

Getting Involved

We appreciate your comments and the opportunity to serve you. Warren County Water District Board Meetings are open to the public and are held at 5:15 p. m. on the 4th Tuesday of every month at the WCWD offices located at 523 US 31-W Bypass, Bowling Green, KY.

Members of the Board of Commissioners serving you are:

R. Harvey Johnston, III - Chairman
James Scott - Vice Chairman
Glen Johnson - Secretary
Henry Honaker - Treasurer
Joe Taylor, Sr.
David Cole - Attorney
Hamp Moore - Attorney

If you have any questions about this report or concerning your water utility, please contact Mr. Hauke May, Manager of Operations, at 270-842-0052, Extension 560.

Joe Liles - General Manager

Water System Security

To ensure the safety and security of the drinking water supply to our customers, WCWD has completed a vulnerability assessment of the entire distribution system and we are taking the steps necessary to ensure that the water that is supplied to you is safe and of the highest quality possible.

When we contact our customers, WCWD personnel will always adequately identify themselves by phone or in person. If you are not sure about someone who claims to represent WCWD, please call us at (270) 842-0052 and ask us to verify their identity. WCWD does not engage in the sale or marketing of any products other than the drinking water that we supply to you.

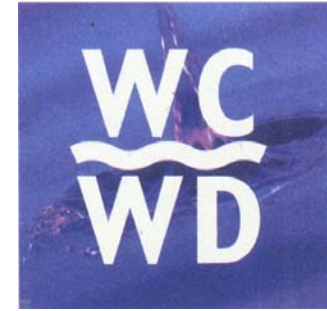
DID YOU KNOW...?

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters (approximately 1/2 gallon) every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Warren County Water District
P.O. Box 10180
Bowling Green, KY 42102-4780

ATTENCION

*Este informe contiene
información muy
importante sobre su
agua potable.
Tradúzcalo o hable con
alguien que lo entienda
bien.*



**WARREN COUNTY
WATER DISTRICT**
PWS ID # 1140487

2003 WATER QUALITY REPORT



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Committed to Quality

Once again, Warren County Water District (WCWD) proudly presents its annual water quality report that covers all water quality testing that was completed in 2003. This report provides you with information regarding possible contaminants that may be present in your drinking water and to give you a better understanding of what steps we take to ensure that your water is safe and pleasant to drink.

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 water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the EPA 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 case, radioactive material, and can pick up substances resulting from the presence of animals and human activity. Contaminants that may be present in source water include microbial contaminants, inorganic contaminants, pesticides and herbicides, organic chemical contaminants, and radioactive contaminants. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants provided by public water systems.

What are these contaminants?

Microbial Contaminants - viruses and bacteria which come from septic systems, agricultural livestock operations, and wildlife.

Inorganic Contaminants - salts and metals that occur naturally or result from stormwater runoff, wastewater discharge, oil and gas production, mining, and farming.

Volatile Organic Contaminants, including Pesticides and Herbicides - chemicals originating from sources such as agriculture, stormwater runoff, and residential uses.

Organic Chemical Contaminants - synthetic and volatile organic chemicals which are byproducts of industrial processes and petroleum production. Can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive Contaminants - materials that occur either naturally or as a result of petroleum production or mining activities.



Where Does Your Water Come From?

Warren County Water District (WCWD) purchases most of its water from Bowling Green Municipal Utilities (BGMU), which uses the Big Barren River, a surface water source, as its source of raw water. The Big Barren River flows out of Barren River Reservoir, a flood control lake designed to help prevent flooding in the populated areas west of Allen and Barren Counties. Drake's Creek joins the Big Barren River approximately three miles above BGMU's raw water intakes. Drake's Creek is fed by Trammel Creek and flows north out of Franklin, Kentucky.

In 2003, we also purchased water from the Glasgow Water Company (GWC) in Barren County. GWC uses the Barren River Reservoir, a surface water source, as its source of raw water. Water purchased from GWC was used to service customers in the northeastern part of Warren County, including Smith's Grove and the area east of Goshen Church Road.

The final source water assessment with a summary of the system's susceptibility to potential sources of contamination is available for review at the Barren River Area Development District Office located at 177 Graham Avenue in Bowling Green. An analysis of the susceptibility of the BGMU public water supply to contamination indicates that the susceptibility is generally moderate. There are, however, some areas of concern. There are two bridges located in the area near the intake. Should an accidental release of contaminants occur from any of these sites, these contaminants could potentially reach BGMU's intake.

There are also some areas of the Barren River that have been classified as impaired, one KPDES permitted discharger, several hazardous generators or transporters, Tier II hazardous chemical users, an inactive landfill, and an underground storage tank located in the immediate area of the intake. Within the greater watershed there are numerous permitted operations and activities and other potential contaminant sources that cumulatively increase the potential for the release of contaminants. These potential contaminant sources include several underground storage tanks, oil and gas wells, bridges, agricultural use, hazardous chemical users (one of which is registered with the Toxic Release Inventory System), and Tier II hazardous chemical users.

Guthrie, Richards, Thomas and Wilkey Provide Continued Growth in our Community

In 2003, thanks to State Representatives Roger Thomas, Jody Richards, Rob Wilkey and Senator Brett Guthrie, the Kentucky General Assembly approved a \$1.5 million grant for Warren County to be used for water system expansion. The grant funds originated from the Tobacco Development Fund. The funds that were allocated to Warren County are being used to construct water and sewer facilities that will result in improved public safety and increased economic development. Projects that are under construction are:

- (1) The construction of larger water mains along portions of Morgantown Road, Hammitt Hill Road and Highway 526;
- (2) The construction of a new water line that will cross William Natcher Parkway to Clifty Hollow Road;
- (3) The construction of an elevated storage tank in the Riverside-Ben Leo area;
- (4) The installation of 18 fire hydrants;
- (5) Improving the pumping capacity of two water pumping stations along Morgantown Road;
- (6) The construction of new sewers to the Cemetery Road and Lover's Lane intersection area.

Plans for a new 24-inch water main that will be constructed

from BGMU's water treatment plant across the Big Barren River to serve the northern part of Warren County are also being finalized.

WCWD is working closely with the Bowling Green Chamber of Commerce to provide services for new industries that are locating in our community. Steady growth is continuing to drive a healthy housing market and WCWD is working with developers towards the development of several new subdivisions. WCWD is committed to not only providing clean, safe, high quality drinking water but also to supplying the quantities needed for the continued development of our vigorous, growing community.



Installation of new water mains along Morgantown Road.

WARREN COUNTY WATER DISTRICT 2003 WATER QUALITY REPORT

Each year, WCWD, BGMU and GWC perform numerous tests to ensure that the drinking water delivered to you is safe. In 2003, we tested for over 100 regulated and many more unregulated contaminants. The table above provides a listing of the contaminants detected and information on the maximum allowable levels of contaminants that were detected. Some of the abbreviations used in the table are:

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.

Maximum Residual Disinfectant Level (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 (MRDLG) - the highest 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.

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Parts per million (ppm) - one part per million corresponds to one minute in two years, or a single

penny in \$10,000.

Parts per billion (ppb) - one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system shall follow.

Below Detection Level (BDL) - laboratory analysis indicates that the contaminant is not present.

Not Applicable (N/A) - does not apply.

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

Picocuries per liter (pCi/L) - a measure of radioactivity in water.

Cryptosporidium in Drinking Water:

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. BGMU tests for the presence of cryptosporidium in its raw and finished water. In 2003, there were no detections in the finished water. However, out of twelve raw water samples taken in 2003, there were five detections of cryptosporidium.

At the present time, there is no MCL established for cryptosporidium. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. BGMU's monitoring indicates the presence of low levels of these organisms in its source water. Current test methods do not allow BGMU to determine if the organisms are dead or capable of causing disease. The presence of these organisms does not cause BGMU concern because there have not been any detections in the finished water. BGMU will continue testing for the organism to ensure the public health is protected.

Special Health Information

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).

IMPORTANT NOTES ABOUT THE TEST RESULTS SHOWN

The test results shown in the table to the left are representative of testing completed in the 2003 calendar year unless otherwise indicated.

Footnotes:

- ¹ - Lowest monthly average;
- ² - Monthly Ratios;
- ³ - 90th Percentile;
- ⁴ - Highest Average;
- ⁵ - Annual Average

***Turbidity** - Turbidity is a measure of the cloudiness of the water. In January 2003, BGMU did not meet the required TT for turbidity. During this month, 10.75% of the samples taken were greater than 0.3 NTUs. The standard is that not more than 5% of the monthly samples may be greater than 0.3 NTUs. A Public Notification regarding this violation was published by BGMU and WCWD in the Park City Daily News in February and March 2003 and notices were sent to all bill-paying customers with their monthly statements.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may also indicate the presence of disease-

causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches. A problem occurred with the treatment system at BGMU's water plant from January 25th through January 29th, 2003. Construction activities at the plant resulted in reduced filtering capacity at the plant. High water demand, very cold temperatures and low raw water turbidity further impacted the plant's ability to remove turbidity. Additional filter aid chemicals were used to reduce finished water turbidity and the use of a different type of coagulant has been implemented. BGMU has consistently met the 0.3 NTU standard since implementing these changes.

PARTICULATE TEST RESULTS									
Water Source	Highest Level Detected	Lowest Monthly %	Violation Yes / No	Likely Source					
BGMU	0.96	89.2%	Yes*	Soil Runoff					
GWC	0.98	97.3%	No						
REGULATED CONTAMINANT TEST RESULTS									
Contaminant (Units)	MCL	MCLG	Water Source	Level Found	Range	Date of Sample	Violation Yes / No	Likely Source of Contamination	
Microbiological Contaminants									
Total Coliform Bacteria (% positive samples)	5%	0	WCWD	0 to 3.33%	N/A		No	Naturally present in the environment.	
			GWC	0 to 4.35%	N/A		No		
Total Organic Carbon (ppm) (measured as ppm but reported as a ratio)	TT	N/A	BGMU	1.09 ¹	0.37 to 2.05 ²		No	Naturally present in the environment.	
			GWC	1.33 ¹	1.03 to 1.95 ²		No		
Radioactive Contaminants									
Alpha Emitters (pCi/L) (Gross Alpha)	15	0	BGMU	0.9	0 to 0.9	2002	No	Erosion of natural deposits.	
			GWC	0.7	0 to 0.7	2002	No		
Combined Radium (pCi/L) (Measured as Radium 228)	5	0	BGMU	1.1	0 to 1.1	2002	No	Erosion of natural deposits.	
			GWC	0.9	0.4 to 0.9	2002	No		
Inorganic Contaminants									
Barium (ppm)	2	2	BGMU	0.025	N/A		No	Discharge from drilling wastes; discharge from metal refineries; erosion of natural deposits.	
			GWC	0.0183	N/A		No		
Chlorine (ppm)	MRDL	MRDLG	WCWD	1.1 ⁴	0.95 to 1.23		No	Water additive used to control	
Chromium (ppb)	100	100	BGMU	4.1	N/A		No	Discharge from steel and pulp mills; Erosion of natural deposits	
Copper (ppm) - (Level Found is 90th percentile. No sites exceeded the AL)	AL: 1.3	0	WCWD	0.06 ³	0.0023 to 0.17		No	Corrosion of household plumbing systems.	
			BGMU	1.21	0.92 to 1.21		No		
Fluoride (ppm)	4	4	BGMU	1.4	0.82 to 1.4		No	Water additive which promotes strong teeth.	
			GWC	1.4	0.82 to 1.4		No		
Lead (ppb) (Level Found is 90th percentile. No sites exceeded in AL)	AL: 15	0	GWC	3.4 ³	N/A	2001	No	Corrosion of household plumbing systems; erosion of natural deposits.	
			BGMU	2.4	BDL to 2.4		No		
Nitrate (as Nitrogen) (ppm)	10	10	GWC	1.7	BDL to 1.7		No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.	
			BGMU	2.4	BDL to 2.4		No		
Synthetic Organic Contaminants									
Atrazine (ppb)	3	3	BGMU	0.2	BDL to 0.2		No	Runoff from herbicides used on	
Volatile Organic Contaminants									
Haloacetic Acids or HAA's (ppb)	60	N/A	BGMU	43.5 ⁵	9.8 to 81.4		No	Byproduct of drinking water disinfection	
			GWC	49.4 ⁵	17.3 to 65		No		
TTHM [total trihalomethanes] (ppb)**	80	N/A	BGMU	49.2 ⁵	12.3 to 100.9		No	By-product of drinking water chlorination	
			GWC	48.3 ⁵	23 to 65		No		