

City of Maryville

2009 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 or wish to participate on a watershed protection team to protect this vulnerable resource, 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	10	1.62	2009	1.62	NO	Erosion of natural deposits; runoff from orchards; runoff from glass & electronics production wastes
Barium (ppm)	2	2	0.0806	2009	0.0806	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Carbon, Total Organic [TOC] (ppm)			4.9050	2009	3.57-6.26	YES	Naturally present in the environment
Chlorite (ppm)	800	1000	0.4199	2009	nd-0.72	NO	By-product of drinking water chlorination
Fluoride (ppm)	4	4	0.8538	2009	0.77-1.01	NO	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate + Nitrite (As N) [ppm]	10	10	0.06	2009	0.06	NO	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
Nitrite (As N)	1	1	0.16	2008	0.16	NO	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
Atrazine (ppb)	3	3	0.3640	2009	Nd-1.24	NO	Runoff from herbicide used on row crops
Simazine (ppb)	4	4	0.1120	2009	Nd-0.56	NO	Herbicide runoff
Total Haloacetic Acids (HAA5) [ppb]	0	60	65.8786	2009	36.1-120	YES	By-product of drinking water chlorination
Total Trihalomethanes (TTHM) [ppb]	N/A	80	65.9964	2009	21.6-121	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.	Required percentage	Violation	Highest Single Measurement of the Year	Month Occurred	Sources
97	95	NO	0.70	July	Soil runoff

Lead and Copper	Date	90 TH Percentile	Range	Unit	AL	Sites Over AL	Typical Source
COPPER	2008 - 2010	0.0965	0.0384 - 0.213	ppm	1.3	0	Corrosion of household plumbing systems
LEAD	2008 - 2010	8.18	1.24 - 14.4	ppb	15	0	Corrosion of household plumbing systems

Microbiological	Result	MCL	MCLG	Typical Source
COLIFORM, TOTAL (TCR)	1 sample(s) returned as positive, in August	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.
- 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 2009 calendar year, we had the below noted violation(s) of drinking water regulations.

Type	Category	Analyte	Compliance Period
Treatment Technique	Disinfection By-Products	Organic Carbon, Total (TOC)	1 st , 2 nd quarters 2009
Maximum Contaminant Level	Disinfection By-Products	Haloacetic Acids (HAA5)	3 rd , 4 th quarters 2009

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Background

Like all water systems, the Maryville public water system (PWSID # MO1010508, Nodaway Co.) is required to maintain adequate water treatment and test its drinking water system for a number of possible contaminants. The Maryville public water system is also the sole supplier of to Nodaway Co. PWSD #1. Due to problems at its surface water treatment plant, the city has had a number of violations of drinking water standards.

What violations have occurred?

By the end of the 4th quarter 2009, our public water system was still in exceedence of the maximum contaminant level (MCL) for a group of disinfection by-products called haloacetic acids (HAA5). The above table lists the violations for the 2009 calendar year. The city did have violations for total organic carbon (TOC) for the first half of 2009, but was not in violation for the remainder of the year.

April 18, 2010

What were the levels found and the health effects for this type of violation?

Haloacetic Acids. The maximum contaminant level (MCL) for HAAs is 60 parts per billion (ppb) and is based on the running annual average of quarterly samples. Results for the Maryville public water system showed a running annual average of 70 ppb at the end of the 4th quarter 2009. Since this is greater than the MCL, another violation has occurred. Individual sample results can vary widely depending on the sample site and time of year. Individual sample results from the 1st through 4th quarters 2009 ranged from a minimum of 38 ppb to a maximum of 120 ppb. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

What should I do as a customer?

1. This is not an emergency. There is no immediate health risk associated with a MCL violation for HAA5. It is a non-acute violation meaning it takes several years before any health effects arise. However, if you have specific concerns, consult with your doctor regarding this violation.
2. Call the EPA drinking water hotline at 1-800-426-4791. The hotline operates 9:00 a.m. to 3:00 p.m. Central Time, Monday through Friday.

What happened? What is being done?

The City of Maryville has made the necessary chemical adjustments at the treatment plant, but the HAA5s are forming in the distribution system. The City of Maryville is currently researching switching to chloramines, a different type of disinfectant, to prevent this from happening in the future.

Attention customers of Nodaway Co. PWSD #1 (MO1024428)

As a secondary water system, the water district is not currently regulated for disinfection by-products, so is not in violation of these standards. From 2006-2008, the district conducted voluntary monitoring. Levels of HAA5 ranged from a minimum of less than 8 ppb to a maximum of 127 ppb. Regulations of disinfection by-products at secondary systems begins in 2012.

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

Steve Guthrie at (660) 562-3713 or 3613 East First Street, Maryville, MO 64468 or email at sguthrie@peopleservice.com.

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: 4-18-10

Lead Information:

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 or Steve Guthrie at 712/242-5217 during the hours of 9:00 a.m. - 4:00 p.m. or e-mail questions to sguthrie@peopleservice.com.

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

April 18, 2010

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