

# **2006 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 substance 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 2006 calendar year. However, some contaminants are not required to be monitored on an annual basis and so the results may be from prior years.

## 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	48.8 (highest running annual average)	17-107 (based on individual samples)	NO	Quarterly in 2006	By-product of drinking water chlorination (disinfection).
Haloacetic Acids – HAA5 (ppb)	N/A	60	44.2 (highest running annual average)	22-77 (based on individual samples)	NO	Quarterly in 2006	By-product of drinking water chlorination (disinfection)
<b>Volatile Disinfectant Compounds</b>							
Chlorine (ppm)	MRDL G=4	MRDL =4	0.87 (running annual average)	0.40-1.36	NO	Daily in 2006	Water additive used to control microbes
<b>Inorganics</b>							
Barium (ppm)	2	2	0.034	N/A	NO	2/2006	Discharge of drilling wastes; Erosion of natural deposits
Copper (ppm) See footnote 1 below	1.3	AL=1.3	0.0703 and 0.099 (90 <sup>th</sup> percentile values)	0-0.968 and 0.005-0.168 (no sites > AL)	NO	9/2004 and 9/2005	Corrosion of household plumbing systems; Erosion of natural deposits
Fluoride (ppm)	4	4	0.91	N/A	NO	2/2006	Erosion of natural deposits; Water additive which promotes strong teeth
Lead (ppb) See footnote 1 below	0	AL=15	0 and 2 (90 <sup>th</sup> percentile values)	All 0 and 0-4 (no sites >AL)	NO	9/2004 and 9/2005	Corrosion of household plumbing systems; Erosion of natural deposits.
Nitrate (ppm)	10	10	0.98	N/A	NO	2/2006	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 2 below		1.48 (lowest running annual average of ratios)	0-2.31	NO	Monthly in 2006	Naturally present in the environment
<b>Particulate Contaminants</b>							
Turbidity (NTU) See footnote 3 below	95% of all monthly samples must be <0.3 NTU (TT) and no samples >1 NTU		Highest annual measurement was 0.61 in 7/2006. Lowest % of monthly samples <0.3 was 97.9% in 8/2006		NO	Continuously in 2006	Soil and stormwater runoff.

### Footnotes for Table

1 – The first set of values for both lead and copper was from 9/2004 sampling in the portion of the system that did not contain Southern Mason Water District. The second set of values from 9/2005 is from the Southern Mason Water District that has since been purchased and is now a part of the Maysville system.

2 – 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.

3 – 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. In January 2006 we did not complete the required monitoring for total organic carbon and therefore cannot be sure of the quality of our drinking water during that time. Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes, or THMs, and haloacetic acids, or HAAs. Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer. However, you should be aware that we were in compliance with acceptable levels of these THMs and HAAs in 2006.

Since this violation we have worked with our laboratory to ensure that all required sampling will be completed when required. Since that time, we have been in compliance for TOC monitoring.

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.

## 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.**

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