

City of Maryville  
**2007 WATER QUALITY REPORT**

This report contains important information regarding the water quality in our water system. The sources of our water are the 102 River, Mazingo Lake, and the Maryville Reservoir.

**SOURCE WATER ASSESSMENT INFORMATION**

The Department of Natural Resources conducted an assessment of our source water to determine its susceptibility to contamination. All surface water sources are vulnerable to land use activities within their watershed. This is why all surface water in Missouri must be treated in dual treatment trains with barriers in place for potential microbiological and chemical contamination. The assessment is a delineation of our watershed(s). If you want to know more about the assessment then please call 660-562-3713.

**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 it's safety. Our system has been assigned the identification number MO1010508 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.

Our water quality testing shows the following results:

CONTAMINANT	MCLG	MCL	DETECTED LEVEL	DATE SAMPLED	RANGE OF DETECTION	VIOLATION	SOURCE
Arsenic (ppb)	N/A	50	1.4	2007	1.4	NO	Erosion of natural deposits; runoff from orchards; runoff from glass & electronics production wastes
Barium (ppm)	2	2	0.0697	2007	0.0697	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Carbon, Total Organic [TOC] (ppm)			7.12	2007	3.9-7.12	NO	Naturally present in the environment
Chlorite (ppb)	800	1000	.067	2007	0.25-0.67	NO	By-product of drinking water chlorination
Fluoride (ppm)	4	4	1.1	2007	0.65-1.1	NO	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate + Nitrite (As N) [ppm]	10	10	0.25	2007	0.25	NO	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
Atrazine (ppb)	3	3	2.39	2007	0.99-2.39	NO	Runoff from herbicide used on row crops
Total Haloacetic Acids (HAA5) [ppb]	0	60	31.88425	2007	16.6-57.2	NO	By-product of drinking water chlorination
Total Trihalomethanes (TTHM) [ppb]	N/A	80	64.46219	2007	13.3-94.2	NO	By-product of drinking water chlorination

**TURBIDITY**

Turbidity is a measure of cloudiness of water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system.

Percentage of samples in compliance with Std.	Month Occurred	Violation	Highest Single Measurement of the Year	Month Occurred	Sources
100	N/A	NO	0.094	January	Soil runoff

Lead and Copper	Date	90 <sup>TH</sup> Percentile	Range	Unit	AL	Sites Over AL	Typical Source
COPPER	2005 - 2007	0.0496	0.0118 - 0.0554	ppm	1.3	0	Corrosion of household plumbing systems
LEAD	2005 - 2007	8.5	1.63 - 19.7	ppb	15	1	Corrosion of household plumbing systems

Microbiological	Result	MCL	MCLG	Typical Source
COLIFORM, TOTAL (TCR)	In the month of August, 1 sample(s) returned as positive	MCL: Systems that Collect Less Than 40 Samples per Month - No more than 1 positive monthly sample	0	Naturally present in the environment

Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

**DEFINITIONS & ABBREVIATIONS**

- ppb -- parts per billion.
- ppm -- parts per million.
- pCi/L – picocuries per liter
- 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.
- 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.

- N/A – Not applicable
- ND -- Not detected

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- 90th percentile: For lead and Copper testing. 10% of test results are above this level and 90% are below this level.
- Level Found: is the average of all test results for a particular contaminant.
- Range of Detections: Shows the lowest and highest levels found during a testing period, if only one sample was taken, then this number equals the Level Found.

**GENERAL INFORMATION**

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 posed a health risk. More information about contaminants or potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline (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 be the result of oil and gas production and mining activities.

In order to ensure tap water is safe to drink, the Department of Natural Resources prescribes regulations which 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.

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 (800-426-4791).

**VIOLATIONS AND HEALTH EFFECTS INFORMATION**

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

Type	Category	Analyte	Compliance Period
No Violations Occurred in the Calendar Year of 2007			

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Infants and children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4761). There are no additional required health effects violation notices.

**CONTACT INFORMATION**

Decisions regarding the water system are made at the City Council meetings held on the second and fourth Monday of the month at 7:00 p.m. at City Hall and are open to the public.

For questions regarding this information, please contact the water plant at 660/562-3713 during the hours of 9:00 a.m. - 4:00 p.m. or e-mail questions to [tsnyder@peopleservice.com](mailto:tsnyder@peopleservice.com).

Este informe contiene informacion muy importante sobre su agua bebar. Traduzcalo o hable con alguien que lo entienda bien.

# **PUBLIC NOTICE**

## **IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

Este informe contiene informacion muy importante sobre su agua bebar.  
Traduzcalo o hable con alguien que lo entienda bien.

### **MARYVILLE**

#### **(INCLUDING NODAWAY COUNTY PWSD #1)**

The City of Maryville is required to routinely test their drinking water for a number of possible contaminants. During the 1<sup>st</sup> Quarter (January 1<sup>st</sup> to March 31<sup>st</sup>) of 2008, the City of Maryville failed to meet the total organic carbon removal requirement. The City of Maryville sells water to other public water systems including: NODAWAY COUNTY Public Water Supply District (PWSD) #1. Although this is not an emergency, as customers receiving water from the City of Maryville, you have a right to know what happened, what you should do, and what is being done to correct this situation.

The water system must operate to achieve the removal requirements for disinfection by-product precursors. Removal requirements are based on a calculated ratio of the percent removal of total organic carbon (TOC). If the calculated ration is below 1.00, the water system is not in compliance with the TOC percent removal requirements. **At the end of the 1<sup>st</sup> Quarter of 2008, the City of Maryville did not meet the required calculated removal ratio of TOC by having a running annual average of 0.99.** Total organic carbon has no health effects. However, total organic carbon provides a medium for the formation of disinfection by-products. The by-products include trihalomethanes and haloacetic acids. Drinking water in excess of the maximum contaminate level may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

Disinfection by-products, such as trihalomethanes (TTHM0 and haloacetic acids (HAA5), are formed when disinfectants such as chlorine react with naturally occurring organic matter, called TOC, in surface water systems. TTHM and HAA5 are by-products of the disinfection process that uses chlorine, however disinfection of drinking water is important to kill and prevent potentially harmful bacteria, viruses, and parasites. Measures can be taken by the City of Maryville to reduce the level of these disinfection by-products and their precursors.

#### **What should I do as a customer?**

1. This is not an emergency. There is no immediate risk from water with total organic carbon removal ratio below 1.00. However, if you have specific health concerns, consult with your doctor regarding this notice.
2. You may call the U.S. Environmental Protection Agency (EPA) Drinking Water Hotline at 1-800-426-4791, which is available to answer questions on disinfection by-products. The hotline operates 9:00 a.m. to 3:00 p.m. Central Time, Monday through Friday.

#### **What happened? What is being done?**

The lake water chemistry has changed making it more difficult to remove total organic carbon (TOC) during the treatment process. We are reviewing the treatment process and adjusting our chemicals to improve the removal of TOC. We have also purchased additional testing equipment to better monitor the TOC levels throughout the treatment process.

For more information, please contact water system staff indicated below:

**Jim Stier at (660) 562-3713 or 3613 East First Street, Maryville, MO 64468.**

Additionally, you may contact the Missouri Department of Natural Resources' Kansas City Regional Office at (816) 622-7000 or Public Water Program at (573) 526-6925.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by **The City of Maryville.**

State Public Water System ID#: **MO 1010508**

**Date of Notification: June 4, 2008.**

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