



Big Sioux Community Water System, Inc. Annual Drinking Water Quality Report

January 1, 2013 — December 31, 2013

Introduction

The purpose of this report is to inform you of the quality of the drinking water that we provide you. We are required by the U.S. Environmental Protection Agency (EPA) to test our water frequently for the presence and concentrations of more than 90 different chemicals or chemical compounds. The South Dakota Department of Environment and Natural Resources (DENR) reviews 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.

We hope you fully understand the information contained in this report. If you have any questions, you are welcome to attend our Board meetings (held the 3rd Wednesday of the month) or please contact:

Dave Bennett
Big Sioux Community
Water System, Inc.
23343 479th Avenue
Egan, SD
Phone: (605) 997-2098

Where does our water come from?
The source of our drinking water is ground

water from the Big Sioux Aquifer. The Big Sioux Aquifer is a shallow sand and gravel aquifer. We have eight wells located within the Big Sioux River valley in central Moody County, SD. The wells are approximately 40 feet deep. Well-head protection ordinances are in place in Moody County, and efforts are ongoing to protect our raw water quality.

Why do we test our drinking water?

The water we pump from our wells originally comes from the surface, and very slowly seeps down into the aquifer. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals, and 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 include:

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

— *Inorganic chemicals or compounds*, such as salts and metals, which can be naturally occurring or result from urban storm-water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

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

— *Organic chemicals or compounds*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, septic systems and agriculture.

— *Radioactive contaminants*, which can be naturally occurring or be the result of oil and gas production and mining activities.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Summary of Results:

Of the 90+ chemical parameters tested for, the table below represents all that were even detected.

Levels of Antimony, Barium, Chromium, Nickel, Selenium and Alpha emitters were found at levels consistent with our aquifer type. Fluoride levels are consistent with the amount we add to promote healthy teeth. Nitrate levels are consistent with area land-use, and well below the MCL. Lead and Copper levels, a function of plumbing fixtures, are very low due to the chemical stability of the water we produce. 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 the community 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 two minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

OUR DRINKING WATER MEETS OR EXCEEDS FEDERAL AND STATE REQUIREMENTS

2013 WATER QUALITY TEST RESULTS

Detected Inorganic Chemicals

Chemical	Date Sampled	Level Detected	Average Level Detected	Range of Detection	Units	MCLG	MCL	Likely source of Contamination
Alpha emitters	10/29/12	1.6			pCi/l	0	15	Erosion of natural deposits
Antimony	4/30/12	0.5			ppb	6	6	Refineries, electronics
Haloacetic Acids	9/25/12	12.9		10.0 – 12.9	ppb	0	60	By-product of disinfection
Total Trihalomethanes	8/24/09	50		38.3 – 50	ppb	0	80	By-product of disinfection
Nickel	5/9/12	1			ppb	100	100	Metal alloys, batteries
Chromium	4/30/12	0.7			ppb	100	100	Pulp mills, natural deposits
Barium	4/30/12	0.002			ppm	2	2	Erosion of natural deposits
Fluoride	Twice monthly	1.29	1.2	1.06 – 1.29	ppm	4	4	Water additive to promote strong teeth
Nitrate (as Nitrogen)	2/9/13	1.9			ppm	10	10	Fertilizer runoff; septic tank; erosion of natural deposits
Selenium	4/30/12	3.5			ppb	50	50	Erosion of natural deposits

Lead and Copper (Regulated at the Consumers Tap)

Chemical	Date Sampled	Level Detected (90th Percentile)	# of Samples above the AL	Units	MCLG	MCL	Likely source of Contamination
Lead	8/22/12	1	0	ppb	0	AL = 15 ppb	Corrosion of household plumbing systems
Copper	8/22/12	0	0	ppm	0	AL = 1.3 ppm	Corrosion of household plumbing systems

Definition of Terms

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 — 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) — a measure of radioactivity.

Action Level (AL) — the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level — 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 — 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.