

City of Sturgeon
2003 Annual Water Quality Report
(Consumer Confidence Report)

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, 2003 through December 31, 2003.

If you have questions regarding this report, please contact Dean Connolly or 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 PWS #10 (I.D. # MO 3024059) with wells located at the following locations:

- 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

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.*

WHY ARE THERE CONTAMINANTS IN MY WATER?

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,

Gene Kelly
Mayor

PWSD # 10 ~ Optional Contaminants

Monitoring is not required for optional contaminants

	UNITS	LEVEL FOUND	RANGE OF DETECTIONS	SAMPLE YEAR
Radium, Combined (226,228)		2.4000	2.4	2002
INORGANIC	Units	Level Found	Range of Detections	Sample Year
Alkalinity, CaCO3 Stability	ppm	366.2500	350-388	2000
Alkalinity, Total	ppm	323.6667	318-327	2003
Calcium	ppm	66.2333	64.9-67.9	2003
Chloride	ppm	41.5000	33.8 – 46.6	2003
Hardness, Carbonate	ppm	287.6667	281 – 296	2003
Iron	ppb	156.8333	10.8 – 420	2003
Iron, Dissolved	ppb	136.1750	74.6 – 250	2003
Magnesium	ppm	29.7000	28.9 – 30.6	2003
Manganese	ppb	3.3000	2.23 – 5.21	2003
PH		7.5267	7.43 – 7.58	2003
Potassium	ppb	10.2500	9.25 – 11.1	2003
Sodium	ppm	62.7667	59 - 66.9	2003
Solids, Total Dissolved (TDS)	ppm	443.0000	430 - 465	2003
Sulfate	ppm	48.4333	41.3 – 53.5	2003

PWSD # 10 ~ Regulated Contaminants

Ground Water - Well

INORGANIC	UNITS	MCL	MCLG	LEVEL FOUND	RANGE OF DETECTION	VIOLATION	SAMPLE YEAR
Barium	ppm	2	2	0.0225	0.0112 – 0.033	NO	2003
Fluoride	ppm	4	4	1.2933	1.18 – 1.44	NO	2003

SOURCES:

Barium: Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits

Fluoride: Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

RADIONUCLIDE	UNITS	MCL	MCLG	LEVEL FOUND	RANGE OF DETECTION	VIOLATION	SAMPLE YEAR
Gross Alpha Particle Activity, total	pCi/L	15	0	5.2000	5.2	NO	2003

SOURCE: Erosion of natural deposits

Combined Radium Level RA226 and RA228

UNITS	COMBINED RADIUM DETECTED	MCL	MCLG
PCI/L	2.4000	5	0

Copper

COLLECTION PERIOD	UNITS	ACTION LEVEL	90TH PERCENTILE	SITES EXCEEDING AL
1/1/2001 – 12/31/2001	ppm	AL = 1.3	0.148	0

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

Lead

COLLECTION PERIOD	UNITS	ACTION LEVEL	90TH PERCENTILE	SITES EXCEEDING AL
1/1/2001 – 12/31/2001	ppm	AL = 15	5.7	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