

# City of Sturgeon

*2010 ~ Annual Drinking Water Report  
PWS ID # 3010771*

## **City of Sturgeon 2010 Annual Water Quality Report (Consumer Confidence Report)**

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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, 2009 through December 31, 2010.

**If you have questions regarding this report, please contact John Gingerich 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 pick up 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. 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.

**How might I become actively involved?**

If you would like to observe the decision-making process that affect drinking water quality or if you have any further questions about your drinking water report, please call us at 573-682-5314 (PSW 10) to inquire about scheduled meetings or contact persons.

*Sincerely yours,*

*Gene D Kelly  
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	2/25/09	BOONE CO PWSD #10	0.0138	0.00909 0.0239	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
CHROMIUM	2/25/09	BOONE CO PWSD #10	3.9925	3.82- 4.09	ppb	100	100	Natural Deposits; Water additive which promotes strong teeth.
FLUORIDE	2/25/09	BOONE CO PWSD #10	1.5075	1.35 - 1.6	ppm	4	4	

Secondary Contaminants	Collection Date	Water System	Highest Value	Range	Unit	MCL	MCLG	Typical Sources
ALKALINITY CACO3 STABILITY	2/25/09	BOONE CO PWSD #10	341.2500	336-345	MG/L			
ALKALINITY, TOTAL	2/14/06	BOONE CO PWSD #10	315.5000	305-325	MGL			
CALCIUM	2/25/09	BOONE CO PWSD #10	60.4750	59.1 - 62.7	MG/L			
CHLORIDE	2/25/09	BOONE CO PWSD #10	50.6250	41.3 – 56.1	MG/L	250		
HARDNESS CARONATE	2/25/09	BOONE CO PWSD #10	266.0000	259 - 276	MG/L			
IRON	2/25/09	BOONE CO PWSD #10	27.3750	19.9 - 46.6	MG/L	0.3		
MAGNESIUM	2/25/09	BOONE CO PWSD #10	28.0000	27-29.1	MG/L			
MANGEANESE	2/25/09	BOONE CO PWSD #10	1.880	1.52- 2.09	MG/L	0.05		
PH	2/25/09	BOONE CO PWSD #10	7.3650	7.31- 7.45	PH	8.5		
POTASSIUM	2/25/09	VV	9.4450	8.64- 10.1	MGL			

Regulated Contaminants	RESULT	Water System	Highest Value	Range	Unit	MCL	MCLG	Sources of Nitrate
NITRATE (ASN)	<0.05	BOONE CO PWSD #10			Mg/L	10		Run off from fertilizer, leaching from septic tanks, erosion of natural deposits.

#### PWSD #10 Contaminants

Secondary Contaminants	Collection Date	Water System	Highest Value	Range	Unit	MCL	MCLG	Typical Sources
SODIUM	2/25/09	BOONE CO PWSD #10	63.3	48.9-63.3	MG/L		20	
SULFATE	2/25/09	BOONE CO PWSD #10	54.9500	46.4-62.3	MG/L	250		
SOLIDS TOTAL DISSOLVED (TDS)	2./25/09	BOONE CO PWSD #10	475.0000	438-499	MG/L	500		
ZINC	2/25/09	BOONE CO PWSD #10	57.1000	34.9-70.5	MG/L	5		

During the 2009 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	NO VIOLATIONS OCCURRED IN CALENDAR YEAR OF 2009			

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	Number of Samples	90 <sup>th</sup> Percentile	Sites Exceeding AL
2008-2010	Hg/L	20	121	0

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

#### Lead

Collection Period	Units	Number of Samples	90 <sup>th</sup> Percentile	Sites Exceeding AL
2008-2010	Hg/L	20	5.04	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.