



# 2010 Consumer Confidence Report

City of Gladstone, Department of Public Works

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

### *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 Gladstone's water comes from six ground water wells.

### *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 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 1-800-426-4791.

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

- A. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- B. 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.
- C. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- D. 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.
- E. Radioactive contaminants, which can be naturally-occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Department of Natural Resources prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Department of Health regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

### ***Is Gladstone's water system meeting the standards 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 it's safety. Our system has been assigned the identification number MO1010307 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 following pages of this report. Any violations of state requirements or standards will be further explained later in this report.

### ***How might I become actively involved?***

If you would like to observe the decision-making processes that affect drinking water quality or if you have any further questions about your drinking water report, please call us at 816-454-2770 to inquire about scheduled meetings or contact persons.

### ***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 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 are available from the Safe Drinking Water Hotline at 1-800-426-4791.

### ***Definitions:***

**MCLG:** Maximum Contaminant Level Goal, or 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.

**MCL:** Maximum Contaminant Level, or 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.

**AL:** Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements that a water system must follow.

**TT:** Treatment Technique: a required process intended to reduce the level of a contaminant in drinking water.

**90th PERCENTILE:** For Lead and Copper testing, 10% of test results are above this level and 90% are below this level.

**LEVEL FOUND:** The average of all test results for a particular contaminant.

**RANGE OF DETECTION:** Shows the lowest and highest levels found during a testing period.

### ***Abbreviations***

**PPB:** parts per billion or micrograms per liter

**PPM:** parts per million or milligrams per liter

**N/A:** not applicable

**ND:** not detectable at testing limits

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.

**Unregulated Contaminant** 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 we monitored for, whether regulated or unregulated, can be obtained from this water system or the Department of Natural Resources.

**Radon** is a naturally occurring gas present in soil and most ground waters in Missouri. Radon in home indoor air comes mainly from infiltration from soil in contact with foundations, slabs, and basement walls. EPA recommends that indoor air levels not exceed 4 pCi/L (picocuries per liter). EPA uses a conversion factor of 10,000 to 1 to determine indoor air contribution from water. Radon poses a risk for lung cancer (estimated at 160 deaths/year nationally from drinking water, 85% of these in smokers), and stomach cancer (5 deaths annually). However, experts are not sure exactly what the cancer risk is from a given level of radon in drinking water. If you are concerned about radon in your home, tests are available to determine the exact levels. Call the Clay County Health Department at 816-781-1600 for details.

**In addition to the test results provided in this report, the City regularly tests for a variety of other compounds to make sure our drinking water is safe and of high quality. If you are interested in a more detailed report, or have questions concerning the information in this report, please contact the Public Works Department at 816-436-5442.**

## REGULATED CONTAMINANTS WATER QUALITY REPORT

<u>Inorganic</u>	<i>Units</i>	<i>MCL</i>	<i>MCLG</i>	<i>Level Found</i>	<i>Range of Detections</i>	<i>Violation</i>	<i>Sources</i>
Barium, Dissolved	ppm	2	2	0.0574	0.0574	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	ppm	4	4	0.26	0.26	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
<u>Volatile Organic</u>	<i>Units</i>	<i>MCL</i>	<i>MCLG</i>	<i>Level Found</i>	<i>Range of Detections</i>	<i>Violation</i>	<i>Sources</i>
HAA5	ppb	60	0	15	11.3 - 18.2	No	By-product of drinking water chlorination
TTHM's	ppb	80	0	70	59.6 - 75.4	No	By-product of drinking water chlorination
<u>Lead &amp; Copper*</u>	<i>Units</i>	<i>Date</i>	<i>Action Level</i>	<i>90th Percentile</i>	<i>Sites</i>	<i>Sources</i>	
Copper	ppm	2008-10	AL=1.3	0.0404	0	Corrosion of household plumbing systems	
Lead	ppm	2008-10	AL=15	5.7	0	Corrosion of household plumbing systems	

Coliform - In the month of January, 2.50% of samples returned as positive. MCL: Systems that collect 40 or more samples per month - no more than 5% positive monthly samples.

	<i>Collection Date</i>	<i>Highest Value</i>	<i>Range</i>	<i>Unit</i>	<i>Sources</i>
Gross Alpha Particle Activity	3/14/2007	1.2	1.2	pCi/l	Erosion of natural deposits

## Violations and Health Effects Information

**There were no MCL, monitoring or treatment violations for this report.**

## OPTIONAL MONITORING (NOT REQUIRED BY EPA)

	<i>Units</i>	<i>Highest</i>	<i>Range</i>	<i>MCL</i>	<i>MCLG</i>
Alkalinity, CaCO3 stability	MG/L	94.1	94.1		
Calcium	MG/L	21.7	21.7		
Chloride	MG/L	28.9	28.9	250	
Hardness as CaCO3	MG/L	102	102		
Iron	MG/L	.0303	.0303	.3	
Magnesium	MG/L	11.5	11.5		
Manganese	MG/L	.0022	.0022	.05	
pH	PH	7.46	7.46	8.5	
Potassium	MG/L	5.6	5.6		
Sodium	MG/L	41.3	41.3		20
Sulfate	MG/L	121	121	250	
TDS	MG/L	279	279	500	

# WATER SYSTEM IMPROVEMENTS

Improvements to the Gladstone drinking water system continued in 2010. The improvements were not only to the Water Treatment Plant, but also to the water main distribution system. The improvements protect the City's investment in the drinking water system, improve production efficiency, and improve the quality of drinking water delivered to the residents. Improvements to the Water Treatment Plant include:

- ✓ Inspected all water storage facilities
- ✓ Performed improvements to the raw water line between the well field and the Water Plant
- ✓ Performed flow testing on six water source wells
- ✓ Treated one water source well
- ✓ Rebuilt east and west lime machines

Maintaining the production and water main distribution system continues to remain a high priority of the City Council.

## Water Conservation Tips

Did you know that the average U.S. household uses approximately 350 gallons of water per day? Luckily, there are many low-cost or no-cost ways to conserve water. Water your lawn at the least sunny times of the day. Fix toilet and faucet leaks. Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath. Turn the faucet off while brushing your teeth and shaving; 3-5 gallons go down the drain per minute. Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!

## Water Quality Data (Table on page 3)

The water quality data table lists all of the drinking water contaminants that we detected during testing. The presence of 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 in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

**¡Atención!**  
Este informe contiene información muy importante. Tradúscalo o pregúntele a alguien que lo entienda bien.

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