

## Water Quality ...

### Not Just A Commitment; A Profession

Each year, BCWS performs numerous tests to ensure that the drinking water delivered to you is safe. In 2006, the water was tested for over 100 regulated contaminants. We are pleased to report that the water delivered to you has met or exceeded the quality standards required by state and federal laws. This report provides you with information regarding the substances that we found to be present in your drinking water and will 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 small amounts of 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) 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. Water also 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 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. FDA regulations establish limits for contaminants in bottled water to provide the same protection for public health.

## What Are These Contaminants?

**MICROBIAL CONTAMINANTS**-viruses and bacteria that 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 are by-products of industrial processes and petroleum production. This contaminant can also come from gas stations, urban stormwater runoff and septic systems.

**RADIOLOGICAL CONTAMINANTS**-materials that occur either naturally or as a result of petroleum production or mining activities.

## Cryptosporidium In Drinking Water

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. BCWS tests for cryptosporidium in our raw and finished water.

At the present time, there is no Maximum Contaminant Level (MCL) established for cryptosporidium. Therefore, we are not required to test for these organisms. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of low levels of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. The presence of these organisms does not cause concern, because we have not had detections in the finished water. Nevertheless, we will continue testing for the organisms to ensure the public health is protected.

## Special Health Information

Some individuals may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised individuals such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, as well as some elderly and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the EPA Safe Drinking Water Hotline (800) 426-4791.

# 2 0 0 6 T E S T R E S U L T S

The data presented in this report are from the most recent testing done in accordance with Administrative Regulation 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old. Unless otherwise noted, the report level is the highest level detected.

	Allowable Levels		Highest Single Measurement	Lowest Monthly %	Violation	Likely Source	
	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source
<b>Turbidity (NTU) (Continuously)</b>	Never more than 1 NTU. Less than 0.3 NTU's 95% of samples each month.		0.8	99	No	Soil Runoff	
<b>Microbial Contaminants</b>							
<b>Total Coliform Bacteria (% positive samples) BCWS-monthly</b>	5%	0	1.00%	0 to 1.00%	2006	No	Naturally present in the environment
<b>Radioactive Contaminants</b>							
<b>Alpha Emitters (pCi/L) (Gross Alpha)</b>	15	0	0.2	0 to 0.2	2002	No	Erosion of natural deposits
<b>Combined Radium (pCi/L) (Measured as Radium 228)</b>	5	0	0.9	0 to 0.9	2002	No	Erosion of natural deposits
<b>Inorganic Contaminants</b>							
<b>Barium (ppm)</b>	2	2	0.021	0.021	2006	No	Drilling wastes; metal refineries; erosion of natural deposits
<b>Copper (ppm) (Level found is 90th percentile. No sites exceeded the AL)</b>	AL = 1.3	1.3	0.041	0.002 to 0.115	2006	No	Corrosion of household plumbing systems
<b>Fluoride (ppm)</b>	4	4	1.38	0.87 to 1.38	2006	No	Water additive which promotes strong teeth.
<b>Lead (ppm) (Level found is 90 th percentile. No sites exceeded the AL) BCWS</b>	AL = 15	0	0.001	0.001 to 0.003	2006	No	Corrosion of household plumbing systems
<b>Nitrate (ppm)</b>	10	10	2.21	0.993 to 2.21	2006	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Synthetic Organic Contaminants including Herbicides and Pesticides</b>							
<b>Atrazine</b>	3	3	0.29	0.1 to 0.29	2006	No	Runoff from herbicide used on row crops
<b>Di(2-ethylhexyl)phthalate (ppb)</b>	6	0	1.5	0.0001	2006	No	Discharge from rubber and chemical factories
<b>Disinfectants/Disinfection Byproducts and Precursors</b>							
<b>Total Organic Carbon (ppm) (measured as ppm but reported as a ratio)</b>	TT	N/A	1.34	0.86 to 2.75	2006	No	Naturally present in the environment
<b>Chlorine (ppm)</b>	MRDL 4	MRDLG 4	1.21 (highest average)	0.50 to 1.90	2006	No	Water additive used to control microbes
<b>Haloacetic Acids or HAA's (ppb)</b>	60	N/A	51 (highest average)	23 to 83	2006	No	By-product of drinking water chlorination
<b>TTHM [total trihalomethanes] (ppb)</b>	80	N/A	46 (highest average)	28 to 69	2006	No	By-product of drinking water chlorination

**Lead and Copper**- In June, 2006 BCWS is required to test for the presence of lead and copper in the drinking water. During these tests, no lead was detected in the drinking water.

**Haloacetic Acids (HAA's)** - Although the HAA levels in the water supplied by BCWS are below the current MCL, "individual" samples obtained by BCWS have been detected to be above the running annual average MCL and we are therefore including the following health effects language: Some people who drink water containing haloacetic acids in excess of the MCL, over many years may have an increased risk of getting cancer.

**TTHM [total trihalomethanes]** - Although the TTHM levels in the water supplied by BCWS are below the current MCL, "individual" samples obtained by BCWS have been detected to be above the running annual average MCL, and we are therefore including the following health effects language: Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their kidneys, or central nervous system, and may have an increased risk of getting cancer.

**(VOC's) Volatile Organic Compounds**- In 2006, Butler County Water System, Inc. received a notice of violation for failure to submit analytical results for the specified contaminant for the compliance period 01/01/2006-12/31/2006. VOC's, are tested by collecting one sample and testing that sample for all the VOC's. VOC's are commonly used in industrial and manufacturing processes. VOC's include benzene, carbon tetrachloride, para-dichlorobenzene, 1,2-dichloroethane, cis1,2-dichloroethylene, dichloromethane, trichloroethylene 1,2-dichloropropane, ethylbenzene, styrene, tetrachloroethylene, 1,1,1-trichloroethane, toluene, 1,2,4-trichlorobenzene, 1,1-dichloroethylene, trans-1,2-dichloroethylene 1,1,2-trichloroethane, monochlorobenzene, o-dichlorobenzene vinyl chloride, and xylene.

## Table Definitions

**AL(ACTION LEVEL)** –the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system shall follow.

**BDL (BELOW DETECTION LEVEL)** –laboratory analysis indicates that the contaminant I is not present.

**MCL (MAXIMUM CONTAMINANT LEVEL)** –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.

**MCLG (MAXIMUM CONTAMINANT LEVEL GOAL)** –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.

**MRDL (MAXIMUM RESIDUAL DISINFECTANT LEVEL)** –the highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**MRDLG (MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL)** –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.

**NTU (NEPHELOMETRIC TURBIDITY UNIT)** –a measure of the clarity of water. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

**N/A (NOT APPLICABLE)** –does not apply.

**PPM (PARTS PER MILLION)** –one part per million corresponds to one minute in two years, or a single penny in \$10,000.

**PPB (PARTS PER BILLION)** –one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

**pCi/L (PICOCURIES PER LITER)** –a measure of radioactivity in water.

**TT (TREATMENT TECHNIQUE)** – a required process intended to reduce the level of a contaminant in drinking water.

## Did You Know?

Water is necessary for a person to maintain a healthy life and keep a properly functioning body. In order to live a long healthy life, a person must consume eight glasses of water each day. The drinking water facts below show how important water is to a person's body. Drinking the proper amount of water can:

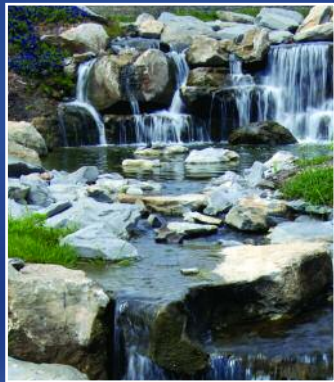
- Improve your energy
- Increase your mental and physical performance
- Remove toxins & waste products from your body
- Keep skin healthy and glowing
- Help you lose weight
- Reduce headaches and dizziness
- Allow for proper digestion
- Help to keep you more alkaline
- Reduce cardiovascular stress
- Decrease risk of dehydration

Visit <http://www.betterwayhealth.com/drinking-water.asp> for more ways to improve your health.



## Where Does My Water Come From?

Butler County Water System, Inc. (BCWS) draws its water from the Green River, a surface water source, which flows through Butler County. The water is supplied to the areas



north and south of the Green River and is treated by BCWS at its water treatment plant located in Morgantown.

The Safe Drinking Water Act, amended in 1996, requires Community Public

Water Systems to prepare a source water assessment report. The plan includes a Source Water Plan (SWAP) that summarizes our susceptibility to contamination.

An analysis indicates that our system's susceptibility to contamination is generally moderate. Areas of concern include potential contaminant sources such as bridges, underground storage tanks, an active landfill and agricultural chemical use in the area near and surrounding the raw water intake.

The final source water assessment plan with complete information of the system's susceptibility to potential sources of contamination is available for review at our office or the Barren River Area Development District Office located at 177 Graham Avenue in Bowling Green, Kentucky.

## The Value of Water



Here in Butler County, we are fortunate to provide customers with a plentiful supply of fresh water. But globally, and even in and around the United States, others do not have access to fresh drinking water. As our world's population is increasing, issues of water

availability are on the rise. Water is a finite resource; so the amount of water that supplies the world's population is falling short in relation to its high demand. Even though many are lucky to have access to clean, safe drinking water, it is important that we use all that we need, but waste none so that we can protect this resource for future generations. For additional information on how to conserve water, visit our Web site at [www.butlerwater.com](http://www.butlerwater.com) or the United States Environmental Protection Agency site at [www.epa.gov/safewater/publicoutreach/index.html](http://www.epa.gov/safewater/publicoutreach/index.html)



## The People Behind the Water



There are people who are skilled in a variety of professions that work diligently on a daily basis to provide you with high quality water. Regulators at the U.S. Environmental Protection Agency and Kentucky Division

of Water set and implement a range of quality standards that must be met

consistently throughout the U.S. Treatment plan operators collect and then purify water before it goes to a vast distribution network. Scientists test water samples around the clock to verify its purity. And locally, the men and women of



Butler County Water System – operators, field crews, instrumentation experts, engineers, customer service representatives and more – work non-stop to deliver clean, safe drinking water to

your homes and businesses. Thousands of people working for YOU every day!



## Providing You With Quality On Tap

Butler County Water System, Inc. is once again proud to provide this Annual Water Quality Report which demonstrates that we are continuing to remain in compliance with state and federal water quality standards. This publication provides you with information about BCWS and the fresh drinking water we supply to the homes, businesses and industries in and around Butler County.

We take seriously our responsibility of transporting millions of gallons of water each day to approximately 4,600 customers and test the water routinely over the course of a month to ensure its quality. We are equally vigilant in our planning and maintenance to ensure that reliable facilities are available around the clock to bring fresh drinking water to all those who need it.



In this document, you will find a detailed report on the quality of your drinking water. This report covers all testing completed January through December 2006. If you have any questions regarding this report, please contact Mr. Alan Vilines, General Manager, at (270) 526-4656.

## Additional Information On Water Quality

Butler County Water System Web Site	<a href="http://www.butlerwater.com">www.butlerwater.com</a>
Bowling Green Municipal Utilities	270-782-1200 or <a href="http://www.bgmu.com">www.bgmu.com</a>
Kentucky Rural Water Association	270-843-2291 or <a href="http://www.krwa.org">www.krwa.org</a>
Kentucky Division of Water	502-564-3410 or <a href="http://www.water.ky.gov">www.water.ky.gov</a>
U.S. EPA Safe Drinking Water Hotline	800-426-4791
U.S. EPA Web Site	<a href="http://www.epa.gov/safewater/hfacts.html">www.epa.gov/safewater/hfacts.html</a>

## Get Involved

We appreciate your comments and the opportunity to serve you. Butler County Water System, Inc. board meetings are open to the public and are held at 7 p.m. on the third Tuesday of every other month at the BCWS offices located at 104 S. Tyler Street, Suite B, Morgantown, KY. Please call us at (270) 526-4656 for more information.

## The BCWS Board of Commissioners

Roland Stephens-President  
T.O. Hampton-Vice President  
Garry Robbins-Secretary/Treasurer  
David Martin  
Russell Tynes  
Richard Deye-Attorney

## BCWS Staff

Alan Vilines-General Manager  
Jon Schubarth-Manager of Engineering  
Jeff Peeples-Manager of Finance & Administration  
David Maciel-Manager of Operations

## Atencion

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

*Providing high quality water service to families and businesses throughout Butler County.*

# Butler County

## WATER SYSTEM, INC.

# Water Quality Report

# 2007



Butler County Water System