	10	2019	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	N	ND -0.119	Ppm	2	2	2019	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Carbon, Total Organic (TOC)	N	ND-3.1	ppm	NA	TT	2019	Naturally present in the environment
Dissolved Organic Carbon	N	ND-2.3	Mg/L	NE	TT	2019	Naturally occurring
Chromium	N	ND-15.60	ppb	100	100	2019	Discharge from steel and pulp mills; erosion of natural deposits
Copper a. 90% results b. # of sites that exceed the AL	Y	a.0.433 b.0	Ppm	1.3	AL=1.3	2019	Corrosion of household plumbing systems; erosion of natural deposits
Cyanide	N	ND-19	ppb	200	200	2019	Discharge from steel/metal factories; discharge from plastic and fertilizer factories

Fluoride	N	0.3-1.1	Ppm	4	4	2019	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	Y	a. 2.4 b.1	ppb	0	AL=15	2019	Corrosion of household plumbing systems, erosion of natural deposits
Nickel	N	ND-3.5	Ppb	100	100	2019	Erosion of natural deposits
Nitrate (as Nitrogen)	N	ND-2.8	Ppm	10	10	2019	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	ND-3.00	ppb	50	50	2019	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	N	10-79.6	ppm	None set by EPA	None set by EPA	2019	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
Sulfate	N	6-282	ppm	1000	1000	2019	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
TDS (Total Dissolved solids)	N	51.5-872	ppm	2000	2000	2019	Erosion of natural deposits

Disinfection By-products

Haloacetic Acids	N	ND-4.8	ppb	0	60	2019	By-product of drinking water disinfection
Total Trihalomethanes	N	0.5-10.8	ppb	4000	4000	2019	Water additive used to control microbes

Radioactive Contaminants

Radium 226	N	ND-1.30	pCi/L	NE	NE	2019	Decay of natural and man-made deposits
Alpha emitters	N	ND-14	pCi/L	0	15	2019	Erosion of natural deposits
Radium 228	N	ND-1.4	pCi/L	0	5	2019	Erosion of natural deposits
Radium 226 & 228	N	ND-2.6	pCi/L	NE	5	2019	Decay of natural and man-made deposits
Gross-Beta	N	1.2-32	pCi/L	Ne	50	2019	Decay of natural and man-made deposits
Alkalinity, Bicarbonate	N	25-225	Mg/L	Ne	UR	2019	Naturally Occurring
Alkalinity, Carbonate	N	ND-4.8	Mg/L	Ne	UR	2019	Naturally Occurring
Alkalinity C02	N	28-200	Mg/L	NE	UR	2016	Naturally Occurring
Ammonia	N	ND-0.3	Mg/L	NE	UR	2018	Runoff from fertilizer and naturally occurring
Alkalinity as CaC03	N	22-273	Ppm	NE	UR	2019	Erosion of Natural Deposits
Bromide	N	ND-0.0801	Ppm	NE	Ur	2019	Naturally Occurring
Calcium	N	23-132	Ppm	NE	UR	2019	Erosion of Natural Deposits

Conductance	N	45-1100	Umhos/cm	NE	UR	2019	Naturally occurring
Hardness as CaC03	N	130-495	Ppm	Ne	UR	2019	Erosion of Natural Deposits
Grains/gallons	N/A	7.6-28.9	Calculated	N/A	N/A	2019	
Non-Carbonate	N/A	12-222	Calculated	N/A	N/A	2019	
Hardness, Calcium	N	9-200	Mg/L	NE	UR	2019	Erosion of Natural Deposits
Hardness, Total	N	93.6-381	Mg/L	NW	UR	2019	Erosion of Natural Deposits
Geosmin	N	ND-6.8	Ng/L	NE	UR	2019	Naturally occurring organic compound associated with musty odor
Magnesium	N	6.9-45	Ppm	NE	UR	2019	Erosion of Natural Deposits
Molybdenum	N	ND-2.3	Ppb	Ne	UR	2019	By-product of copper and tungsten mining
Orthophosphates	Nd-10	ND-10	Ug/l	NE	UR	2019	Erosion of Natural Deposits
Phosphate	N	ND-20	Ppb	NE	UR	2019	Erosion of Natural Deposits
Potassium	N	ND-4.0	Ppm	NE	UR	2019	Erosion of Natural Deposits
Specific Conductance	N	359-1424	µS/cm	N/A	N/A	2019	Erosion of Natural Deposits
UV-254	N	ND-0.046	1/cm	NE	UR	2019	Decomposition of organic material
Vanadium	N	Nd-2.2	Ug/L	NE	UR	2019	Naturally Occurring
Aluminum	N	ND-60	Ug/L	NE	SS=50-200	2019	Erosion of naturally occurring deposits and treatment residuals
Chloride	N	10-161	Mg/L	NE	SS=250	2019	Erosion of naturally occurring deposits
Color	N	0.5-10	CU	NE	SS=15	2019	Decaying naturally occurring organic material and suspended particles
Iron	N	ND-255	Ug/L	NE	SS=300	2019	Erosion of naturally occurring deposits
Manganese	N	ND-34	Ug/L	Ne	SS=50	2019	Erosion of naturally occurring deposits
pH	N/A	6.8-8.4	N/A	NE	SS=6.5-8.5	2019	Naturally occurring and affected by chemical treatment
Zinc	N	ND-10	Ug/L	Ne	SS=5000	2019	Erosion of naturally occurring deposits
Bis (2ethylhexyl) phthalate	N	ND-0.8	Ug/L	0	6.0	2019	Discharge from rubber and chemical factories
Bromoform	N	ND-2.7	Ug/L	NE	UR	2019	By-product of drinking water disinfection
Bromodichloromethane	N	Nd-14.4	Ug/L	NE	UR	2019	By-product of drinking water disinfection
Chloroform	N	ND-61.6	Ug/L	NE	UR	2019	By-product of drinking water disinfection

Dibromochloromethane	N	Nd-4.4	Ug/L	NE	UR	2019	By-product of drinking water disinfection
Alpha-BHC	N	ND	Ug/L	NE	UR	2019	
Chlorpyrifos	N	ND	Ug/L	NE	UR	2019	
Dimethipin	N	ND	Ug/L	NE	UR	2019	
Ethoprop	N	ND	Ug/L	NE	UR	2019	
Merphos-Oxone	N	ND	Ug/L	NE	UR	2019	
Oxyfluurfen	N	ND	Ug/L	NE	UR	2019	
Permethrin	N	ND	Ug/L	NE	UR	2019	
Profenofos	N	ND	Ug/L	NE	UR	2019	
Tebuconazole	N	ND	Ug/L	NE	UR	2019	
Butylated Hydroxyanisole	N	ND	Ug/L	NE	UR	2019	
Quinoline	N	ND	Ug/L	NE	UR	2019	
Q-Toluidine	N	ND	Ug/L	NE	UR	2019	
N-Butanol	N	ND	Ug/L	NE	UR	2019	
2-Methoxyethanol	N	ND	Ug/L	NE	UR	2019	
2-Propen-1 ol (Allyl Alcohol)	N	ND	Ug/L	NE	UR	2019	
Germanium	N	ND	Ug/L	NE	UR	2019	
HAA5	N	2.2-39.6	Ug/L	NE	UR	2019	
HAA6Br	N	2.2-9.0	Ug/L	NE	UR	2019	
HAA9	N	4.1-47.5	Ug/L	NE	UR	2019	

The Unregulated Contaminant Monitoring Rule (UCMR) is a monitoring program mandated by EPA. It requires public water systems to monitor various sites every three (3) years for different parameters selected by EPA. This rule collects occurrence data on parameters that EPA is considering for regulation. Sometimes EPA includes parameters that already have an MCL but they would like to know the occurrence of it at significantly lower levels than the current analytical method allows. These numbers represent samples taken during the monitoring period which began in 2019.

Copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Lead. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and

flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

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. **South Salt Lake City Water System** 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 <http://www.epa.gov/safewater/lead>.

We constantly monitor for various constituents in the water supply to meet all regulatory requirements. In February of 2019 we failed to test for coliform bacteria. Water quality may change without any visible indication due to unanticipated environmental factors. For this reason, we are required to sample for coliform bacteria on a monthly basis. This violation does not necessarily pose a health risk. We have reviewed why we failed to take our routine coliform bacteria tests and have taken steps to ensure that it will not happen again.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or manmade. 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. Immunocompromised 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 **South Salt Lake City Water System** 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.