CITY OF FORT PIERRE
ANNUAL WATER QUALITY REPORT
January 2008 to December 2008

Introduction.

The purpose of this report is to inform water users of the quality of the drinking water. The city is required by the U.S. Environmental Protection Agency (EPA) to test the water frequently for the presence and concentration level of many different substances. The South Dakota Department of Environment and Natural Resources (DENR) review all of our testing data to ensure that 1.) We are providing safe drinking water to our customers, and 2.) We are complying with EPA regulations.

The city wants all readers to fully understand the information contained in this report. If any questions arise, please contact:

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Where does Fort Pierre's water come from?

The city is estimated to serve 2,405 persons and 280 businesses and averaged 430,924 gallons of water per day in calendar year 2008, including municipal usage. The water is supplied from two active water wells along the Missouri River. The two active water wells are sunk approximately 55 feet into an underground aquifer. One well is near the Teton Island commercial development site next to the river while another well is near Shimrose Drive next to the river.

Why do we test our drinking water?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and can pick up substances resulting from the presence of animals or from human activity. Too much of any substance, either naturally occurring or resulting from human activities can be considered a contaminant.

Contaminants that may be present in source water before we treat it include:

Microbial contaminants, such, as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm-water runoff, industrial or domestic wastewater discharges, or runoff from mining or farming activities.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm-water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm-water runoff, and septic systems.

Radioactive contaminants, which are naturally occurring in some of the rocks in this region.

Information provided by the EPA.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 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 (800-426-4791).

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 microbial contaminants can be obtained by calling the Environment Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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. The City of Fort Pierre public water supply system 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*.

Definition of Terms.

The following definitions are provided to assist the reader in understanding the city's water quality test results and the following discussion of the results.

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 required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level (MCL) - the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCL-Gs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - the level of a contaminant in drinking water below which there is no known or expected risk to health. MCL-Gs allow for a margin of safety

Parts per million (ppm) or Milligrams per liter (mg/1) - one part per million corresponds to one minute in two years or a single penny in $10,000.

2008 Annual Water Quality Report Table of Detected Contaminants				
Substance	**Level Detected**	**Ideal Goals (MCLG)**	**Highest Level Allowed (MCL)**	**Likely Source of Substance**
Regulated Contaminants				
Arsenic	4	NA	10	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production wastes
Alpha Emitters	1.8	0	15	Erosion of natural deposits.
Haloacetic Acids	3.14	0	60	By-product of drinking water chlorination.
Copper	2.2 - #Sites>1.3 AL-4	0	AL=1.3	Corrosion of Household Plumbing Systems; Erosion of Natural Deposits; Leaching from wood preservatives
Lead	4 - #Sites>15AL-0	0	AL=15	Corrosion of Household Plumbing Systems; Erosion of Natural Deposits
Flouride	1.37	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Total trihalomethanes	2.06	0	80	By-product of drinking water chlorination.

1. All monthly measurements were in compliance.

2. The table lists all the drinking water contaminant data that were detected and tested during the calendar year 2008. The presence of the contaminants in the water does not necessarily indicate that the water poses a health risk.

3. The state allows us to test for some substances less than once per year because the concentrations of these substances do not change frequently. Some of our data, though representative of the water quality, is more than one year old.

2008 Water Quality Tests Results.

Our water is routinely tested for many different substances. Of those substances, only those seven substances listed in the above table were detected; however the substances were below the Highest Level Allowed by the EPA with the sole exception of one Total Coliform Bacteria test.

The detection of lead and copper is derived from the corrosion of home plumbing fixtures. Copper was detected at a level above the Highest Level Allowed while lead was detected below the Highest Level Allowed. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in Fort Pierre as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

Arsenic, alpha emitters, and fluoride are naturally occurring substances and were below both the Ideal Goal and Highest Level Allowed, which indicates safe levels. Arsenic and fluoride are substances that may be derived from the discharge of certain types of manufacturing or agriculture, but the city's test results were below both the Ideal Goal and Highest Level Allowed, which indicates safe levels. Haloacetic acids and total trihalomenthanes were detected and were below the Highest Level Allowed. These substances are derived from the chlorination of drinking water.

Your Input is Welcomed!

The city encourages all customers to attend and participate in the meetings of the Fort Pierre City Council. The Council meets on the first and third Monday of each month at the Stanley County Courthouse at 7:30 p.m. If any questions arise regarding these meetings, please contact:

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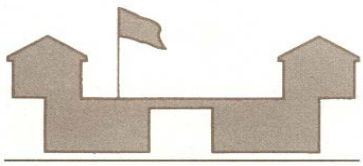
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