

# *Annual Drinking Water Quality Report*

## *Saratoga Springs 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. All of our water sources have been determined to be from groundwater sources. We get our water from five different wells.

The Drinking Water Source Protection Plan for Saratoga Springs 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 septic tanks, roads or homes. 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 Matt Allison at 801-766-9793. 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 third Tuesdays of every month at 7:00 PM at the city hall located at 1307 North Commerce Drive.

Saratoga Springs 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 1<sup>st</sup> to December 31<sup>st</sup>, 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'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.

**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.

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

**Waivers (W)**- Because some chemicals are not used or stored in areas around drinking water sources, some water systems have been given waivers that exempt them from having to take certain chemical samples, these waivers are also tied to Drinking Water Source Protection Plans.

| TEST RESULTS  |               |                            |                  |      |  |              |  |
|---|---------------|----------------------------|------------------|------|--|--------------|--|
| Contaminant   | Violation Y/N | Level Detected ND/Low-High | Unit Measurement | MCLG | MCL  | Date Sampled | Likely Source of Contamination   |
| <b>Microbiological Contaminants</b>                                 |               |                            |                  |      |  |              |  |
| Total Coliform Bacteria   | Y             | 3                          | N/A              | 0    | Presence of coliform bacteria in 5% of monthly samples | 2007         | Naturally present in the environment   |
| <b>Inorganic Contaminants</b>                                       |               |                            |                  |      |  |              |  |
| Arsenic   | N             | 90 – 160                   | ppb              | 0    | 10   | 2006         | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes |
| Barium  | N             | 90 – 160                   | ppb              | 2000 | 2000   | 2006         | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits             |
| Copper<br>a. 90% results<br>b. # of sites that exceed the <b>AL</b> | N             | a. ND - 402<br>b.          | ppb              | 1300 | AL=1300  | 2006         | Corrosion of household plumbing systems; erosion of natural deposits                                   |
| Lead<br>a. 90% results<br>b. # of sites that exceed the <b>AL</b>   | N             | a. ND - 24<br>b.           | ppb              | 0    | AL=15000   | 2006         | Corrosion of household plumbing systems, erosion of natural deposits                                   |

|                              |   |          |     |                 |                 |      |   |
|------------------------------|---|----------|-----|-----------------|-----------------|------|---|
| Nitrate (as Nitrogen)        | N | 200 -500 | ppb | 10000           | 10000           | 2006 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits                       |
| Sodium                       | N | 10 -90   | ppm | None set by EPA | None set by EPA | 2006 | Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.                      |
| Sulfate                      | N | 8 – 80   | ppm | 1000*           | 1000*           | 2006 | Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland |
| TDS (Total Dissolved solids) | N | 142- 398 | ppm | 2000            | 2000            | 2006 | Erosion of natural deposits   |

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

We periodically monitor for Nitrate in the water supply to meet all regulatory requirements. In 2007 we failed to take the required samples. Testing for Nitrate is used to ensure that the public is provided with safe drinking water. This violation does not necessarily pose a health risk. We have reviewed why we failed to take the required samples and will take steps to ensure that it will not happen again.

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.

We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

Water samples taken in May 2007 confirmed the presence of total coliform bacteria. Total coliforms are common in the environment and are generally not harmful themselves. The presence of these bacteria is usually a result of a problem with water treatment or the pipes which distribute the water, and indicates that the water may have been contaminated with organisms that can cause disease. Symptoms may include diarrhea, cramps, nausea, and possible jaundice, and any associated headaches and fatigue. When the monthly samples confirmed the presence of total coliform bacteria we took steps to identify and correct the problem. Subsequent monthly sampling has confirmed the absence of total coliforms in the water system.

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.

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.

The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

As a precaution we always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply.

Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

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).

We at Saratoga Springs 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.

Saratoga Springs  
1307 North Commerce Drive, STE 200  
Saratoga Springs, UT 84045

March 31, 2008

Brett Shakespear  
CCR Compliance  
Division of Drinking Water  
P.O. Box 144830  
Salt Lake City, Utah 84114-4830

Dear Mr. Shakespear:

Subject: Consumer Confidence Report for Saratoga Springs #25138

Enclosed is a copy of Saratoga Springs' Consumer Confidence Report. It contains the water quality information for our water system for the calendar year 2007 or the most recent sample data.

We have delivered this report to our customers by mailing it directly to each customer.

If you have any questions, please contact me at 801-766-9793.

Sincerely,

Matt Allison  
Saratoga Springs