

# Providence City

## 2011 Annual water Quality REPORT



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

If you have any questions about this report or concerning your water utility, please contact Randy Eck:  
(435) 753-0313.

### join us

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, 6:00 p.m. at the Providence City Office, 15 South Main Street. Please review the agendas published in the Herald Journal and also posted at the City Office prior to any regularly scheduled council meetings. These routinely list any items of discussion pertaining to the water department. Please attend any of these regularly scheduled council meetings and comment on the subject of discussion.

## What information is inside this report?

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 is obtained from four groundwater sources. Source #1 is taken from the Broad Hollow Spring in Providence Canyon; Source #2 is drawn from Dales Well; Source #3 is drawn from the Alder or West Well; and Source #4 is drawn from Jays Well.

Providence City has a Drinking Water Source Protection Plan that is available for 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 septic tanks, roads, homes etc. 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 plans.

## cross connection

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.

### Improper connection



### Proper connection



Designed By R.W.A.U.

## WHAT IS TESTED FOR AND MONITORED IN MY WATER?

Providence 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, 2011. 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*.

## 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 | ND | N/A | 0 | Presence of coliform bacteria in 5% of monthly samples                                                                | 2011 | Naturally present in the environment |
| Fecal coliform and E.coli | N | ND | N/A | 0 | If a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive | 2011 | Human and animal fecal waste         |

### INORGANIC CONTAMINANTS

|                                                            |   |              |     |                 |                 |      |                                                                                                                   |
|------------------------------------------------------------|---|--------------|-----|-----------------|-----------------|------|-------------------------------------------------------------------------------------------------------------------|
| Arsenic                                                    | N | 1            | ppb | 0               | 10              | 2010 | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes            |
| Barium                                                     | N | 34-180       | ppb | 2000            | 2000            | 2010 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits                        |
| Chromium                                                   | N | 4            | ppb | 100             | 100             | 2010 | Discharge from steel and pulp mills; erosion of natural deposits                                                  |
| Copper<br>a.90% results<br>b.# of sites that exceed the AL | N | a.173<br>b.0 | ppt | 1300000         | AL=1300000      | 2008 | Corrosion of household plumbing systems; erosion of natural deposits                                              |
| Lead<br>a.90% results<br>b.# of sites that exceed the AL   | N | a.9<br>b.0   | ppt | 0               | AL=15000        | 2008 | Corrosion of household plumbing systems, erosion of natural deposits                                              |
| Nickel                                                     | N | 5            | ppb | 10000           | 10000           | 2010 |                                                                                                                   |
| Nitrate (as Nitrogen)                                      | N | 500-3500     | ppb | 10000           | 10000           | 2011 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits                       |
| Selenium                                                   | N | 900-1800     | ppt | 50000           | 50000           | 2010 | Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines                  |
| Sodium                                                     | N | 2-13         | ppm | None set by EPA | None set by EPA | 2010 | Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.                      |
| Sulfate                                                    | N | 9-18         | ppm | 1000            | 1000            | 2010 | Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland |
| TDS (Total Dissolved solids)                               | N | 187-379      | ppm | 2000            | 2000            | 2010 | Erosion of natural deposits                                                                                       |

### Disinfection By-products

|                              |   |   |     |   |    |      |                                           |
|------------------------------|---|---|-----|---|----|------|-------------------------------------------|
| TTHM [Total trihalomethanes] | N | 4 | ppb | 0 | 80 | 2010 | By-product of drinking water disinfection |
|------------------------------|---|---|-----|---|----|------|-------------------------------------------|

### RADIOACTIVE CONTAMINANTS

|            |   |     |       |   |   |      |                             |
|------------|---|-----|-------|---|---|------|-----------------------------|
| Radium 228 | N | 0-1 | pCi/l | 0 | 5 | 2008 | Erosion of natural deposits |
|------------|---|-----|-------|---|---|------|-----------------------------|

## TABLE DEFINITIONS

In the table above, 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:

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.

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 outdated.

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.

## learn more about lead levels

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. Providence City 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>.



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## SLOW THE FLOW

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but you can also save money by reducing your water bill. Here are a few suggestions:

### INDOORS

**Do not let the water run while shaving or brushing teeth.**

**Take shorter showers.**

**Do not use the toilet for trash disposal.**

**Run the dishwasher only when full, and soak dishes needing to be washed by hand.**

**Fix or replace old fixtures or toilets that no longer work properly.**

**Install water-saving devices in faucets & appliances**

### OUTDOORS

**Water the lawn and garden in the early morning or evening.**

**Use mulch around plants and shrubs.**

**Repair leaks in faucets and hoses.**

**Use water-saving nozzles.**

**Use water from a bucket to wash your car, and save the hose for rinsing.**



## Should I Be Worried About Contaminants?

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.

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 from their health care providers about drinking water. 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).

### Our Commitment to You

We at Providence 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.

### Certified Water Operators

Certified Operators L to R:  
Danny Wisner, Tara Bankhead, Rob Stapley, Randy Eck.



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