

Lehi City Water Quality Report 2016

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 five wells and a spring. They provide groundwater. We also utilize as a source the Central Utah Water Conservancy District.



The Drinking Water Source Protection Plan for Lehi City 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 from sources such as agricultural operations, residential pesticides and herbicides, and residential wastewater disposal systems. We have also developed management strategies to further protect our sources from contamination. Please contact us if you have questions or concerns about our source protection plan.

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.

If you have any questions about this report or concerning your water utility, please contact Lehi City Water at 385-201-1700. 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 second and fourth Tuesday of each month at 153 North 100 East in the City Administration Building Council Room at 7pm. Mayor Bert Wilson and council members Paige Albrecht, Chris Condie, Paul Hancock, Johnny Revill and Mike Southwick will be in attendance.

Lehi 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, 2016. 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.



[As per Lehi City ordinance culinary water is not to be used for any outside watering.](#)

Herbicides and Pesticides

When using herbicides:

- Store in a safe place that children can't get in to.
- Never mix chemicals in street, gutter, sidewalk or driveway, or any area where rinsing into storm drains or ditches is a possibility.
- Mix on an impermeable surface so spills can be cleaned up.
- Measure total square feet and use only amount needed.
- Follow label instructions for mixing proper amount and strength.
- Treat only area that is needed, no need to overuse chemical.
- Clean up spills and dispose of any extra chemical properly by following manufacturer instructions.

When using pesticides:

- Be willing to accept a low level of weed, insect, and plant disease infestation.
- Use pesticides only when absolutely necessary.
- Identify pests correctly and use proper pesticide.
- Read and follow label directions – the label is the law.
- Calibrate spreader/sprayer to keep from applying too much.
- Don't over water after application.
- Store chemicals in a dry, locked cabinet away from children and pets. Proper storage, mixing, spill cleanup, watering, and disposal procedures are essential in protecting our environment.

Culinary Conservation Tips

- Take 5 minute showers instead of baths and save up to 1,000 gallons of water per month.
- When washing hands turn water off while lathering.
- Plug the sink instead of running the water to rinse razors.
- Soak pots and pans instead of letting water run while scraping clean.
- Put left over ice cubes in house plants.
- Drop tissues in trash instead of flushing.
- Designate one glass for drinking water each day, or refill a water bottle to cut down on the number of glasses to wash.
- When buying new appliances, consider cycle and load size adjustments which are more water and energy efficient.



Secondary Water Conservation Tips

1. In almost all circumstances, plants tolerate or prefer variations in soil moisture which means it is fine for soil to dry out moderately between irrigations.
2. Don't rely on timer or controller to irrigate lawns on a set schedule. Instead, determine when lawn actually requires irrigation and manually activate the system as needed. Relatively dry soil under the grass is hard, does not give when stepped on and is slightly uncomfortable to walk on. Wetter soil depresses a bit when weight is applied to it.
3. Don't water between 10 a.m. and 6 p.m. since 50% of water emitted from sprinklers is lost to evaporation. Instead, irrigate when the sun is down or low in the sky.
4. Small areas of lawn can brown out during hot weather because of variations and inefficiencies in sprinkling systems. Supplement water to the area with a small lawn sprinkler or water by hand.
5. Mow lawn at a height of 3 to 3-1/2 inches to allow roots to penetrate deeper into the soil and increase drought hardiness of turf.
6. When irrigating turf, water long enough for the water to penetrate 6 to 12 inches into the soil. This also encourages deeper root development and reduces the frequency of required irrigations.
7. Irrigate shady and sunny areas according to need. Shady areas only require irrigation every 10 days or so. Sunnier areas may only require watering every 5-7 days.
8. Cover bare soil in the garden and flower beds with 2-3 inches of mulch. This saves water and greatly reduces weeding.
9. Hand-water or use drip irrigation to irrigate flowerbeds, vegetable gardens and shrub beds. Water should be placed near plants and penetrate the soil 6 inches deep for flowers and veggies. Water should penetrate 2 feet into the soil for established trees and shrubs.

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Lehi City Resident

Protect our water!

We at Lehi City 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.

Lehi City Water Dept.
PWS ID #25015



Lehi Water

LEHI CITY
WATER DEPARTMENT

2016 Annual
Water Quality Report





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.

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 requirements which a water system must follow.

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.

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

Arsenic. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or man made. 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.

Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their

blood, or problems with their kidneys, intestines, or liver.

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.

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. Lehi 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>.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Interesting Water Information

- Water is the most common substance found on Earth. However, 97% of the world's water is salty or otherwise undrinkable. An other 2% is locked in ice caps and glaciers. That leaves just 1% for consumption by all living creatures, including plants and animals.
- With access to just 5 liters of water each day, more than a billion people in the water poor regions around the globe survive on the same amount used to flush a toilet or take a 5 minute shower.
- Collectively, South African women and children walk a daily distance equivalent to 16 trips to the moon and back to get water.
- The average American pays just 25 cents per day for clean drinking water.
- About 6,800 gallons of water is required to grow a day's food for a family of four.
- 780 million people lack access to an improved water source.
- Unsafe water kills 200 children every hour.
- It requires 120 gallons of water for one egg.
- 70% of the human brain is water.
- In Nairobi urban poor pay 10 times more for water than in New York.
- 1 pound of wheat requires 132 gallons of water.
- Refilling a half-liter water bottle 1,740 times with tap water is the equivalent cost of a 99 cent water bottle at a convenience store.
- 1 pound of chicken requires 468 gallons of water.
- The average family of four uses 180 gallons of water per day outdoors. It is estimated that over 50% is wasted from evaporation, wind, or overwatering.
- If the entire world's water were fit into a 4 liter jug, the fresh water available for us would equal only about one tablespoon.
- If everyone in the US used just one less gallon of water per shower every day, we could save some 85 billion gallons of water per year.
- In a 100-year period, a water molecule spends 98 years in the ocean, 20 months as ice, about 2 weeks in lakes and rivers, and less than a week in the atmosphere.
- A small bag of peanut M&M's requires 300 gallons of water to produce.
- One broken sprinkler head could waste up to 25,000 gallons of water over a 6 month irrigation season.
- Lehi City used 4.4 billion gallons of secondary water last year.



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	0	N/A	0	Presence of coliform bacteria in 5% of monthly samples	2016	Naturally present in the environment
Turbidity for Ground Water	N	0.05-2.1	NTU	N/A	5	2016	Soil runoff
INORGANIC CONTAMINANTS							
Arsenic	N	ND-3	ppb	0	10	2016	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	N	65-247	ppb	2000	2000	2016	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper a. 90% results b. # of sites that exceed the AL	N	A. 132 b.0	ppm	1300	AL=1300	2015	Corrosion of household plumbing systems; erosion of natural deposits
Lead a. 90% results b. # of sites that exceed the AL	N	a. 2 b. 0	ppb	15	AL=15	2015	Corrosion of household plumbing systems, erosion of natural deposits
Fluoride	N	200-400	ppb	4000	4000	2016	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	N	ND-2	ppm	10	10	2016	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	ND-10	ppb	50	50	2016	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	N	5-42	ppm	500	None set by EPA	2016	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
Sulfate	N	5-48	ppm	1000	1000	2016	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
Thallium	N	ND-ND	ppt	1	2000	2016	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
TDS (Total Dissolved solids)	N	90-344	ppm	2000	2000	2016	Erosion of natural deposits
DISINFECTION BY-PRODUCTS							
TTHM [Total trihalomethanes]	N	ND-43	ppb	0	80	2016	By-product of drinking water disinfection
Haloacetic Acids	N	ND-25	ppb	60	60	2016	By-product of drinking water disinfection
Chlorine	N	200	ppb	4000	4000	2016	Water additive used to control microbes
RADIOACTIVE CONTAMINANTS							
Alpha emitters	N	ND-8.2	pCi/l	0	15	2016	Erosion of natural deposits
Combined	N	0.67	pCi/l	0	5	2016	Erosion of natural deposits
Radium 226	N	0.1	pCi/l	0	5	2016	Erosion of natural deposits
Radium 228	N	ND-1.3	pCi/l	0	5	2016	Erosion of natural deposits