

BOONSBORO/KEEDYSVILLE REGIONAL WATER SYSTEM
2007 WATER QUALITY REPORT

We are very pleased to present to you the Annual Water Quality Report for the 2007 calendar year for the Boonsboro/Keedysville Regional Water System. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and the extra steps we take to protect our water resources. We are committed to ensuring the quality of your water.

Your drinking water comes from the Tomstown Dolomite, a ground water source made of carbonate rock, which forms an aquifer feeding a combination of wells and springs which is filtered, chlorinated and processed *with fluoride* through the Boonsboro and Keedysville Water Treatment Plants. The Boonsboro/Keedysville Water System staff diligently monitor for constituents in your drinking water insuring safety according to Federal and State laws.

Your water is tested because all sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably 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.

Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **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.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water 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 also come from gas stations, urban storm water runoff, and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.
- **Total organic carbon (TOC)** has no health effects. However, total organic carbon provides a medium for the formation of disinfection by products. These byproducts include trihalomethanes (THMs) and haloacetic acids (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. *Your drinking water contains levels of THMs and HAAs well below the Maximum Contaminant Level set by the EPA.*

To ensure that your tap water is safe to drink, the Environmental Protection Agency (EPA) sets regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations set limits for contaminants in bottled water that must provide the same protection for public health. **Some people may be more vulnerable** to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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 microbiological contaminants are available from the *Safe Drinking Water Hotline* (1-800-426-4791). 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.

Monitoring results in this report are for the period of January 1 to December 31, 2007 and will show that our system had no violations. Although monitoring and test results detected some constituents, the EPA has determined that your water IS SAFE at these levels.

Contaminant	Source	Sample Date	MCLG	MCL/ TT	Your Water	Violation	Source of Contamination
Volatile Organic Chemicals							
Haloacetic Acids (ppb)	D	2007	N/A	60	.94	N	Product of Chlorine Disinfection
Trihalomethanes (ppb)	D	2007	N/A	80	1.91	N	Product of Chlorine Disinfection
Radioactive Contaminants							
Gross Alpha (pCi/L)	1	2003	N/A	15	3	N	Erosion of natural deposits
Gross Alpha (pCi/L)	2	2003	N/A	4	1	N	Erosion of natural deposits
Gross Alpha (pCi/L)	3	2003	N/A	4	2	N	Erosion of natural deposits
Inorganic Contaminants							
Fluoride (ppm)	1	2006	4	4	1.1	N	Erosion of natural deposits; water additives promoting strong teeth; discharge from fertilizer and aluminum factories
Fluoride (ppm)	2	2007	4	4	1.06	N	
Fluoride (ppm)	3	2006	4	4	1	N	
Nitrate (ppm)	1	2007	10	10	3.4	N	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate (ppm)	2	2007	10	10	4.8	N	
Nitrate (ppm)	3	2007	10	10	3.5	N	
Chromium (ppm)	1	2006	0.1	0.1	.01	N	Discharge of drilling wastes; metal refineries; erosion of natural deposits
Beryllium (ppm)	1	2006	0.004	0.004	.001	N	
Copper (ppm)	D	2005	1.3	1.3	.17	N	Corrosion of household plumbing systems, Erosion of natural deposits
Lead (ppm)	D	2005	0	0.015	.005	N	
Mercury (ppm)	2	2007	2	2	.0005	N	Erosion of natural deposits
Synthetic Organic Contaminants including Pesticides and Herbicides							
Di-(2-ethylhexyl) phthalate (ppb)	1	2005	0	6	.9	N	Discharge from rubber and chemical factories
Di-(2-ethylhexyl) phthalate (ppb)	2	2007	0	6	.6	N	Discharge from rubber and chemical factories
Di-(2-ethylhexyl) phthalate (ppb)	3	2006	0	6	1	N	Discharge from rubber and chemical factories
Unregulated Contaminants							
Sodium (ppm)	1	2006	MNR	MNR	21.3	N	Erosion of natural deposits
Sodium (ppm)	2	2007	MNR	MNR	24.2	N	Erosion of natural deposits
Sodium (ppm)	3	2006	MNR	MNR	11.9	N	Erosion of natural deposits

Drinking Water Definitions and (Unit) Descriptions

MCLG: Maximum Contaminant Level Goal; the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

MCL: Maximum Contaminant Level; the highest level of a contaminant that is allowed in drinking water.

MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

TT: Treatment Technique; a required process to reduce the level of a contaminant in drinking water.

(NTU): nephelometric turbidity unit is a measure of the clarity of water.

(pCi/L): picocuries per liter is a measure of the radioactivity in water.

(ppm): parts per million **(ppb)**: parts per billion **(NA)**: not applicable **(MNR)**: monitoring not required

Source: Monitoring results are for three water sources and the distribution system as a whole noted as 1, 2, 3 and D accordingly.

Some of the data, though representative, are more than one year old because the state allows us to monitor for some contaminants less than once a year because concentrations of these contaminants do not change frequently.

For more information regarding this report on the Boonsboro/Keedysville Water System, please contact the Town of Boonsboro at 301-432-5141 or visit www.epa.gov/safewater/