

**City of Sturgeon**  
**2007 Annual Water Quality Report**  
**(Consumer Confidence Report)**

---



*2007 ~ Annual Drinking Water Report*  
*PWS ID # 3010771*

This report is intended to provide you with important information about your drinking water and the efforts made to provide safe drinking water.

**The City of Sturgeon monitors for contaminants in your water according to Federal and State laws and is pleased to report that there were no violations according to their requirements.**

**This report is for the period of January 1, 2007 through December 31, 2007.**

**If you have questions regarding this report, please contact Gary Lear at: (573) 687-3321.**

If you want to learn more about this report, you may attend a city council meeting, which is regularly scheduled for the fourth Monday of each month beginning at 7:00 p.m. at the Sturgeon City Offices.

**WHAT IS THE SOURCE OF MY WATER?**

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and groundwater wells. AS water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and in some cases radioactive material and can pickup substances resulting from the presence of animals or from human activity

**The City of Sturgeon purchases the water from Boone County PWSD #10 (I.D. # MO 3024059) with wells located at the following locations: (573) 682-5314**

- Well #1 . . . . . T.51N, R11W. Sec. 29 1375' in depth
- Well #2 . . . . . T.51N, R11W. Sec. 29 1380' in depth
- Well #3 . . . . . T.51N, R11W. Sec. 08 1400' in depth
- Well #4 . . . . . T.51N, R11W. Sec. 20 1500' in depth

## ***WHY ARE THERE CONTAMINANTS IN MY WATER?***

***In the following tables, you will find many terms and abbreviations that you may not be familiar with. To better help you understand these terms, we have provided the following definitions:***

**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 \$10,000.00.

**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 \$10,000,000.00.

**Picocuries per liter (pCi/L)** – Picocuries per liter is a measure of the radioactivity in water.  
**Action Level** – The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

**Maximum Contaminant Level** – The “Maximum Allowed” (MCL) is the highest level of contaminant that is allowed in drinking water. MCL’s are set as close to the MCLG’s as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal** – The “Goal (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG’s allow for a margin of safety.

**TT** - Treatment Technique

**NTU: Nephelometric Turbidity Unity** – Used to measure cloudiness in drinking water.

**MFL or Million Fibers Per Liter** – Used to measure asbestos concentration

**ND** – Not detectable

**Missouri Department of Natural Resources** – State of Missouri regulatory agency that oversees the monitoring regulation of public drinking water systems.

**The state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Records marked with \*, though representative, are more than one year old.**

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 (800) 426-4791.

**Contaminants that may be present in source water include:**

1. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
2. Inorganic contaminants, 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.
3. Pesticides and herbicides, which may come from a variety of sources such as agricultural, urban storm water runoff, and residential uses.
4. 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.
5. 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, the Missouri Department of Natural Resources prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Missouri Department of Health regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

MCL’s 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 for a lifetime at the MCL level to have a one-in-a-million chance of having the described health effect.

## ***IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OUR OPERATIONS***

The Missouri Department of Natural Resources regulates our water system and requires us to test our water on a regular basis to ensure its safety. Our system has been assigned the identification number **MO 3010771** for the purposes of tracking our test results. Last year, we tested for a variety of contaminants. The detectable results of these tests are on the pages of this report. Any violations of state requirements or standards will be further explained in this report.

In the City’s continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvement in your water system. The costs of this improvement may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. Thank you for allowing us to continue to provide your family with clean quality water this year. Thank you for your support and understanding.

**DO I NEED TO TAKE SPECIAL PRECAUTIONS?**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer who are 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 their 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 at (800) 426-4791.

The elected officials and employees of the City of Sturgeon work to provide top quality water to every tap. We ask that all of our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Please call our office at (573) 687-3321 if you have questions.

*Sincerely yours,*  
  
*Danny R. Joiner*  
*Mayor*

- City of Sturgeon ~ (573) 687-3321
- PWSD # 10 ~ (573) 682- 5314
- Safe Drinking Water Hotline ~ (800) 426-4791

PWSD # 10 ~ Contaminants

Regulated Contaminants	Collection Date	Water System	Highest Value	Range	Unit	MCL	MCLG	Typical Sources
BARIUM	2/14/2006	BOONE CO PWSD #10	0.0205	0.00893 - 0.0331	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	2/14/2006	BOONE CO PWSD #10	1.4725	1.3 - 1.74	ppm	4	4	Natural Deposits; Water additive which promotes strong teeth.

Secondary Contaminants	Collection Date	Water System	Highest Value	Range	Unit	MCL	MCLG	Typical Sources
ALKALINITY, TOTAL	2/14/2006	BOONE CO PWSD #10	325	305-325	MG/L			
CALCIUM	2/14/2006	BOONE CO PWSD #10	71	63.1 - 71	MG/L		4	
CHLORIDE	2/14/2006	BOONE CO PWSD #10	60.4	35.6 - 60.4	MG/L	250		
HARDNESS CARONATE	2/14/2006	BOONE CO PWSD #10	318	282-318	MG/L			
IRON	2/14/2006	BOONE CO PWSD #10	0.22	0.02 - 0.22	MG/L	0.3		
MAGNESIUM	2/14/2006	BOONE CO PWSD #10	34.1	0.002030-00352	MG/L			
MANGEANESE	2/14/2006	BOONE CO PWSD #10	0.00352	0.00203 - 0.00352	MG/L	0.05		
PH	2/14/2006	BOONE CO PWSD #10	7.5	7.39 - 7.5	MG/L	8.5		
POTASSIUM	2/14/2006	BOONE CO PWSD #10	11.7	8.69 - 11.7	PH			

**PWSD #10 Contaminants**

Secondary Contaminants	Collection Date	Water System	Highest Value	Range	Unit	MCL	MCLG	Typical Sources
SODIUM	2/14/2006	BOONE CO PWSD #10	89.6	58.5 - 89.6	MG/L		20	
SOLIDS TOTAL DISSOLVED (TDS)	2/14/2006	BOONE CO PWSD #10	522	429 - 522	MG/L	500		
SULFATE	2/14/2006	BOONE CO PWSD #10	79.1	43.8 - 79.1	MG/L	250		
ZINC	2/14/2006	BOONE CO PWSD #10	0.00188	0.0012 - 0.00188	MG/L	5		

During the 2007 calendar year, the water system(s) that we purchase water from had the below noted violation(s) of drinking water regulations.

Water System	Type	Category	Analyte	Compliance Period
BOONE CO PWSD #10	CCR ADEQUACY/AVAILABILITY/CONTENT	Failure to Complete Report/Record Keeping	CONSUMER CONFIDENCE REPORTS RULE	7/1/2006 - 7/18/2006

Radionuclide	Units	MCL	MCLG	Level Found	Range of Detection	Violation	Sample Year	Source
Gross Alpha Particle Activity, total	pCi/L	15	0	5.6500	3-7.5	NO	2007	Erosion of Natural Deposits

Combined Radionulides	Units	MCL	MCLG	Level Found	Violation	Sample Year	Source
Combined Radium Level RA 226 and RA 228	pCi/L	5	0	0.9500	NO	2007	Erosion of Natural Deposits

**Copper**

COLLECTION PERIOD	UNITS	ACTION LEVEL	90 <sup>TH</sup> PERCENTILE	SITES EXCEEDING AL
2005-2007	ppm	AL = 1.3	0.177	0

**SOURCES:** Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

**Lead**

COLLECTION PERIOD	UNITS	ACTION LEVEL	90 <sup>TH</sup> PERCENTILE	SITES EXCEEDING AL
2005-2007	ppb	AL = 15	6.7	0

**SOURCES:** Corrosion of household plumbing systems; erosion of natural deposits

**Coliform**

# POSITIVE SAMPLES	% POSITIVE SAMPLES	MONTH	VIOLATION
0	0	N/A	NO

The MCL for total Coliform is determined by the number of samples taken per month. Systems that collect **less than 40** samples per month are in violation **IF** more than **ONE** sample tests positive. Systems that collect **more than 40** samples per month are in violation **if 5% or more** of the samples test positive.

**Fecal Coliform**

# POSITIVE SAMPLES	% POSITIVE SAMPLES	MONTH	VIOLATION
0	0	N/A	NO

The MCL for Fecal Coliform is where a routine sample and a repeat sample are total coliform positive and one is also fecal coliform or E. Coli positive.

**SOURCE:** Naturally present in the environment

**Unregulated Contaminants**

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Information on all the contaminants that were monitored for, whether regulated or unregulated, can be obtained from this water system or The Department of Natural Resources.

**Unregulated**

INORGANIC	UNITS	LEVEL FOUND	RANGE OF DETECTION
Nickel Dissolved	Ppb	4.213	3.76 – 4.58

**Violations and Health Effects Information**

There were no MLC, Monitoring, or treatment technique violations for this report.