Layton City is pleased to present you with the 2008 Drinking Water Quality Report. This report contains information about the quality of the water delivered to you every day. The City’s constant goal is to provide you with a safe and dependable supply of drinking water and we want you to understand the efforts made to continually improve the water treatment process and protect your water resources. Layton City is committed to ensuring the quality of your water.

There were NO VIOLATIONS of samples taken during 2008 for Layton City's water system. Layton City's drinking water meets all Federal and State requirements.

Layton City routinely monitors for constituents in your drinking water in accordance with Federal and Utah State laws. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. Those contaminants types can include microbial (viruses and bacteria), inorganic (salts and metals), organic (byproducts of industrial processes or petroleum products), pesticides, herbicides, or radioactive materials. 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.
Where does my water come from?

Layton City's water sources include groundwater from City wells and purchased water from Weber Basin Water Conservancy District. You may receive a blend of both sources, depending on the time of the year and your location in the City.

Groundwater is drawn from the Delta aquifer by the following wells:

- Church Street Well
- Fort Lane Well
- Greenleaf Well
- Hillfield Well
- Sandridge Well #2 (Inactive during 2008)
- Shop Well

The City also purchases water from Weber Basin Water Conservancy District (WBWCD). WBWCD's water includes treated surface water, which comes primarily from the Weber River. Some supplemental water comes from smaller drainage basins and creeks along the Wasatch Front, including the Burch, Strong, Farmington, Shephard, Steed, Ricks, and Stone Creeks. WBWCD also has 13 large capacity wells that draw from groundwater aquifers. For more information on WBWCD's Water Quality Report, go to www.weberbasin.com or call 771-1677.

What is being done to protect my water?

Layton City Public Works & Engineering Department continues to work toward providing top quality water to every tap. The City asks 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. On November 5, 1998, Layton City passed Ordinance 98-72, effectively establishing a Drinking Water Source Protection Plan as Chapter 13.11 of the Layton City Code. The Layton City Code can be viewed at www.laytoncity.org. Additional information regarding the City's Drinking Water Source Protection Plan can be viewed at the Layton City Engineering office located at 437 N. Wasatch Drive.

The table on the following page shows the results of Layton City's monitoring for detected contaminants for the period of time from January 1st to December 31st, 2008, or the most recent sampling results within the past five years. The table also shows Weber Basin Water Conservancy District’s monitoring results where applicable, because the District supplies water to Layton City each year.

In order to ensure tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Maximum Contaminant Levels (MCL’s) 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.

Important Health Information

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 at 1-800-426-4791.
### Microbiological Contaminants

<table>
<thead>
<tr>
<th>Contaminant Name</th>
<th>Violation</th>
<th>Level Detected</th>
<th>Source</th>
<th>Unit</th>
<th>MCLG</th>
<th>MCL</th>
<th>Date of Most Recent Sample</th>
<th>Likely Contamination Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Coliform Bacteria</td>
<td>NO</td>
<td>&lt;1.0%</td>
<td>Layton City Weber Basin</td>
<td>N/A</td>
<td>0</td>
<td>Naturally present in the environment</td>
<td>Monthly in 2008</td>
<td></td>
</tr>
<tr>
<td>Turbidity *</td>
<td>NO</td>
<td>0.73</td>
<td>Layton City Weber Basin</td>
<td>NTU</td>
<td>N/A</td>
<td>Soil runoff</td>
<td>2004 - 2008</td>
<td></td>
</tr>
</tbody>
</table>

### Radioactive Contaminants

<table>
<thead>
<tr>
<th>Alpha Emitters</th>
<th>NO</th>
<th>2.12</th>
<th>Layton City Weber Basin</th>
<th>pCi/L</th>
<th>0</th>
<th>15</th>
<th>2004 - 2008</th>
<th>Erosion of natural deposits</th>
</tr>
</thead>
</table>

### Inorganic Contaminants

| Antimony | NO | 0.6 | Layton City Weber Basin | ppm | 6 | 6 | 2004 - 2008 | Discharge from petroleum refineries; leaching from natural deposits; erosion of natural deposits |
| Arsenic | NO | 1.63 | Layton City Weber Basin | ppm | N/A | 50 | 2004 - 2008 | Erosion of natural deposits; leaching from natural deposits; corrosion of drinking water systems; erosion of natural deposits |
| Asbestos | NO | W | Layton City Weber Basin | ppm | 7 | 7 | 2004 - 2008 | Erosion of natural deposits; corrosion of drinking water systems; erosion of natural deposits |
| Barium | NO | 0.13 | Layton City Weber Basin | ppm | 2 | 2 | 2004 - 2008 | Discharge of drilling fluids; corrosion of drilling fluids; erosion of natural deposits |
| Chromium | NO | ND | Layton City Weber Basin | ppm | 100 | 100 | 2004 - 2008 | Erosion of natural deposits; corrosion of drinking water systems; erosion of natural deposits |
| Copper (a) 90% results | NO | (b) 0 | Layton City | ppm | 336 | 1300 | August 2008 | Corrosion of household plumbing systems; erosion of natural deposits |
| (b) # of sites that exceed AL | | | | | | | | |
| | NO | (a) ND | Layton City | ppm | | | | |
| | Fluctide | NO | 0.10 | Layton City Weber Basin | ppm | 4 | 4 | 2004 - 2008 | Water floodings of lakes, erosion of natural deposits; discharge from industrial and agricultural activities |
| Lead (a) 90% results | NO | (b) 1 | Layton City | ppm | 0 | 15 | August 2008 | Corrosion of household plumbing systems; erosion of natural deposits |
| (b) # of sites that exceed AL | | | | | | | | |
| | Nitrate | NO | 1.11 | Layton City Weber Basin | ppm | 10 | 10 | 2004 - 2008 | Natural from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits |
| | Nitrite | NO | W | Layton City Weber Basin | ppm | 1000 | 1000 | 2004 - 2008 | Natural from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits |
| | Selenium | NO | 0.5 | Layton City Weber Basin | ppm | 50 | 50 | 2004 - 2008 | Erosion of natural deposits; discharge from mines |
| | Sodium | NO | 15.9 | Layton City Weber Basin | ppm | None set by EPA | None set by EPA | 2004 - 2008 | Erosion of natural deposits |
| | Sulfate ** | NO | 12.8 | Layton City Weber Basin | ppm | None | 1000 | 2004 - 2008 | Erosion of natural deposits |
| | Thallium | NO | 1.0 | Layton City Weber Basin | ppm | 0.5 | 2.0 | 2004 - 2008 | Leaching from ore processing sites; discharge from electronic waste; glass; and mining activities |
| | TDS *** | NO | 204.0 | Layton City Weber Basin | ppm | None | 2000 | 2004 - 2008 | Erosion of natural deposits |

### Organic Contaminants (Regulated)

| Total Trihalomethanes | NO | 53.0 | Layton City | ppm | None | 80 | 2008 | By-product of drinking water chlorination |
| Halocetic Acids | NO | 8.8 | Layton City | ppm | None | 60 | 2008 | By-product of drinking water chlorination |

### Organic Contaminants (Unregulated by EPA)

#### Chloroform

<table>
<thead>
<tr>
<th>Level Detected</th>
<th>Date Sampled</th>
<th>Unit</th>
<th>Level Detected</th>
<th>Date Sampled</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB - 11.6, ND</td>
<td>2004 - 2008</td>
<td>ppb</td>
<td>Chloroform</td>
<td>WB - 11.6, ND</td>
<td>2004 - 2008</td>
</tr>
<tr>
<td>LC - 39.4, ND</td>
<td></td>
<td></td>
<td>Bromodichloromethane</td>
<td>LC - 5.8, ND, 3.3</td>
<td></td>
</tr>
<tr>
<td>LC - 10.7, ND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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* Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of general water quality.

** If the sulfate level of a system is greater than 500 ppm, the supplier must satisfactorily demonstrate that no better water is available and that the water shall not be available for human consumption from commercial establishments. In no case shall water having a level above 1,000 ppm be used.

*** If TDS is greater than 1,000 ppm the supplier shall demonstrate to the Utah Drinking Water Board that no better water is available. The Board shall not allow the use of an inferior source of water if a better source is available.
Definitions of Terms and Abbreviations

**AL** - Action Level - AL is 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 or 6 years, sampling dates may seem out of date. The date shown in the table is the most recent sample for the samples included in the detected range.

**HIGH & LOW** - For water systems that have multiple sources of water, the Utah Division of Drinking Water has given water systems the option of listing test results of the constituents in one table, instead of multiple tables. Thus, the lowest and highest values detected in multiple sources are recorded in the same space in the report table.

**MCL** - Maximum Contaminant Level - The MCL is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as possible using the best available treatment technology.

**MCLG** - Maximum Contaminant Level Goal - The 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.

**MFL** - Million Fibers per Liter - MFL is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

**ND** - Non-Detect - ND indicates that a laboratory analysis showed no presence of the constituent.

**NTU** - Nephelometric Turbidity Unit - NTUs are a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/L** - Picocuries per liter - pCi/L is a measure of the radioactivity in water.

**ppb** - Parts per billion or micrograms per liter - One part per billion corresponds to one minute in 1,000,000 years, or a single penny in $10,000,000,000.

**ppm** - Parts per million or milligrams per liter - One part per million corresponds to one minute in 2,000 years, or a single penny in $10,000.

**ppt** - Parts per trillion or nanograms per liter - One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000,000.

**TTU** - Turbidity Unit - TTU is a measure of the amount of light scattered by a water sample.

**W** - Waiver - Because some chemicals are not used or stored in areas around drinking water sources, some water systems have been given waivers from the State exempting them from taking certain chemical samples. These waivers are also tied to Drinking Water Source Protection Plans.

Additional Monitoring Information

**Radon**

At this time, radon monitoring in drinking water is not required by the EPA. However, the EPA is considering making radon monitoring a requirement. Radon is a radioactive gas that you can’t see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. It can also get into the indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. (You should pursue radon removal for your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren’t too costly. For additional information, call Utah’s radon program or the EPA’s Radon Hotline (1-800-SOS-RADON).

**Unregulated Contaminants**

Unregulated contaminants are those for which the Environmental Protection Agency (EPA) has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is required. In May 2002, Layton City sampled for twelve UCMR contaminants as required by List 1 of the UCMR rule. The results indicated that the measured amounts of each contaminant were below the MRLs (minimum reporting level) for each contaminant. For further information on the UCMR Rule or List 1 contaminants, contact the Environmental Protection Agency’s Safe Drinking Water Hotline at 1-800-426-4791 or visit the EPA website at www.epa.gov/safewater/hfacts.html.

**Cryptosporidium & Giardia**

Cryptosporidium and giardia are microbial pathogens found in surface water throughout the U.S. Although filtration removes cryptosporidium and giardia, the most commonly used filtration methods cannot guarantee 100% removal. Monitoring conducted by Weber Basin during 2002 indicates the presence of cryptosporidium and giardia in their source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. 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 have more difficulty and are at greater risk of developing severe, life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested for it to cause disease, and it may be spread through means other than drinking water. Weber Basin continues an aggressive sampling program to help identify possible sources and minimize the effects to the water quality.

**W** - Waiver - Because some chemicals are not used or stored in areas around drinking water sources, some water systems have been given waivers from the State exempting them from taking certain chemical samples. These waivers are also tied to Drinking Water Source Protection Plans.
EVERY DROP COUNTS!
PLEASE CONTINUE TO DO YOUR PART IN CONSERVING WATER

Why Should I Conserve Water?
Over the past twenty years, Utah’s population has increased by over 1 million people, from 1.72 million to our current population of 2.74 million people. This is equivalent to adding another city the size of Salt Lake City to Utah’s semi-arid terrain about every five years. The Governor’s Office of Planning and Budget predicts that the population of Utah will nearly double to 5 million people by the year 2050. With these numbers, Utah earned a spot as the fastest growing state in the nation, according to the US Census Bureau. Unfortunately, Utah also ranks number two in the country’s driest states, second only to Nevada. Clearly, this poses a problem to Utah’s limited water resources.

Tips to Conserve Water Outdoors
+ Water your lawn only when it really needs it, usually no more than twice per week. Step on your grass. If it springs back when you lift your foot, it doesn’t need water.
  Water savings: 750 - 1,500 gallons/month
+ Position sprinklers to avoid watering pavement.
  Water savings: 500 gallons/month
+ Water after 6 p.m. and before 10 p.m., when the potential for evaporation is lowest. Early morning is better than dusk since it helps prevent the growth of fungus.
  Water savings: 300 gallons/month
+ Set lawn mower blades to cut grass about 3” long. Shorter grass allows the soil to dry out more quickly and increases watering requirements.
  Water savings: 500 - 1,500 gallons/month
+ Turn off sprinklers on windy days to prevent evaporation. Never water in the rain and cut back on watering during overcast days.
  Water savings: 300 gallons in one watering
+ Sweep walks and driveways instead of using a hose.
  Water savings: 150 gallons each time
+ Instead of a hose, use a bucket of water to wash the car.
  Water savings: 150 gallons each time
+ When installing new landscaping, keep water in mind. Talk to nursery employees about low-water use plants and trees.
  Water savings: 750 - 1,500 gallons/month
+ Put a layer of mulch (chunks of bark, peat moss, or gravel) around trees and plants to slow evaporation.
  Water savings: 750 - 1,500 gallons/month
+ Allow your children to play in the sprinklers to beat the heat, but try to combine it with a regular lawn watering.
  Water savings: 750 - 1,500 gallons each time
+ Dispose of hazardous materials properly. One quart of oil can contaminate 250,000 gallons of water.
  Water savings: Potentially significant

Tips to Conserve Water Indoors
+ Fix leaky faucets, toilets, and plumbing joints. To check for a leaky toilet, place a few drops of food coloring in the tank. If color appears in the bowl without flushing, you have a leak that should be repaired.
  Water savings: 400 - 600 gallons/month
+ Shorten your showers by just one or two minutes.
  Water savings: 700 gallons/month
+ Run only full loads in dishwashers and clothes washers.
  Water savings: 300 - 800 gallons/month
+ Install low-flow showerheads and aerators on sink faucets. Heads cost around $8.00 - $50.00, depending on features and faucet aerators cost $5.00 - $10.00. Flows are restricted without reducing water pressure.
  Water savings: 500 - 800 gallons/month
+ Never use your toilet as an ashtray or wastebasket.
  Water savings: 400 - 600 gallons/month
+ Turn off the water while brushing your teeth.
  Water savings: 60 gallons/month
+ Turn off the water while shaving. Fill the sink with a few inches of water to rinse the razor.
  Water savings: 60 gallons/month
+ Rinse vegetables in a filled sink instead of letting the water run.
  Water savings: 150 - 250 gallons/month
+ When replacing toilets, install a low-flow model.
  Water savings: 300 - 800 gallons/month
+ Capture tap water. For hot water, catch the flow in a watering can while you wait for the hot water to come down the pipe. Use the water later on houseplants or in your garden. For cold water, keep a water bottle in the refrigerator instead of letting the tap run until cold.
  Water savings: 200 - 500 gallons/month
+ Use the garbage disposal less and the trash can more.
  Water savings: 50 - 150 gallons/month

How Can I Help?
As Utah’s population blossoms, so will the demand for its water. If Utah’s municipal and industrial water demand increase at the same rate as its population growth, the State is headed for trouble. Very simply, there will not be enough water to supply to this population. However, since Utahns generally use more water than they need, we can potentially avoid many of these problems by reducing use to a more efficient level.

Conserving water just makes sense. Not only will you help Utah prepare to meet future growth, but as your water usage goes down, so will your water bill. Also, as you heat less water, your energy bills will decrease. Many of the following suggestions are free or cost very little, but the benefits are widespread. Visit www.slowtheflow.org for more information.
Cross-Control Program Public Awareness

One of the greatest public health risks lies in the possibility of introducing a contaminant into the public water supply. The risk is especially troubling because the water distribution system can provide a conduit for the quick spread of the contaminant to a large population. A cross connection is any physical connection to the City water system that may allow contaminants to come in contact with drinking water. Layton City continually strives to reduce the risk of contamination of our potable water supply. Section 13.06 of the Layton City Municipal Code outlines this effort.

The objective of the cross connection program is to reduce the risk of contamination by evaluating and eliminating potential health or system hazards commonly found in the community. The strategy that Layton City uses is called "containment strategy," which contains each individual service connection at the meter with a backflow valve. Layton City’s program is divided into the following two areas:

1. Residential (service lines smaller than 1¼"):
   These types of service connections are generally considered low hazard and adequate backflow protection is normally provided by a dual check valve installed at the meter. For residential construction newer than November 1991, the backflow device has been installed at the meter by the developer’s contractor. For residential connections older than November 1991, the backflow device shall be installed at the meter by Layton City through an ongoing program.

2. Commercial (service lines larger than 1¼"):
   These types of service connections pose varying degrees of risk to the public water system. The type of backflow assembly required depends on the type of business. A hazard assessment performed by the City can determine the required type of assembly. It is the business owner’s responsibility to purchase the backflow assembly and hire a licensed plumber to install it at the water service entrance. Within ten days of initial installation, the assembly must be tested by a certified backflow technician and a test report must be sent to the City. This test and report must be updated annually.

Finally, if you have an outdoor sprinkler system that runs on secondary water AND has the option to switch to culinary water when needed, you are most likely at risk for cross-contamination into your home. Contact the Public Works Shop at 336-3720 for assistance in determining if your home is at risk with this type of system, or if you have any other questions about hazard assessment, compliance, or acceptable assemblies.

Questions? Suggestions?
If you have any questions about this report or about your water, please contact James “Woody” Woodruff, Layton City Engineer, Kimberly Beck, Water Engineer, or Greg Harrah, Water Supervisor, at the Public Works Engineering Office at 801-336-3700. You may also email kbeck@laytoncity.org.