



City of Orem

2022 Consumer Confidence Report

This Water Quality Report provides information about the excellent water the City of Orem delivers to you every day. The City's number one goal is to provide you and your family a safe and dependable supply of drinking water. Employees always strive to deliver a quality product and protect Orem's precious water resources. To ensure the safety of your water, water professionals routinely monitor water quality in accordance with federal and state laws, rules, and regulations. This water report provides test results in compliance with these laws and regulations.

Ensuring Safe Tap Water

Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate the water poses a health risk. National Primary Drinking Water Regulations (NPDWRs or primary standards) are legally enforceable standards that apply to public water systems. Primary standards protect public health by limiting the amount of certain contaminants in water provided by public water systems. Orem treats its water according to these regulations. The Food and Drug Administration (FDA) has established limits for contaminants in bottled water to protect public health. Some people may be more vulnerable to contaminants in drinking water than the general population.

Safe Drinking Water

In 1974, the Federal Safe Drinking Water Act (SDWA) was passed to establish standards for public drinking water. The law was amended in 1986 and again in 1996 and requires many actions to protect drinking water. The United States Environmental Protection Agency (USEPA) and the Utah State Department of Health set water quality standards that require water suppliers to monitor and treat for potentially harmful contaminants. Drinking water standards specifically relate to your health and are generally based on health effects that may occur if a person were to drink two liters (about two quarts) of water each day for seventy years.

Where Does My Water Come From?

Orem uses a variety of sources to provide water to its residents and customers. Approximately 60% of Orem's water comes from surface water sources, whereas 40% comes from ground water sources. Surface water sources include the Provo River, Deer Creek Reservoir, and Jordanelle Reservoir. All of Orem's surface water is treated (filtered and disinfected) at the Don A. Christiansen Regional Water Treatment Plant (DACRWTP), which is operated by the Central Utah Water Conservancy District (CUWCD). Orem's ground water sources consist of nine deep wells located throughout the city. Wells pump from subterranean aquifers and provide 25% of Orem's water. Two mountain spring sources located in Provo Canyon contribute 15% of Orem's water. Ground water (wells and springs) is pure enough to not require treatment. All of Orem's water, whether from surface or ground water, is blended together within the distribution system. In 2022, Orem produced over 7.7 billion gallons of clean, safe drinking water for its customers.

Health Care Alert

The DACRWTP has tested for cryptosporidium in its source water and the results show no presence. Cryptosporidium may at times be present in natural, untreated sources. Cryptosporidium must be ingested to cause disease and it may be spread through means other than drinking water. Ingestion of this parasite may cause abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Based on current knowledge, cryptosporidium does not present a health risk for the general public. Cryptosporidium has never been found in the DACRWTP's finished (treated) water.

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 of infections. These people should seek advice about drinking water from their health care providers. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791. They can provide EPA/CDC guidelines on appropriate means to lessen the risk of infection caused by cryptosporidium and other microbial contaminants.

Bacteriological And Chemical Testing

More than 1,389 drinking water samples were analyzed for bacteriological contamination in 2022. No bacteriological contamination was confirmed in these samples. Additional sampling was performed for disinfection byproducts, nitrates, inorganics, metals, pesticides, volatile organic compounds, radioactive materials, and other contaminants. Only trace amounts of contaminants identified in this document were detected in Orem source water. Orem drinking water meets or exceeds water quality standards set by the USEPA and the State of Utah.



Variances and Exemptions

Due to the high quality of Orem's water, the State of Utah and USEPA have granted the City of Orem and the Don A. Christiansen Regional Water Treatment Plant exemptions that allow for less frequent testing of some chemicals.

Source Water Contaminants

The sources of drinking water for the City of Orem include rivers, lakes, streams, reservoirs, wells, and springs. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive materials. It can also dissolve or pickup substances from human or animal activity. The following contaminants may be present in source water before it is treated:

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



Water Quality Data (Primary Standards)

The following tables list all detected contaminants in Orem's drinking water system during the period between 2017 to 2022. The presence of these contaminants does not necessarily indicate the water poses a health risk. A list of definitions and abbreviations is found below for reference. The interval for testing is determined by the type of contaminants, source, and quality of the water. Monitoring is required at least every 9 years for surface water and every 3 years for ground water.

Definitions and Abbreviations

MCL	Maximum Contaminant Level: 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.	mg/L	Milligrams Per Liter (mg/L) or Parts Per Million (ppm): A measurement of the concentration by weight of a substance per unit volume in water. One part per million corresponds close to one minute in two years or a single penny in \$10,000.
MCLG	Maximum Contaminant Level Goal: 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.	µg/L	Micrograms Per Liter (µg/L) or Parts Per Billion (ppb): A measurement of the concentration by weight of a substance per unit volume in water. One part per billion corresponds close to one minute in 2,000 years, or a single penny in \$10,000,000.
AL	Action Level: The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.	MNR	Monitoring Not Required.
Range	The range of detection of multiple samples for a contaminant.	ND	Non Detect: Laboratory analysis indicates that the constituent has not been detected.
pCi/L	Picocuries per Liter: A measure of the radioactivity in water.	TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
NTU	Nephelometric Turbidity Unit: A measure of the clarity of water. Turbidity in excess of 5 NTUs is just noticeable to the average person.	UV-254	A measurement of ultraviolet light absorption by organic carbon, measured at a wavelength of 254 nanometers per 1/cm (reciprocal centimeters).
UR	Unregulated.	NE	None Established.
µmhos/cm	Micromhos per Centimeter: A measurement of conductivity.	grains/gallon	A unit of water hardness defined as 1 grain of calcium carbonate dissolved in 1 gallon of water.
Sample Date	Though sampling intervals do vary, they are based on the USEPA sampling requirements.	mrem/yr	Measure of radiation absorbed by the body.
Pt-Co	Platinum-Cobalt: A measurement of water color. The US secondary drinking water standards recommend drinking water have no more than 15 Pt-Co.	TON	Threshold Odor Numbers: whole numbers that indicate how many dilutions it takes to produce odor-free water.
SI	Langelier Saturation Index: A measurement of a solution's ability to dissolve or deposit calcium carbonate, which is used to indicate if the water is corrosive or will produce scale.		

					City of Orem			DACRWTP			
Microbiological	Sample Date	Units	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Violation	Lowest Level Detected	Highest Level Detected	Violation	Typical Source of Contaminant or Other Comments
Total Coliform	2022	% positive per month	5%	0	0	0	No	0	0	No	Coliforms are naturally present in the environment.
Escherichia coli (E. coli)	2022	% positive per month	TT	TT	0	0	No	0	0	No	Fecal coliforms and E. coli only come from human and animal fecal waste.
Water Clarity	Sample Date	Units	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Violation	Lowest Level Detected	Highest Level Detected	Violation	Typical Source of Contaminant or Other Comments
Turbidity	2018 - 2022	NTU	95% <0.3	NE	0	0.433 (MNR)	No	0.013	0.028	No	Erosion of natural deposits and soil runoff. Turbidity is a measurement of water clarity.
Organic Material	Sample Date	Units	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Violation	Lowest Level Detected	Highest Level Detected	Violation	Typical Source of Contaminant or Other Comments
Total Organic Carbon	2022	mg/L	TT	NE	MNR	0	No	1.71	2.50	No	Naturally occurring.
UV-254	2022	1/cm	UR	NE	MNR	0	No	0.007	0.040	No	Naturally occurring. This is a measure of UV-absorbing organic compounds.
Disinfectants And Disinfection Byproducts	Sample Date	Units	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Violation	Lowest Level Detected	Highest Level Detected	Violation	Typical Source of Contaminant
Chlorine	2022	mg/L	4	4	0.05	1.2	No	0.3	2.0	No	Drinking water disinfectant.
Total Trihalomethanes (TTHM)	2022	µg/L	80	0	0	34.3	No	5.8	33.4	No	Byproduct of drinking water disinfection.
Haloacetic Acids (HAA5)	2022	µg/L	60	0	0	25.7	No	2.9	27.1	No	Byproduct of drinking water disinfection.
Volatile Organic Compounds	Sample Date	Units	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Violation	Lowest Level Detected	Highest Level Detected	Violation	Typical Source of Contaminant or Other Comments.
Chloroform (Trihalomethanes)	2022	µg/L	NE	70	0	21.0	No	2.5	20.5	No	Byproduct of drinking water disinfection.
Bromodichloromethane (Trihalomethanes)	2022	µg/L	NE	0	0	9.6	No	2.0	9.3	No	Byproduct of drinking water disinfection.
Dibromochloromethane (Trihalomethanes)	2022	µg/L	NE	60	0	21.0	No	1.1	3.8	No	Byproduct of drinking water disinfection.

					City of Orem			DACRWTP			
Inorganic Contaminants	Sample Date	Units	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Violation	Lowest Level Detected	Highest Level Detected	Violation	Typical Source of Contaminant
Arsenic	2018,2020, 2021, 2022	µg/L	10	0	0	1.3	No	0.5	0.5	No	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes.
Barium	2018,2020, 2021, 2022	mg/L	2	2	0.03	0.1	No	0.065	0.065	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chromium (total)	2018 2020, 2021	µg/L	100	100	0	50.7	No	ND	ND	No	Discharge from steel and pulp mills; erosion of natural deposits.
Copper	2021	mg/L	1.3	1.3	0	0.712	No	ND	ND	No	Erosion of natural deposits.
Cyanide	2018 2020, 2021	µg/L	200	200	0	6.36	No	ND	ND	No	Discharge from plastic and fertilizer factories; discharge from steel/metal factories.
Fluoride	2018,2020, 2021, 2022	mg/L	4	4	0	0.402	No	0.2	0.2	No	Erosion of natural deposits; discharge from fertilizer and aluminum factories.
Lead	2021	mg/L	0.015	0	0	0.0063	No	ND	ND	No	Erosion of natural deposits; corrosion of household plumbing.
Nickel	2018 2020, 2021	µg/L	100	100	0	16.9	No	ND	ND	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nitrate	2022	mg/L	10	10	0.215	1.532	No	ND	ND	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; erosion of natural deposits.
Selenium	2018,2020, 2021, 2022	µg/L	50	50	0	3.7	No	0.6	0.6	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Pesticides, PCBs, VOCs	Sample Date	Units	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Violation	Lowest Level Detected	Highest Level Detected	Violation	Typical Source of Contaminant or Other Comments
Pentachlorophenol	2018	µg/L	1	0	0	0.20	No	ND	ND	No	Discharge from wood-preserving factories used mainly to treat utility poles and cross arms.

PRECAUTIONARY STATEMENT: All pesticides and herbicides have both benefits and risks. Benefits can be maximized and risks minimized by reading and following the product labels. Pay close attention to the directions for use and the precautionary statements. The information on labels contains both instructions and limitations. The labels are legal documents and it is a violation of both federal and state laws to use pesticides and herbicides in a manner that is inconsistent with its labeling. The applicator is legally responsible for the proper use of these products.

					City of Orem			DACRWTP			
Radioactive Contaminants	Sample Date	Units	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Violation	Lowest Level Detected	Highest Level Detected	Violation	Typical Source of Contaminant
Alpha, gross	2018, 2020, 2021, 2022	pCi/L	15	0	0	4.1	No	0.5	0.5	No	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation.
Combined Radium 226/228	2017	pCi/L	5	0	0.5	0.54	No	0.34	2.79	No	Erosion of natural deposits.
Radium 226	2017	pCi/L	5	0	0.16	0.26	No	0.34	0.34	No	Erosion of natural deposits.
Radium 228	2018, 2020, 2021, 2022	pCi/L	5	0	0	0.47	No	0.28	0.28	No	Erosion of natural deposits.
Beta, gross	2019, 2021, 2022	mrem/yr	4	0	ND	ND	No	0.9	0.9	No	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation.

City of Orem Lead And Copper Results

The City of Orem collects over 30 samples from taps in homes every three years as required by the EPA. The City of Orem has never had a violation of the lead and copper standards since the EPA-required sampling began in 1992.

					City of Orem					
Lead and Copper	Sample Date	Units	AL	MCLG	Lowest Level Detected	Highest Level Detected	90th Percentile	# of sites over AL	Violation	Typical Source of Contaminant
Copper	2021	mg/L	1.3	1.3	0.026	0.815	0.253	0	No	Erosion of natural deposits; corrosion of household plumbing.
Lead	2021	mg/L	0.015	0	0.0005	0.0063	0.0024	0	No	Erosion of natural deposits; corrosion of household plumbing.

What Are Lead's Health Effects?

The primary source of lead exposure for most children is lead-based paint in older homes, though lead in drinking water can add to that exposure. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development, including behavioral problems and learning disabilities. Children six years old and under are most at risk because this is when the brain is developing. Children could show slight deficits in attention span and develop learning disabilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. The current maximum contaminant level (MCL) for lead is 0.015 mg/L, and the EPA is recommending the addition of a triggered level of 0.010 mg/L. Systems above 0.010 mg/L but below 0.015 mg/L would be required to set an annual goal for conducting replacements of city-owned service lines and conduct outreach to encourage residents to replace their plumbing that may be contributing to lead.

How Can I Reduce My Family's Exposure To Lead In Tap Water?

Lead in tap water is primarily from materials and components associated with service lines and home plumbing. The most important time to flush your internal plumbing is after long periods of no use, such as first thing in the morning, after work, or upon returning from vacation. Running cold water from the faucets for drinking can improve water quality by drawing fresh water into the home. Typically, 30 seconds to 2 minutes (or until you feel the temperature of the water change) is sufficient. Use cold water for cooking and drinking. When purchasing replacement plumbing products, make sure the products have been tested and certified to "lead-free" standards. Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at the USEPA Safe Drinking Water Hotline at (800) 426-4791 or <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>.

Water Quality Data (Secondary Standards)

Monitoring the following conditions (secondary standards) is not required and has been provided as a service. These conditions may affect the water aesthetically, but are not an actual health risk.

				City of Orem			DACRWTP			
Sample Date	Units	MCL	Lowest Level Detected	Highest Level Detected	Violation	Lowest Level Detected	Highest Level Detected	Violation	Typical Source of Contaminant	
Alkalinity	2018—2022	mg/L	NE	MNR	MNR	No	126	152	No	Naturally occurring.
Calcium	2021	mg/L	NE	39.4	61.9	No	MNR	MNR	No	Erosion of natural deposits.
Chloride	2021	mg/L	250	0.711	46.9	No	MNR	MNR	No	Erosion of natural deposits; agricultural or irrigation discharges; urban run-off due to the use of de-icing salts.
Color	2022	Pt-Co	15	1	1	No	ND	2	No	Naturally occurring.
Conductance	2018—2022	µmhos/cm	NE	203	708	No	390	500	No	Naturally occurring.
Crrosivity-Langelier	2021	SI	-0.3 - 0.3	-0.301	0.458	No	MNR	MNR	No	Naturally occurring.
Hardness	2018—2022	mg/L	NE	120	428	No	124	158	No	Naturally occurring.
		grain/gallon	NE	7	25	No	7.3	9.2	No	
Iron	2018,2021	µg/L	NE	0	0	No	ND	21.6	No	Erosion of natural deposits.
Manganese	2021	Mg/L	0.05	0	0.0373	No	MNR	MNR	No	Erosion of natural deposits.
Odor	2021	TON	3	1	1	No	MNR	MNR	No	Naturally occurring.
pH	2018—2022		6.5 - 8.5	7.21	8.28	No	7.58	8.12	No	Naturally occurring.
Sodium	2018, 2020, 2021	mg/L	500	0	73.2	No	7.6	58	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Sulfate	2018, 2020, 2021, 2022	mg/L	250	8.78	70.7	No	54	54	No	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland.
Total Dissolved Solids	2018, 2020, 2021, 2022	mg/L	500	112	380	No	230	343	No	Erosion of natural deposits.
Zinc	2021	mg/L	5	0	0.00613	No	MNR	MNR	No	Erosion of natural deposits.

Citizen Participation

If you have questions regarding any of the information contained in this document or you are interested in receiving a paper copy of this report, please contact the Orem Public Works Department at 311, (801) 229-7500, or www.orem.org. For a copy of the Don A. Christiansen Regional Water Treatment Plant consumer confidence report, please go to <https://www.cuwcd.com/resources.html>. More information about contaminants and potential health effects can be obtained by visiting www.epa.gov/safewater/ or calling the USEPA Safe Drinking Water Hotline at (800) 426-4791.

If you would like to participate in decisions that affect the City of Orem, you are invited to attend an Orem City Council meeting. These public meetings are typically held on the 2nd and 4th Tuesday of each month at 6:00 p.m. in the City Council Chambers at the Orem City Center located at 56 North State Street in Orem, Utah.

Pesticides and Herbicides

Though pesticides are helpful in controlling pests, and herbicides produce beautiful, healthy lawns and gardens, these products can be dangerous and have harmful effects on the environment when improperly used. When using pesticides and herbicides, you must follow label directions carefully to minimize harm to people and beneficial plants and animals. For more information on alternative pest control methods and proper application and disposal of pesticides and herbicides, contact the Utah State University Extension at (385) 268-6530.

When using pesticides and herbicides:

- Use pesticides and herbicides only when absolutely necessary. Properly identify pests and use the proper treatment. Read and follow label directions, which is the law. Chemicals must be in their original containers and approved for use in our area.
- Store chemicals in a cool, dry, well-ventilated location out of the sun such as a locked cabinet or room. They should be kept out of reach of children or animals. Keep the container tightly closed when not in use.
- The storage areas should have an impermeable floor (such as concrete) to eliminate the risk of leaks or spills from spreading and leaching into the unprotected ground.
- Never mix chemicals where they can enter into storm drains or ditches (e.g. streets, gutters, sidewalks, etc.). Mix on an impermeable surface so spills can be cleaned up thoroughly.
- Never dispose of excess or unwanted chemicals by dumping them on the ground, in a ditch, gutter, or storm drain. Such practices allow the hazardous chemicals to move directly into streams and lakes where they can be harmful to water quality, fish, and wildlife. In addition, pesticides dumped down the household drain can kill beneficial organisms that help treat wastewater in treatment plants or septic systems.
- Clean up spills and properly dispose of any extra chemicals by following manufacturer's instructions.
- Dispose of empty containers as instructed on the label.
- Don't over water after application.

Unregulated Contaminant Monitoring (UCMR 4)

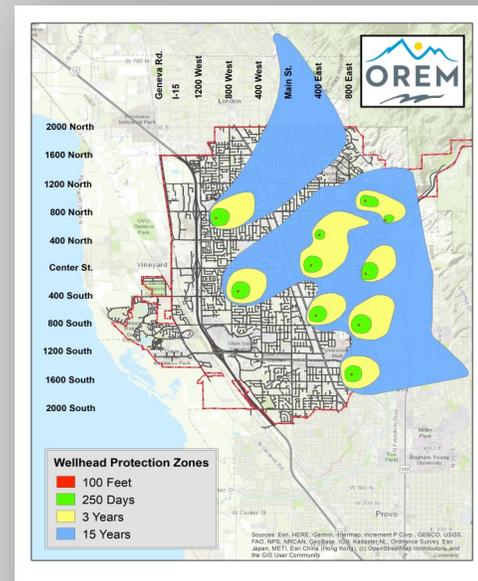
The 1996 Safe Drinking Water Act (SDWA) amendments require the EPA to issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems once every five years. Orem has completed the UCMR 4 testing for 30 contaminants. The EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water but do not have health-based standards set under the SDWA. The city will be testing for the UCMR 5 contaminants again in 2025.

				City of Orem			
UCMR 4	Sample Date	Units	MCL	Lowest Level Detected	Highest Level Detected	Exceeds MCL	Typical Source of Contaminant
Cylindrospermopsin	2019	µg/L	0.7	0	0	No	Common to freshwater and marine ecosystems; can under certain conditions (high nutrient concentrations and high light intensity) form scums or "blooms" at the surface of a water body.
Total microcystin	2019	µg/L	0.3	0	0	No	Common to freshwater and marine ecosystems; can under certain conditions (high nutrient concentrations and high light intensity) form scums or "blooms" at the surface of a water body.
Bromochloroacetic acid	2019, 2020	µg/L	NE	0	3.8	No	Haloacetic Acids (HAA6Br, HAA9) Byproduct of drinking water disinfection.
Bromodichloroacetic acid	2019, 2020	µg/L	NE	0	3.8	No	Haloacetic Acids (HAA6Br, HAA9) Byproduct of drinking water disinfection.
Chlorodibromoacetic acid	2019, 2020	µg/L	NE	0	0.76	No	Haloacetic Acids (HAA9) Byproduct of drinking water disinfection.
Dibromoacetic acid	2019, 2020	µg/L	NE	0	0.65	No	Haloacetic Acids (HAA5, HAA6Br, HAA9) Byproduct of drinking water disinfection.
Dichloroacetic acid	2019, 2020	µg/L	NE	0	17.0	No	Haloacetic Acids (HAA5, HAA9) Byproduct of drinking water disinfection.
Monobromoacetic acid	2019, 2020	µg/L	NE	0	0.33	No	Haloacetic Acids (HAA5, HAA6Br, HAA9) Byproduct of drinking water disinfection.
Monochloroacetic acid	2019, 2020	µg/L	70	0	2.2	No	Haloacetic Acids (HAA5, HAA9) Byproduct of drinking water disinfection.
Tribromoacetic acid	2019, 2020	µg/L	NE	0	2.2	No	Haloacetic Acids (HAA6Br, HAA9) Byproduct of drinking water disinfection.
Trichloroacetic acid	2019, 2020	µg/L	30	0	15.0	No	Haloacetic Acids (HAA5, HAA9) Byproduct of drinking water disinfection.
Manganese	2019	µg/L	500	0	1.4	No	Erosion of natural deposits; production of iron and steel alloys, batteries, glass, and fireworks. Occurs naturally in many food sources, such as leafy vegetables, nuts, grains, and animal products.

Protecting our Valuable Water Resources

Many of the homes and businesses in Orem are built within the city's drinking water source protection zones. The City of Orem obtains its drinking water from both groundwater, such as wells and springs, and surface water. Much of Provo Canyon is the watershed area supplying Orem with high-quality water we have come to expect. Improper usage, storage, and disposal of chemicals or other substances could potentially contaminate the groundwater and surface water sources. Examples of such substances are fertilizers, pesticides, cleaning solvents, motor oil, and fuels. All residents and property owners are encouraged to use best management practices when using and storing these substances. Proper storage, mixing, spill cleanup, watering, and disposal procedures for chemicals are essential in protecting our environment. The complete Drinking Water Source Protection Plan for the City of Orem is available for review at the Orem Public Works Department, 1450 West 550 North Orem, Utah, 84057, or online at www.orem.org/water

The city is a member of the Provo River Watershed Council, together with state agencies, water districts, municipalities, and other members of private and public organizations. Together, this group works to protect this precious watershed. As part of the Provo River Watershed Council, we promote and support watershed best management practices through partnerships, collaboration, education, and water quality monitoring. These efforts help ensure high quality source water is delivered to the DACRWTP.



CROSS CONNECTIONS

Exactly, what is a cross connection and why should I care? A cross connection is any connection that provides a path for contamination to occur and is not protected by a backflow prevention device or assembly. Common hazards in and around your house can contaminate your drinking water as well as your neighbor's. These hazards are known as cross connections and can result in contaminated water backflowing into your home's drinking water supply without you even knowing. Backflow events can occur every day in all types of water systems causing people to become sick or ill. Poor water quality can occur in just a few moments. Fortunately, a small inexpensive backflow assembly or device prevents backflows from occurring and can save millions of dollars in remediation expenses.

Examples of cross connections include a hose-end sprayer for fertilizers or pesticides that you use in your yard, a hose forced into a drain pipe to free a plug, or a hose end left submerged in a swimming pool, laundry sink, or any other container filled with fluids. In each of these examples, it may be possible for contaminated water to be introduced into the drinking water system. To protect your water from these types of 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 at a local hardware store.

Orem has adopted a Cross Connection Control Program that is required by federal and state agencies and designed to preserve safe drinking water once the water supply has entered the system. Cross connection control includes the methods, practices, and procedures used to prevent contamination and pollution of drinking water during backflow events. These controls are important and ensure that drinking water remains safe from bacteria, chemicals, and other substances that may enter the water system during abnormal pressure changes. The proper installation, use, and maintenance of this protection is required for backflow devices or assemblies and is outlined in Section 21-1-14 of the Orem City Code which can be accessed at <http://online.encodeplus.com/regs/orem-ut/doc-viewer.aspx#secid-1804>

Wise Water Use

Utah is the second driest state in the nation. Water conservation by individual citizens is an important part of making sure we'll have enough today and in the future. Here are some things we can all do to help preserve this precious resource:

- Fix plumbing leaks.
- Take shorter showers.
- Replace regular shower heads with low-volume heads. Remember, a bath takes about 36 gallons of water. A shower takes about 25.
- Be conservative with toilet flushes. Don't use the toilet for trash disposal.
- Don't leave the water running when shaving or brushing teeth.
- Wash full loads of laundry and dishes, not partial loads.
- Don't rinse dishes with running tap water. Instead, rinse dishes by dipping.
- Keep a pitcher of cold water in the refrigerator instead of running tap water until it cools.
- Water lawn, gardens, etc. in the coolest part of the day. Deep soak weekly instead of lightly sprinkling daily. Water the plants, not concrete.
- Use a bucket when washing cars. Don't let the hose run.



2020 Sanitary Survey

All public drinking water systems are periodically inspected to assess their construction, operations, and record keeping. The inspections identify conditions that may present a sanitary or public health risk. Points are assigned for any deficiencies. State of Utah officials completed a survey of Orem's system in July 2020 and did not assign any points against Orem's water system approval rating. For more information about sanitary surveys please go to deq.utah.gov/drinking-water/sanitary-surveys.