



23 East Center Street
Kaysville, Utah 84037
801-544-8112
www.kaysvillecity.com

Kaysville City Council

Mayor:
Tamara Tran
Council Members:
Mike Blackham
John Swan Adams
Abbigayle Hunt
Nate Jackson
Perry Oaks

Questions

If you have questions about this report or matters concerning your water utility, contact Jared Tubbs at 801-544-8112

Information

Culinary water is the water used for human consumption, and the water meters are read monthly.

Secondary water (or pressure irrigation) is the untreated water often used outside your home. The tap for this water is often painted red as a warning to not consume it, as the untreated water can cause adverse health issues. Children especially should not be allowed to drink or swim in this water. Not all secondary water connections are metered, but special attention should be paid, regardless, to conservation efforts. Please visit <https://weberbasin.com/conservation> for conservation tips and possible rebates.

Culinary water use outdoors is both expensive and prohibited, except with the express permission of Kaysville City Public Works.

Kaysville City 2021 Annual Drinking Water Quality Report

Kaysville City is pleased to provide you with this water quality report and to detail what it means for you. Our goal is, and always will be, to provide you with a safe and dependable supply of drinking water, so we want to inform you about some of our services and what we have delivered to you over the past year. We are pleased to report that our drinking water meets all of the various Federal and State requirements. Your water is routinely monitored and sampled (over 60 times a month) to ensure that the drinking water standards established by the Safe Drinking Water Act and the U.S. Environmental Protection Agency are met.

With so many connections (nearly 9,000) to our water distribution system, proper installation and maintenance of both piping and connections are of paramount importance. However, unapproved and improper piping or connections can adversely affect not only water availability, but also its quality. A “cross connection” is an unapproved or improperly made connection to the City’s distribution system and/or a hazardous use of water from the City’s distribution system that runs a risk of introducing polluted water or even chemicals into the water supply. Compromising water quality can affect your health, as well as that of your family, friends and neighbors. Do not make, or allow, connections to be made at your home or business without the approval of the City. Examples of cross connections can be as simple as an unprotected garden hose lying in a puddle next to your home or a sprinkling system being supplied by drinking water (which is not permitted in Kaysville). If you would like to learn more about protecting your water quality and supply, permitted uses or if you have other questions/concerns, please contact us.

WHERE YOUR WATER COMES FROM

Kaysville City purchases all of the water it delivers from the Weber Basin Water Conservancy District (WBWCD). The WBWCD drinking water supply comes from the Weber River and from several creeks along the Wasatch Front. Groundwater, primarily from the Delta Aquifer, is also used to supplement surface water sources. Daily sampling and monitoring of treated drinking water is performed by both WBWCD staff and Kaysville City staff.

HOW DRINKING WATER GETS TO YOU

Although a portion of drinking water originates as groundwater and is extracted from deep wells, the majority of the drinking water supply begins as surface water from the headwaters of the Weber River. Water is directed from the River into a canal at a diversion dam, where it then flows into two large aqueducts. Several creeks along the Wasatch Front sometimes feed into this aqueduct. From there, water is transported to one of the WBWCD water treatment plants. After completing the treatment process at the WBWCD, water is then delivered to the cities or water improvement districts for final distribution to individual users.



HOW ARE DRINKING WATER SOURCES PROTECTED?

WBWCD has completed a Drinking Water Source Protection Plan for all its surface water public drinking sources. The Drinking Water Source Protection program includes identification of the area from which the drinking water source receives water, an assessment of the potential contamination threats to the source within this area, and management programs to help control both existing and future potential sources of contamination. Copies of this plan can be obtained from the WBWCD office for a nominal fee, or the State Division of Drinking Water also has a copy on file. Each significant potential source of contamination has been analyzed and assigned a qualitative susceptibility rating according to its potential to impact the water supply. This rating includes such factors as the likelihood of a release of potential contaminants, the ability of the potential contaminant to travel to the river or stream and the ability of the intake to bypass contamination.

WHY ARE CONTAMINANTS IN THE DRINKING WATER?

Drinking water, including bottled water, may reasonably be expected to contain at least trace amounts of some contaminants, although it's important to remember that the presence of these constituents does not necessarily pose 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. The sources of our drinking water include rivers, streams, reservoirs, 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 pick up substances resulting from the presence of animals or from human activity. Below are some of these contaminants and their typical sources.

Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, 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 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, 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 can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

HOW ARE CONTAMINANTS REMOVED OR MITIGATED?

Raw surface or source water typically contains varying amounts of dissolved constituents and suspended particles. Complete water treatment is simply the process of trying to remove these dissolved constituents and suspended particles. The WBWCD operates three water treatment plants. The basic stages of water treatment employed at each of these plants are coagulation and flocculation, sedimentation, filtration, and disinfection.

COAGULATION AND FLOCCULATION is the first stage in water treatment. The goal of this stage is to bind up as much as possible the suspended particles contained in the raw water. This is accomplished by adding a coagulant to the raw water as it enters the plant from the aqueduct. What is produced from the mixing of the coagulant with the raw water are tuft-like aggregates called flocs. Flocculation is the name of the process. Over time the smaller aggregates of floc become larger particles of floc as more suspended matter is bound.

SEDIMENTATION is the second stage of water treatment. The goal of this stage is to settle out the floc and heavier materials. This is accomplished as the larger particles of floc and other heavy suspended material settle out of the water in long sedimentation basins. The resulting sediment at the bottom of the basin is sent to drying beds while the cleaner water is drained off the sedimentation basin and sent to filtration.

FILTRATION is the third stage of water treatment. The goal of the filtration stage is to remove as much of the remaining suspended particles and dissolves constituents as possible. This is accomplished by passing the water through a filter composed of sand and granulated activated carbon.

DISINFECTION is the final stage of water treatment. The goal of this stage is to destroy or inactivate disease-causing organisms. This is accomplished by adding chlorine to the filtered water.

DO YOU NEED TO TAKE SPECIAL PRECAUTIONS?

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 transplant, 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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infections by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

WHAT'S IN YOUR WATER?

The tables on the following pages list the results of testing and monitoring throughout the last year for all of the EPA mandated regulated and unregulated drinking water contaminants. Unregulated contaminant monitoring helps the EPA to determine where certain contaminants occur and whether it needs to start regulating those contaminants. Some of our data, though representative, are more than one year old. Because the concentrations of certain contaminants do not change frequently, the state allows less frequent monitoring.

RESULTS OF CRYPTOSPORIDIUM MONITORING

Cryptosporidium and giardia are microbial pathogens which are found in surface water throughout the United States. On a quarterly basis, WBWCD is required to test its sources of drinking water, as well as the treated tap water it delivers to Kaysville City, for the presence of cryptosporidium and giardia. Monitoring conducted by WBWCD indicates the presence of cryptosporidium and giardia in their source water (prior to treatment). WBWCD uses UV light in their water treatment which inhibits these organisms from reproducing and causing sickness. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

RESULTS OF RADON MONITORING

Radon is a radioactive gas that you can't see, taste, or smell, and is found throughout the U.S. At this time, radon monitoring is not required by the EPA; however, the EPA is considering making radon monitoring a requirement. The proposed MCL for radon is 4,000 pCi/L for systems which have a public education program for radon. For additional information, call your state radon program or call EPA's Radon Hotline (800-SOS-RADON).

WELLHEAD PROTECTION PLANS

A Wellhead Protection Plan has been written and implemented for all of WBWCD's groundwater sources. These plans define the protection zones for each of the wells, list the potential contamination sources within the zones, and identify what safeguards are in place to protect the aquifer (natural underground water storage formations made of silts, sands, gravels, and cobbles) from the contamination sources. It also consists of a plan to further monitor the contamination sources and educate those businesses or industries that may become sources.

HOW TO PREVENT WATER POLLUTION

The water you drink comes from reservoirs and is also pumped from deep wells. Paint, used motor oil, gasoline, antifreeze, or lawn and garden chemicals that you dispose of in the gutter or your yard can migrate to the rivers or filter down through the ground and pollute aquifers. Please don't impact the water supply for yourself and everyone else! Dispose of paint, used motor oil and other hazardous chemicals in a proper and safe manner. You can call the Division of Environmental Health at 801-944-6697 for the nearest location for hazardous waste disposal.

SAMPLING AND MONITORING RESULTS

The following tables show the results of our sampling and monitoring for the period of January 1st to December 31st, 2019. In the tables 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:

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Date - because of required sampling time frames i.e. yearly, 3 years, 4 years and 6 years, sampling dates may seem out of date.

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.

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.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5NTU is just noticeable to the average person.

Non-Detects (ND) - Laboratory analysis indicates that the constituent is either not present, or the levels are below what laboratory equip. can detect.

Parts per million (ppm) or Milligrams per liter (mg/L) - one part per million would be the equivalent of 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.

Treatment Technique (TT) - (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

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.

Culinary Water Conservation Tips

Wash only full loads of laundry.
Fix leaking faucets, pipes, toilets, etc.
Install water saving devices in faucets and appliances.
Do not let water run while shaving or brushing teeth.
Promptly replace salt in water softener when necessary.
Shorten your shower.

Secondary Water Conservation Tips

Don't water outside between 10:00 a.m. to 6:00 p.m.
Use mulch around plants and shrubs.
Don't allow children to play with the hose.
Sweep driveways and patios instead of using hose.
Use a drip irrigation system in your garden.
Use bucket to wash car and save hose for rinsing.

Water Conservation

With continued growth and the nature of the regional climate, there is no question that we will encounter future drought years. Future drought cycles will have an even greater effect than previous drought because of the increased population and higher demands on water systems. Conservation and improved water efficiency needs to become a way of life for all of us by incorporating better water use practices and valuing this precious resource more than ever. The Governor's office has set a goal of reducing per capita water use by 25% by the year 2050. Our thanks to those who have made and are making any effort to improve efficiency and conserve our water resources. It is still necessary to continue this effort to conserve water by educating ourselves on proper irrigation practices and changing attitudes and behaviors to reduce water waste.

Conservation alone will not meet all future water needs and the City will continue to develop water supplies, build new infrastructure and update existing infrastructure, but please remember: **If we each save a little, we all save a lot!**

Kaysville City Corporation
23 East Center Street
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RESIDENT
KAYSVILLE, UT 84037

REGULATED INORGANIC CONTAMINANTS						
This data is derived from samples collected from 2017 through 2021						
Contaminants	AVG	Low	High	MCL	MCLG	Typical Source
1.Antimony (ppb)	0.375	ND	0.800	6	6	Discharge from petroleum refineries; fire retardants
2. Arsenic (ppm)	.325	ND	1.3	10	ND	Erosion of natural deposits; runoff from orchards
3. Asbestos Collected 2021	MFL	ND	0.18	7	7	Decay of asbestos cement in water mains; erosion of natural deposits
4. Barium (ppm)	.118	0.0910	.179	2	2	Erosion of natural deposits; discharge of drilling wastes
5. Copper (ppb) Collected 2020	0.259	0.033	1.11	1.3	0	Corrosion of household plumbing systems, erosion of natural deposits; leaching from wood preservatives
6. Fluoride (ppm) Collected 2021	0.733	0.640	0.830	4	4	Fluoridated water in distribution system; Erosion of natural deposits
7. Lead (ppb) Collected 2020	.0012	.0005	.0038	0.015	0	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
8. Total (ppm) Nitrate+Nitrate	0.577	ND	1.80	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
9.Selenium (ppb)	0.500	ND	0.700	50	50	Erosion of natural deposits; discharge from mines
10. Sodium (ppm)	39.1	22.5	47.6	NA	NA	Erosion of natural deposits
11. Sulfate (ppm)	30.9	7.00	43.7	1000	NA	Erosion of natural deposits
12. Total Dissolved Solids (ppm)	403	352	444	2000	NA	Erosion of natural deposits

REGULATED ORGANIC CONTAMINANTS						
This data is derived from distribution locations sampled in 2021						
Contaminants	AVG	Low	High	MCL	MCLG	Typical Source
Total Trihalomethanes (ppb)	25.5	10.2	42.3	80	NA	By-product of drinking water chlorination
Haloacetic Acids (ppb)	14.4	7.7	21.2	60	NA	By-product of drinking water chlorination

REGULATED MICROBIOLOGICAL CONTAMINANTS				
This data is derived from samples collected from January through Dec 2021				
Contaminant	Percentage	MCL	MCLG	Typical Source
Total Coliform Bacteria	0.62	5%	0	Naturally present in the environment

REGULATED RADIOLOGIC CHEMICALS						
This data is derived from samples collected in 2021						
Contaminant (Units)	AVG	Low	High	MCL	MCLG	Typical Source
Gross Alpha Particles (pCi/L)	1.10	.20	2.6	15	0	Erosion of natural deposits
Gross Beta Particles (pCi/L)	2.77	1.90	4.40	50	0	Decay of natural & man-made deposits
Combined Radium (pCi/L)	.747	.380	1.70	5	0	Erosion of natural deposits

Descriptions of the significant potential sources of contamination located within the area tributary to the District's surface water sources are listed below.

Potential sources of Contamination	Description of Contaminants	Potential risk to Surface Water Score
Transportation of hazardous material along roadways and railroads	Accidents along highways and other major roads and along railroads could lead to spills of hazardous materials, which could lead to contamination of surface water sources	67 to 70
Industrial manufacturers and related companies and large commercial production and maintenance operations	Products and materials are used and stored in various quantities at these companies including acids, solvents, waste oils, other oils, gasoline diesel fuel, and other chemicals. Spills of these products and materials. Could lead to contamination of surface water sources.	55 to 69
Rural residential areas	Household septic systems that are failing contain bacteria and viral Pathogens that are discharged directly into the ground and may eventually the surface water source. Fuels, fertilizer, and pesticides that may be used and stored also have the potential to contaminate.	54 to 68
Agricultural activities	Runoff containing fertilizers, herbicides, and pesticides applied to croplands could enter the surface water sources. Also, runoff containing bacteria and viruses from pastures or animal farms has the potential to enter the surface water sources.	30 to 64
Mineral producers	Tunnels or striped land from mining operations could lead to higher acidity or sediment loads in surface water sources	42 to 55
Sewage treatment facilities	Untreated sewage could discharge directly into the surface water source in extreme or emergency conditions	22 to 35
Camping areas and other recreational activities	Camping wastes and fuel used for recreational vehicles have the potential to be spilled and enter the surface water sources.	25 to 27
Underground fuel storage	Fuel in underground storage tanks may enter groundwater and eventually reach the surface water sources if a leak occurs in the tank.	10 to 25

The susceptibility of the various water sources are given below.

WATER SOURCE	SUSCEPTIBILITY TO CONTAMINATION	RATIONALE FOR SUSCEPTIBILITY RANKING
Weber River Watershed	High	Presence of many potential sources of contamination
Farmington Creek Canyon	Moderate	Presence of a few potential sources of contamination
Burch Creek, Shepard Creek, Steed Creek	Low	No potential sources of contamination