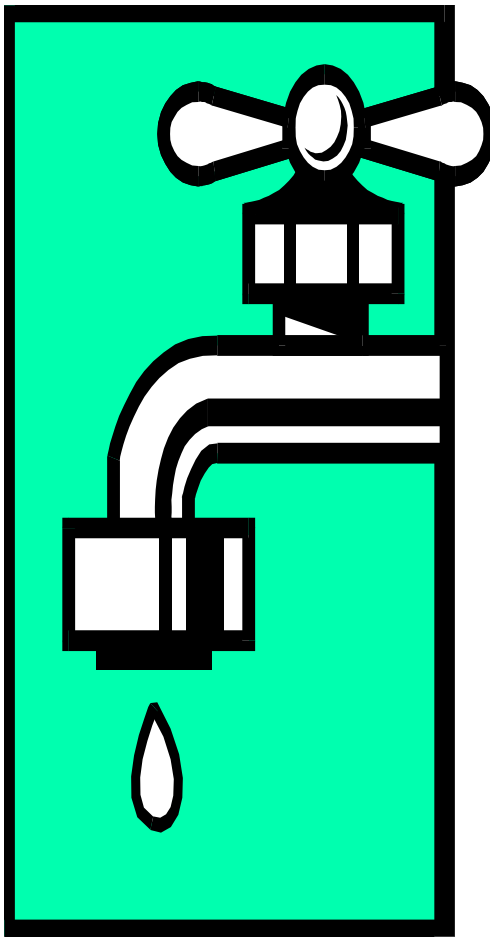
2007 Annual Water Quality Report



Lehi City Water Dept.

PWS ID #25015

Lehi City
Water Quality Report
2007

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 comes from four wells and a spring. They provide groundwater.

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. Potential contamination sources common in our protection areas are agricultural operations, residential pesticides and herbicides, and residential wastewater disposal systems. Our sources have a low susceptibility to potential contamination. 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 we 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.

I'm pleased to report that our drinking water meets federal and state requirements.

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 call Lee Barnes at (801) 768-7102 extension 3**.** 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 7 p.m.
Mayor Howard Johnson and council members, Johnny Barnes, Johnny Revill, Mark Johnson, Stephen Holbrook and James Dixon will be in attendance.

Lehi City 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, 2007. 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 have provided the following definitions:

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.
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.
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.

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.

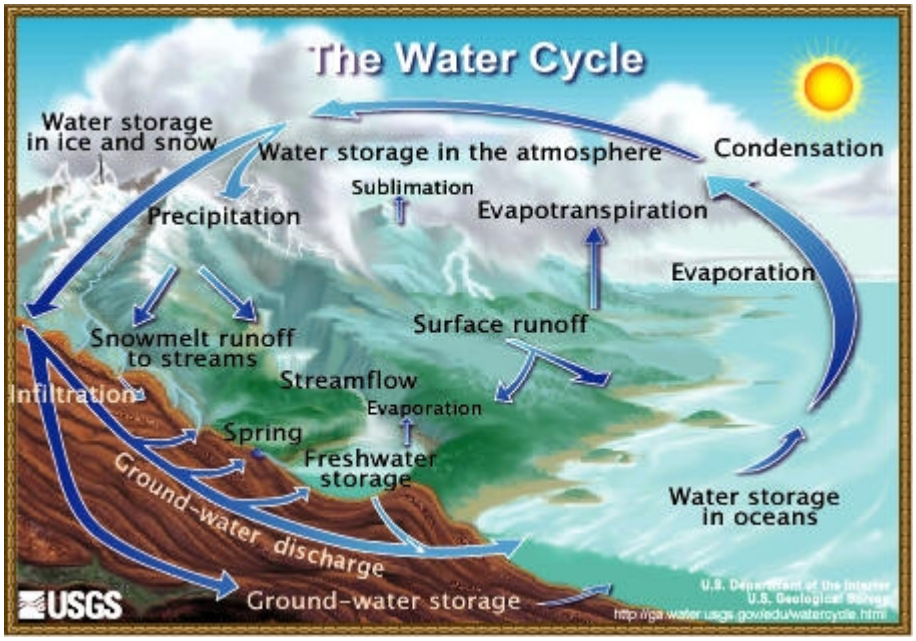
TEST RESULTS							
Contaminant	Violation Y/N	Level Detected ND/Low-High	Unit Measurement	MCLG	MCL	Date Sampled	Likely Source of Contamination
Radioactive Contaminants							
Alpha emitters	N	3	pCi/1	0	15	2007	Erosion of natural deposits
Radim-228	N	ND-1	pCi/1	0	5	2007	Erosion of natural deposits
Inorganic Contaminants							
Barium	N	11-108	ppb	2000	2000	2007	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	N	2-3	ppb	100	100	2007	Discharge from steel and pulp mills; erosion of natural deposits
Copper a. 90% results b. # of sites that exceed the **AL**	N	a. ND-228 b.0	ppb	1300	AL=1300	2005-2007	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	N	200-300	ppb	4000	4000	2007	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**	N	a. ND-8 b.0	ppb	0	AL=15	2005-2007	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	N	200-1700	ppb	10000	10000	2007	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	2-3	ppb	50	50	2007	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	N	27-35	ppm	None set by EPA	None set by EPA	2007	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
Sulfate	N	22-64	ppm	1000*	1000*	2007	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
TDS (Total Dissolved solids)	N	233-451	ppm	2000**	2000**	2006	Erosion of natural deposits
Disinfection By-Products							
TTHM [Total trihalomethanes]	N	ND-6	ppb	0	100	2007	By-product of drinking water disinfection
Haloacetic Acids	N	ND-7	Ppb	60	n/a	2007	By-product of drinking water disinfection

The Water Cycle

An important concept for all of us to understand is the cycle that water takes to get to Lehi. Because we live in an area that is dry and arid it is important that we understand where our water comes from and how little we have.

To show how little we have on a world wide scale let's see where the water is located. The oceans are the largest bodies of water on the earth. They contain 97% of the water. Fresh water accounts for the other 3%. Two percent of the fresh water is located in glaciers and the ice caps of the Polar Regions leaving only about 1% that we can use. This 1% is circulated annually by precipitation, transpiration, and evaporation. This critical amount includes snow and rain, flowing surface water, underground recharge water and atmospheric water vapor.

The water cycle has no starting point. But, we can begin at the ocean where most of the Earth's water exists. The sun, which drives the water cycle, heats water in the ocean causing it to evaporate as vapor into the air. Some of it ***evaporates*** as vapor into the air. Ice and snow can ***sublimate*** directly into water vapor. Rising air currents take the vapor up into the ***atmosphere***, along with water from ***evapotranspiration***, which is water transpired from plants and evaporated from soil. The vapor rises into the air where cooler temperatures cause it to condense into clouds. As air currents move clouds around the globe, cloud particles collide, grow, and fall out of the sky as ***precipitation***. Some precipitation falls as snow and can accumulate as ice caps and glaciers, which can store frozen water for thousands of years. Snow packs in warmer climates often thaw when spring arrives, and the melted water flows overland as ***snowmelt***. Precipitation that falls on the land flows over the ground as ***surface runoff***. A portion of the runoff water enters the valley's streams which flow towards the lakes or oceans. Some of the water percolates into the ground and becomes part of the aquifer that we use for our water supply. This is called ***ground water***. This infiltration replenishes the water stored in the ***aquifer*** helping to keep a constant supply for us to use. As the water moves through the ground it sometimes surfaces as ***freshwater springs***. Eventually the movement of the water finds its way back to the ocean where the cycle begins all over.



Water Saving Tips:

*Plant during the spring or fall when the watering requirements are lower.

* To determine if it's time to water your lawn, simply walk across it. If you leave footprints, it's time to water.

* Time your shower to keep it under 5 minutes and you will save up to 1000 gallons a month!

* Fix a leaky faucet and save 140 gallons a week.

* Water plants deeply but less frequently to create healthier and stronger landscapes.

Drought Tolerant Plants for Utah:

Perennials - Yarrow, Rock Cress, Sea Pinks, Silver Mound, Purple Rock Cress, Jupiter's Beard, Snow-in-Summer, Shasta Daisy, Tickseed, Sweet William Dianthus, Purple Coneflower, Blanket Flower, Red Hot Poker, Flax, Evening Primrose, Russian Sage, Penstemon, Black-Eyed Susan, Sedum, English Lavender, Anise Hyssop

Shrubs - Alpine Currant, Barberry, Bluemist Spiraea, Butterfly Bush, Juniper, Mugo Pine, Ninebark, Oregon Grape, Potentilla, Red Twig Dogwood, Rose of Sharon, Sumac

Trees - Flame Maple, Hedge Maple, Hackberry, Homestead Elm, Honeylocust, Purplerobe Locust, Springsnow Crabapple, Zelkova