For more information, contact us at:
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2070 Tamarack Road
P.O. Box 806
Owensboro, Kentucky 42302-0806
or visit our web site at www.omu.org

Local people.
OMU
Local service.

Water Quality Report 2004

Maximum Contaminant Level Goal or MCLG: the level of a contaminant in drinking water below which there is no known or expected risk to public health. MCLGs allow for a margin of safety.
Maximum Contaminant Level or MCL: The highest level of 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 or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
Action Level or AL: The concentration of a contaminant which, if exceeded triggers treatment or other requirements which a water system must follow.
NTU: nephelometric turbidity units. Turbidity is used to indicate the effectiveness of filtration.
ppm: parts per million ppb: parts per billion < = Less than
pCi/L: Picocuries per liter
TT: Treatment technique, a required process intended to reduce the level of a contaminant in drinking water.

Other Information

Alpha emitters: Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Combined radium health effects: Some people who drink water containing radium-226 or –228 in excess of the MCL over many years may have an increased risk of getting cancer.

Total Coliform Bacteria: 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.

Source Water Assessment Information

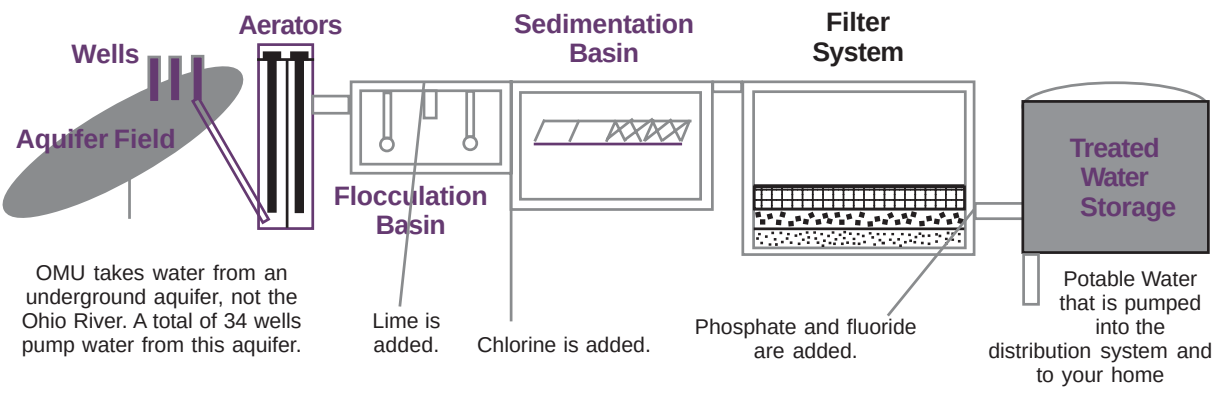
The source of raw water for Owensboro Municipal Utilities is the Ohio River Alluvium in Daviess County. An analysis of the overall susceptibility to contamination of the Owensboro Municipal Utilities' water supply indicated that this susceptibility is moderate. There are a total of 220 potential sources of contamination within the wellhead protection area with the following susceptibility rankings: 17 high, 165 medium, and 38 low. Sources of high potential impact include: above ground storage tanks, underground storage tanks, an auto repair facility and industrial land use. Sources of moderate to low potential impact include: above ground storage tanks, underground storage tanks, auto repair facilities, industrial land use, professional offices, dry cleaners, food service facilities, quarries, hazardous material storage, and municipal land use. This is a summary of the susceptibility analysis. The complete Susceptibility Analysis Report is available at the Green River Area Development District and at the Division of Water.

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 the 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).

Example of a Simplified Water Treatment System

The following diagram is a brief explanation of the water treatment process. Please contact us if you have any further questions. As you can see, water goes through many steps before it reaches your home or business.



Our Water Quality Report is also posted on our website at www.omu.org

Water Quality Report

2004

Your Water Quality Report

At OMU, we take water seriously. For over 100 years, we have been proudly providing it to the citizens of Owensboro. Just how seriously do we take it? Owensboro Municipal Utilities maintains its own water quality testing laboratories. The experienced and certified water quality personnel analyze chemical and bacteriological tests on water samples throughout the year. These samples are taken from each section of the treatment process as well as from various sites around Owensboro and analyzed 365 days a year to insure water safety and quality. OMU supplies water to over 57,000 residents in Owensboro. We also sell water to three districts that serve the remainder of Daviess County and customers in some surrounding counties. Owensboro Municipal Utilities' mission is to serve our community by providing quality utility services at the most economical cost, and we never forget that commitment.

How many of you believe that Owensboro gets its water out of the Ohio River? You might be surprised to learn that Owensboro, a ground water source, actually gets its water from a large, deep underground aquifer on the northeast side of Owensboro. This large aquifer contains water that has been naturally filtered as it works its way through layers of the earth. Water is pumped from wells that delve into this water supply. The water from each well is transported through a central gathering line and piped to one of the two water treatment plants. The following report will give you an overview of your water quality for the calendar year 2004.

How can I get involved?

Customers of Owensboro Municipal Utilities may ask questions about their water quality at the regular monthly meeting of the City Utility Commission. Meetings are normally held on the third Thursday of each month at 4 p.m. Meetings are located in the third floor boardroom at the OMU Customer Service Center, 2070 Tamarack Road. Other sources of information on water quality include OMU's website (www.omu.org), the American Water Works Association website (www.awwa.org), and the Kentucky Division of Water's website (www.water.ky.gov/dw). For more information about OMU's water, customers may also contact Stephanie Stickler at OMU at 270-926-3200 ext. 272 or 323.

What is the source of my water?

Owensboro Municipal Utilities pumps water from deep wells to two water treatment plants. The wells are located in one aquifer that runs along US Highway 60 East and is protected by a clay layer. When the water reaches the treatment plants it is aerated to remove any odors that have been picked up by the extraction process and to begin oxidizing minerals picked up from the ground. The water is then softened with lime. Water from the ground tends to have a very high amount of hardness (250-350 ppm). OMU reduces this by almost half before the water is further processed (150-200 ppm). Next, the water is chlorinated to kill any microorganisms that may have survived the previous processes. The water is then filtered through anthracite, sand and gravel to remove any turbidity. Lastly, fluoride and a polyphosphate are added to the water. A copy of the wellhead protection plan and the source water assessment for Daviess County can be obtained obtained from the offices of Green River Area Development offices at 3860 US Highway 60 West or by calling 926-4433.

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 the water poses a health risk. More information about contaminants and potential health risks can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). The sources of drinking water (both tap 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 human activity.

Contaminants that may be present in source water used for public supplies or bottled water includes (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 storm water 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 storm water runoff, and residential uses. (D) Organic chemical contaminants, including synthetic and volatile chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water 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 that tap water is safe to drink, the EPA prescribes regulations that limit the amounts of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Water Quality Table

OMU has laboratories located at both of its water treatment facilities.Water is tested daily for basic parameters (ex: fluoride and total hardness). These tests are conducted by trained operators and water quality personnel. The Cavin Plant also has a certified laboratory for total coliform and E. coli. Additional testing is sent to certified labs that have experience analyzing for other water contaminants. OMU conducts a vast amount of testing each year. Contaminants such as lead and copper are required less frequently than once a year. Data for lead and copper represent the latest round of sampling. The following table represents the detected contaminants.

2004 WATER QUALITY INFORMATION

All analyses are performed by state-certified laboratories

Substance	Units	EPA's MCL	Ideal Goals (MCLG)	Highest Level Detected	Range	Sources of Contaminant
Microbiological Contaminants						
Total Coliform		5% of monthly samples are positive	0	1.58%	0.0 - 1.58%	Naturally occuring bacteria in the environment.
E.Coli		A routine sample and a repeat sample are total coliform positive, and one is also E. coli positive	0	0	0	Human and fecal waste.
Physical Properties						
Turbidity	NTU	TT=95% of monthly samples must be below 0.3	NA	0.37, highest monthly average 0.07	0.01-0.37; 99.98% of samples were below 0.3 NTU, lowest monthly average 0.03	Lime addition in water treatment process.
Inorganic Contaminants						
Combined Radium Measured as Radium 226 (pCi/L)	pCi/L	5	0	0.2	0.2	Erosion of natural deposits.
Radium Measured as Radium 228 (pCi/L)	pCi/L	5	0	1.9	1.9	Erosion of natural deposits.
Alpha emitters	pCi/L	15	0	0.2	0.2	Erosion of natural deposits.
Fluoride	ppm	4	4	1.18	0.91 - 1.18	Water additive to promote strong teeth; Erosion of natural deposits.
Copper (2002)	ppm	AL = 1.3	1.3	0.0414	0.0046-0.0414; 0.0325=90th percentile, no sites exceeded the AL	Corrosion of household plumbing.
Chlorine	ppm	MRDL = 4	MCLG = 4	1.25 highest annual running average	Monthly Range 1.11 - 1.40	Water additive used to control microbes.
Lead (2002)	ppb	AL = 15	0	3.7	<1-3.7; <1=90th percentile, no sites exceeded the AL	Corrosion of household plumbing.
Total Trihalomethanes	Ppb	80 (avg.)	0	46 highest highest annual. running average	Range 31 - 54	By-product of drinking water disenfection.
Total Haloaectic Acids	Ppb	60 (avg.)	0	15.9 highest annual running average	Range 11 - 20	By-product of drinking water chlorination.