

You can contact us by calling
(605)923-1403 or write us at
520 N Ellsworth Rd-#9C
Box Elder SD 57719-2017

City of Box Elder

2007 Drinking Water Report

It's your tap water!

EPA ID: 0046



Water Quality

Last year, the City of Box Elder monitored your drinking water for more than 80 possible contaminants. This brochure is a snapshot of the quality of the water that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies.

Water Source

We serve more than 4500 customers an average of 550,000 gallons of water per day. Our water is groundwater that we produce from local wells. The state has performed an assessment of our source water and they have determined that the relative susceptibility rating for the Box Elder public water supply system is medium.

For more information about your water and information on opportunities to participate in public meetings, call (605)923-1408 and ask for Al Todd.

Additional Information

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.

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 contaminants*, such as salts and metals, which can be naturally-occurring or result from urban stormwater 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 stormwater 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 stormwater runoff, and septic systems.

- *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 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 Box Elder 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>.

Detected Contaminants

The attached table lists all the drinking water contaminants that we detected during the 2007 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 – December 31, 2007. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Violations

The City of Box Elder had one violation in 2007. A list of these violations can be found in the attached table and includes the following:

- 1) Type of violation
- 2) Date of the violation
- 3) Duration of the violation
- 4) Health effects language
- 5) Action taken to address the violation

If you have questions or need more information about these violations, please contact Al Todd with the City of Box Elder at (605)923-1408.

2007 Table of Detected Contaminants For Box Elder (EPA ID 0046)

Terms and abbreviations used in this table:

- * Maximum Contaminant Level Goal(MCLG): 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.
- * Maximum Contaminant Level(MCL): 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.
- * Action Level(AL): the concentration of a contaminant which, when 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. For turbidity, 95% of samples must be less than 0.3 NTU

Units:

- *MFL: million fibers per liter
- *mrem/year: millirems per year(a measure of radiation absorbed by the body)
- *NTU: Nephelometric Turbidity Units
- *pCi/l: picocuries per liter(a measure of radioactivity)
- *ppm: parts per million, or milligrams per liter(mg/l)
- *ppb: parts per billion, or micrograms per liter(ug/l)
- *ppt: parts per trillion, or nanograms per liter
- *ppq: parts per quadrillion, or picograms per liter
- *pspm: positive samples per month

Substance	Highest Level Detected	Range	Date Tested	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Units	Major Source of Contaminant
Alpha emitters	13.4		10/31/05	15	0	pCi/l	Erosion of natural deposits.
Barium	0.064	0.030 - 0.064	12/17/07	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chromium	6	ND - 6	12/17/07	100	100	ppb	Discharge from steel and pulp mills; erosion of natural deposits.
Combined Radium	1.40		10/31/05	5	0	pCi/l	Erosion of natural deposits.
Copper	0.1	#Sites>1.3 AL - 0	08/22/02	AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Fluoride	2.16	0.41 - 5.33	07/31/07	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Lead	2	#Sites>15 AL - 0	08/20/02	AL=15	0	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
Nitrate (as Nitrogen)	0.07		04/06/07	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Selenium	6	ND - 6	12/17/07	50	50	ppb	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Toluene	0.001		01/08/07	1	1	ppm	Discharge from petroleum factories.

DENR supplies this information as a service to the Box Elder public water system. It is the responsibility of the public water system to check this information against their sampling history and the regulations.

2007 Information on Violations For Box Elder (EPA ID 0046)

(Include this information in your report written in a narrative form. Be sure to include the action taken by your system to address the violation.)

Violation Type	Parameter	Date	Duration In Months	Health Effects Language	Action Taken By Your System
Routine Sample Monitoring Violation	Total Coliform Bacteria	08/01/2007	1	Monitoring and reporting violations do not necessarily indicate a health risk. However, since levels of this parameter was not monitored the potential health risk posed by this contaminant may not be known.	<p>Box Elder is required to take 4 drinking water samples per month to be analyzed for total coliform bacteria. Because of an administrative error, Box Elder took only 3 samples during the month of August; however, all 3 samples taken showed no trace of bacteria present. Box Elder took the correct number of samples during the current month and all months previous, and has never had an official positive bacteria sample.</p> <p>The State of South Dakota and the US Environmental Protection Agency (EPA) set drinking water standards and have determined that the presence of total coliforms is a possible health concern. Total coliforms are common in the environment and are generally not harmful in themselves. Coliforms are used as an indicator that other, potentially harmful, bacteria MAY be present.</p> <p>You as a consumer do not need to take any action because of this violation.</p> <p>Box Elder has reevaluated its drinking water sampling</p>

Violation Type

Parameter

Date

**Duration In
Months**

Health Effects Language

Action Taken By Your System

procedures and has initiated the following actions to further ensure the water quality delivered to its customers:

1. The State requires 12 sample sites distributed throughout the system; Box Elder will utilize 16 sample sites for better representative coverage.
2. The State requires 4 samples per month; effective immediately, Box Elder will take 5 samples per month.

Box Elder has taken a very progressive approach to its water quality as well as its water quantity and would welcome any comments or concerns as we move forward with water upgrades to the supply and distribution system. For additional information contact:

Al Todd – Public Works
Director

923-1408