

# **2008 Report on Drinking Water Quality for Maysville Utility Commission - Maysville, Kentucky**

## **THIS REPORT CONTAINS INFORMATION ABOUT YOUR DRINKING WATER**

### **Why Am I Receiving This Report ?**

This report discusses the quality of the water delivered to your tap by the Maysville Utility Commission. We strive to produce the best quality of water possible. This means we want you to always have water that:

- Has a clean taste
- Is clear and crisp in appearance
- Never has an unpleasant smell
- Is safe and healthful to drink

### **Where Does Your Water Come From**

We get our water from the Ohio River, a surface water source that drains a large area in several states of the east central U.S. The land in the drainage basin is a mix of undeveloped, agricultural, industrial, urban, and commercial properties. An assessment of the susceptibility to contamination has been completed. A summary of this assessment shows that activities and land uses upstream of the Maysville Utility Commission's source of water can pose potential risks to your drinking water. Under certain circumstances, contaminants could be released that would pose challenges to water treatment, or even get into your drinking water. These activities, and how they are conducted, are of interest to the entire community because they potentially affect your health and the cost of treating your water. Activities immediately upstream of your water supply intake are of special concern because they provide little response time to the water system operators. An analysis of the susceptibility of the Maysville Utility Commission's raw water supply to contamination indicates that the susceptibility potential is generally high. There are several areas of high concern near the raw water withdrawal site. These sites of high concern include: Ports along the Ohio River where accidental spills of chemicals and petroleum products can occur, bridges located near the intake site pose a potential threat to the intake should an accidental release of a harmful substances be introduced into the water source; also railroads, row crops where agricultural chemicals can runoff into the water, abandoned oil or gas wells, active superfund sites, underground storage tanks, KPDES permitted discharges, areas with hazardous chemical usage and waste generators or transporters. Other sites of medium concern include an historical landfill site and an abandoned oil or gas well. The full text of the source water assessment can be viewed at the Buffalo Trace Area Development District office in Maysville.

### **What Does the Water Treatment Plant Do to Your Water**

After pumping the water from the Ohio River, we treat it with processes that remove any objectionable tastes or odors and then disinfect the water with chlorine before pumping it to our customers. These processes primarily achieve filtration and disinfection of the water. This helps to remove any harmful chemicals, bacteria and other microorganisms that might be in the water.

### **If You Have Questions or Want to Get Involved**

Questions about this report or operation of the water plant can be directed to Mr. Darren Garrison at 564-2513. The Maysville Utility Commission is the governing body for the Water Works and meets in the commission chambers at 216 Bridge Street, Maysville, on the second Wednesday of each month at 10:00 AM.

## Understanding This Report

In order to help you understand this report, we want you to understand a few terms and abbreviations that are contained in it.

Maximum Contaminant Level Goal (MCLG): It is 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.

Maximum Contaminant Level (MCL): This is 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 Residual Disinfectant Level (MRDL): Is the highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): Is the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Action Level (AL) An action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

NTU means Nephelometric Turbidity Units and is a measure of turbidity (cloudiness).

ppm means parts per million or milligrams per liter and is a measure of the concentration of a contaminant.

ppb means parts per billion or micrograms per liter and is a measure of the concentration of a contaminant.

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

ppm means parts per million or milligrams per liter and is a measure of the concentration of a contaminant.

ppb means parts per billion or micrograms per liter and is a measure of the concentration of a contaminant.

pCi/L means picocuries per liter and is a measure of radioactivity

N/A means not applicable for this item

Only contaminants that were actually detected by laboratory testing appear in the table below. Unless otherwise noted "level found" is the highest level of a contaminant detected. Most of the results in this table are from monitoring during the 2008 calendar year. However, some contaminants are not required to be monitored on an annual basis and so the results may be from prior years.

### Special Information on Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Maysville Utility Commission is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

### Special Information on the Intestinal Parasite *Cryptosporidium*

The Maysville Utility Commission tested for *Cryptosporidium*, a tiny intestinal parasite, in the source (untreated) water 24 from mid-2006 through mid-2008. During the entire period, the parasite was never detected. Despite detecting none in the untreated water, Maysville still optimizes its treatment processes to help ensure removal.

## Water Quality Data

| Contaminant (units)   | MCLG   | MCL     | Level Found  | Range of Detections                   | Violation | Date(s) of Sample(s)       | Typical Source of Contaminants  |
|---|--|---------|--|---------------------------------------|-----------|----------------------------|---|
| <b>Regulated Volatile Organic Compounds (VOC's)</b>                       |  |         |  |                                       |           |                            |   |
| Trihalomethanes – THMs (ppb)  | N/A  | 80      | 59.7 (running annual average)  | 21-143 (based on individual samples)  | NO        | Quarterly in 2008          | By-product of drinking water chlorination (disinfection).               |
| Haloacetic Acids – HAA5 (ppb)   | N/A  | 60      | 40.8 (running annual average)  | 21.3-87 (based on individual samples) | NO        | Quarterly in 2008          | By-product of drinking water chlorination (disinfection)                |
| <b>Synthetic Organic Contaminants Including Pesticides and Herbicides</b> |  |         |  |                                       |           |                            |   |
| Atrazine (ppb)  | 3  | 3       | 0.68   | <0.2-0.68                             | NO        | Twice in 2008              | Runoff from herbicide used in row crops                                 |
| <b>Volatile Disinfectant Compounds</b>                                    |  |         |  |                                       |           |                            |   |
| Chlorine (ppm)  | MRDL G=4   | MRDL =4 | 0.88 (running annual average)  | 0.50-1.09                             | NO        | 20 times per month in 2008 | Water additive used to control microbes                                 |
| <b>Inorganics</b>   |  |         |  |                                       |           |                            |   |
| Barium (ppm)  | 2  | 2       | 0.034  | N/A                                   | NO        | 2/2008                     | Discharge of drilling wastes; Erosion of natural deposits               |
| Copper (ppm)  | 1.3  | AL=1.3  | 0.112 (90 <sup>th</sup> percentile value)  | 0-0.313 (no sites > AL)               | NO        | 9/2007                     | Corrosion of household plumbing systems; Erosion of natural deposits    |
| Fluoride (ppm)  | 4  | 4       | 1.06   | 0.997-1.06                            | NO        | Twice in 2008              | Erosion of natural deposits; Water additive which promotes strong teeth |
| Nitrate (ppm)   | 10   | 10      | 0.608  | N/A                                   | NO        | 2/2008                     | Runoff from fertilizer use; Erosion of natural deposits.                |
| <b>Radiological Contaminants</b>  |  |         |  |                                       |           |                            |   |
| Alpha Emitters (pCi/L)  | N/A  | 15      | 0.4  | 0.1-0.4                               | NO        | 9/2003 and 12/2003         | Erosion of natural deposits   |
| <b>Microbiological and Related Contaminants</b>                           |  |         |  |                                       |           |                            |   |
| Total Organic Carbon (measured as ppm but reported as a ratio)            | TT see footnote 1 below  |         | 1.30 (running annual average of ratios)  | 0.34-2.63                             | NO        | Monthly in 2008            | Naturally present in the environment                                    |
| <b>Particulate Contaminants</b>   |  |         |  |                                       |           |                            |   |
| Turbidity (NTU)<br><br>See footnote 2 below                               | 95% of all monthly samples must be <0.3 NTU (TT) and no samples >1 NTU |         | Highest annual measurement was 0.35 in 5/2008.<br>Lowest monthly % below 0.3 was 98.7% in 5/2008 |                                       | NO        | Continuously in 2008       | Soil and stormwater runoff.   |

### Footnotes for Table

1 – Treatment technique (TT) is based on the lowest running annual average of the ratios of the % Total Organic Carbon (TOC) achieved to the TOC removal required. A minimum ratio of 1.00 is required to meet the TT.

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

## Violations

We are required to your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. Normally, synthetic organic compound must be tested twice in each three year cycle. When any of these compounds are detected, they must be tested on a quarterly basis until it is determined that they are reliably below safe levels as determined by the State of Kentucky Division of Water. When the herbicide atrazine was detected in June, monitoring should have commenced on a quarterly basis in the third quarter of 2008. Unfortunately, monitoring did not begin until the fourth quarter and will continue as long as it is deemed necessary. In the two samples taken since June, 2008, no atrazine has been detected. More details of this violation are included as the last page of this report.

## Why Are There Contaminants in My Water ?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and 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.

Contaminants that may be in source water before treatment include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife. Only wildlife are present in the Fern Lake watershed.

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.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can come from gas stations, urban stormwater runoff, and septic systems.

Radioactive contaminants which can be naturally occurring or the result of oil and gas production or mining.

In order to ensure that your water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protections for public health.

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.

## Do I Need to Take Any 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 (800)-426-4791.**

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| Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entienda bien. |
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## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### Monitoring Requirements Not Met for Maysville Utility Commission and its distribution system that includes Buffalo Trail Water Association, Flemingsburg Utility System, West Lewis-Rectorville Water District, and Western Mason County Water

Our water system violated a drinking water standard in the 2008 period. Even though this was not an emergency, as users of our water, you have a right to know what happened and what we did to correct this situation.

*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the calendar year 2008 we did not complete all monitoring or testing for the herbicide Atrazine and therefore cannot be sure of the quality of our drinking water during that time.*

#### What Should I Do ?

There is nothing you need to do at this time.

The table below lists the contaminants we did not properly test for during the 2008 period, how often we are supposed to sample for this contaminant, how many samples we took, when samples should have been taken, and the date on which follow-up samples were taken.

| Contaminant | Required Sampling Frequency   | Number of Samples Taken   | When All Samples Should Have Been Taken                    | When Samples Were Taken  |
|-------------|---|---|--|--|
| Atrazine    | 2 semiannual samples every three years OR quarterly monitoring if atrazine is detected in either of the 2 samples | 2 semiannual samples and one sample in the two quarter following the detection in June 2008 | 2 semiannual and one each in the last two quarters of 2008 | Quarterly sampling took place in fourth quarter of 2008 and first quarter of 2009. It will continue until State officials deem levels to be reliably low. Atrazine has NOT been detected in either of the 2 samples. |

#### What Happened ? What is Being Done ?

The violation was due to our not sampling and testing for atrazine in the third quarter of 2008 as required because of atrazine being detected in June of 2008. This happened because of miscommunication with our laboratory. Although failure to sample in the third quarter of 2008 means we cannot be sure of the quality of our water in that period with respect to atrazine, the two samples taken since then showed no atrazine was present.

For more information please contact Darren Garrison at the Maysville Utility Commission, 216 Bridge Street, 41056 Telephone 606-564-2513.

*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 Maysville Utility Commission, State water system ID#0810275. Date distributed is (insert future date) by mailing and publication in the Maysville Ledger-Independent.**