



Lehi City Water Quality Report 2014

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 Lee Barnes at 385-201-1900. 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 first and fourth Tuesday of each month at 153 North 100 East in the City Administration Building Council Room at 7p.m. Mayor Bert Wilson and council members Johnny Revill, Mark Johnson, Michael Southwick, Chris Condie and Paul Hancock 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, 2014. 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 pests. Proper storage, mixing, spill cleanup, watering, and disposal procedures are essential in protecting our environment.

Culinary Conservation Tips

- Turn off water while brushing teeth and save up to 4 gallons a minute.
- Put food coloring in toilet tank. If it seeps into the bowl without flushing, there is a leak. Make repairs and save gallons of water.
- Put dropped ice cubes in house plants instead of sink.
- Wash fruits and vegetables in a pan rather than running water. Then use that water for your household needs.
- Shorten showers by a single minute and save approximately 700 gallons of water a month.
- Keep bottle or pitcher of drinking water in the refrigerator instead of running the tap to cool it each time you want a drink.



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 increases 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. (How Can I Keep My Landscape Looking Lovely When There are Water Restrictions / USU Extension)

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.



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Lehi Water

LEHI CITY
WATER DEPARTMENT

2014 Annual
Water Quality Report

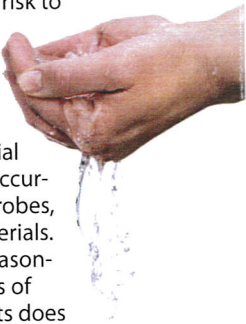




In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

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.



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 materi-

als 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 (800-426-4791).

Interesting Information

- About 1,400 gallons of water are used to produce a meal of a quarter- pound hamburger, an order of fries and a soft drink.
- 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.
- The earth is a closed system, similar to a terrarium, meaning that it rarely loses or gains extra matter. The same water that existed on the earth millions of years ago is still present today.
- Every glass of water brought to your table in a restaurant requires another two glasses of water to wash and rinse the glass. Since nearly 70 million meals are served each day in US restaurants, we'd save more than 26 million gallons of water if only one person in four declined the complimentary glass of water.
- A person can live without food for more than a month, but can only survive for approximately one week without water, depending upon conditions.
- A typical garden hose can deliver 50 gallons of water in just 5 minutes.

Tips for a bountiful harvest and beautiful flower beds watering just 2 days a week:

- Amend your soil. Adding organic matter, particularly compost, will give better root penetration, greater water retention in your soil, as well as many other beneficial effects.
- MULCH! Use a 3 to 4 inch layer of mulch around all your plants. This will suppress weeds that compete for moisture and nutrients. It will also keep your soil cool and moist by insulating it from sun and drying winds. You will realize increased soil fertility and better structure as well using organic mulches. Even moisture conditions provided by mulch will also lessen the likelihood of gardening problems such as cracking or blossom end rot on tomatoes.
- Use drip systems or hand water judiciously. Drippers are extremely efficient, and if utilized with timers, will save you time as well as water.
- Water in the evening or at night. This will minimize evaporation and put the water to work growing your plants.
- Plant in wide rows or blocks. This will minimize open areas between plants, allow plants to shade the soil, and increase the ratio of plants to soil allowing for more efficient utilization of water, and your garden space.
- Pull those weeds! Weeds compete for light, nutrients and especially for water.
- Choose drought resistant plants.
- Protect your garden from drying prevailing winds. Our winds come from the West in summer (southwest). Fences, hedges, the leeward side of the house are all good windbreak areas to plant.

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	2014	Naturally present in the environment
Turbidity for Ground Water	N	0-3	NTU	N/A	5	2012	Soil runoff
INORGANIC CONTAMINANTS							
Arsenic	N	ND-3400	ppt	0	10000	2012	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	N	20-229	ppb	2000	2000	2012	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 .171 b.0	ppt	1300000	AL=1300000	2012	Corrosion of household plumbing systems; erosion of natural deposits
Lead a. 90% results b. # of sites that exceed the AL	N	a. 3 b. 0	ppt	0	AL=15000	2012	Corrosion of household plumbing systems, erosion of natural deposits
Fluoride	N	200-500	ppb	4000	4000	2012	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	N	200-1700	ppb	10000	10000	2014	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	1100-6000	ppt	50000	50000	2012	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	N	5-45	ppm	None set by EPA	None set by EPA	2012	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
Sulfate	N	5-85	ppm	1000	1000	2012	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
Thallium	N	ND-2600	ppt	1	2000	2013	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
TDS (Total Dissolved solids)	N	84-430	ppm	2000	2000	2012	Erosion of natural deposits
DISINFECTION BY-PRODUCTS							
TTHM [Total trihalomethanes]	N	ND	ppt	0	80000	2014	By-product of drinking water disinfection
Haloacetic Acids	N	ND	ppb	0	60	2014	By-product of drinking water disinfection
Chlorine	N	200	ppb	4000	4000	2014	Water additive used to control microbes
RADIOACTIVE CONTAMINANTS							
Alpha emitters	N	1-4	pCi/l	0	15	2014	Erosion of natural deposits
Radium 228	N	1	pCi/l	0	5	2014	Erosion of natural deposits