

Wise County Public Service Authority  
P.O. Box 3388  
WISE, VA 24293

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## **Annual Drinking Water Quality Report MILL CREEK WATER SYSTEM PWSID# 1195930**

**THE WISE COUNTY PSA PURCHASES WATER FOR YOUR SERVICE AREA FROM THE BOLD CAMP WATERWORKS (OWNED BY THE TOWN OF POUND) WHICH PURCHASES WATER FROM THE FLANNAGAN WATER AUTHORITY. IN COMPLYING WITH EPA REGULATIONS, WE ARE FURNISHING YOU WITH THIS REPORT.** (Information in this report contains data collected by both the Flannagan Water Authority and the Wise County PSA.

### **INTRODUCTION**

This Annual Drinking Water Quality Report for calendar year 2012 is designed to inform you about your drinking water quality. The Wise County PSA routinely monitors for constituents in your drinking water in accordance with Federal and State Laws. The table on the following pages show the results of our monitoring for the period of Jan. 1, 2012 to Dec. 31, 2012.

If you have questions about this report, want additional information about any aspect of your drinking water or want to know how to participate in decisions that may affect the quality of your drinking water, please contact: **Wise County Regional Water Treatment Plant at (276) 762-0159. Flannagan Water Plant - (276) 835-8629**

**The times and location of regularly scheduled WCPA board meetings are as follows:**

**DATE:** 2<sup>ND</sup> Tuesday of each month    **TIME:** 6:00 pm    **LOCATION:** Wise County PSA Office (276) 679-1520

### **GENERAL INFORMATION**

Drinking water, including bottled drinking 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 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 from human activity. Contaminants that may be present in source water include: (1) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. (2) 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. (3) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses. (4) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can, also come from gas stations, urban storm water runoff, and septic systems. (5) 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, EPA prescribes regulations, which limits the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which 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 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

### **SOURCE OF YOUR DRINKING WATER**

The source of your drinking water is surface water from John Flannagan Reservoir which is treated by the John Flannagan Regional Water Treatment Plant. The Virginia Department of Health and the John Flannagan Regional Water Treatment Plant conducted a source water assessment of our system during 2002. The John Flannagan Reservoir was determined to be of high susceptibility to contamination using the criteria developed by the state in its approved Source Water Assessment Program. The assessment report consists of maps showing the source water assessment area and an inventory of known land use activities of concern. The report is available by contacting Billy Hilton at the phone number given elsewhere in this drinking water quality report.

### **DEFINITIONS**

Contaminants in your drinking water are routinely monitored according to Federal and State regulations. The table on the next page shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2012. In the table and elsewhere in this report you will find many terms and abbreviations you might not be familiar with. The following definitions are provided to help you better understand these terms:

Maximum Contaminant Level, or 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, or 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.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

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

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

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

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

Maximum Residual Disinfectant Level Goal (MRDLG) – the level of 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.

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.

**WATER QUALITY RESULTS**

**Regulated Contaminants**

REGULATED CONTAMINANT	MCL	MCLG	RESULT	RANGE	VIOLATION YES/NO	DATE OF SAMPLE	TYPICAL SOURCE
Total Organic Carbon (ppm)	RAA <2.0	N/A	2.05	1.49–2.05	Y	2012	Naturally present in the environment.
Chlorine (ppm)	MRDL=4	MRDLG =4	0.88	0.3 – 1.0	N	2012	Water additive used to control microbes.
Nitrates (ppm)	10	10	0.41	N/A	N	2012	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks, sewage.
Barium (ppm)	2	2	0.028	N/A	N	2012	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	0.87	N/A	N	2012	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Haloacetic Acids (ppb)	60	N/A	43	29 - 38	N	2012	By product of drinking water disinfection.
Combined Radium (pCi/L)	5	0	0.6	N/A	N	2008	Erosion of natural deposits.
Alpha emitters (pCi/l)	15	0	0.5	N/A	N	2008	Erosion of natural deposits.
Total Trihalomethanes (ppb)	80	N/A	75	57 - 94	N	2012	By-product of drinking water chlorination.
Turbidity (NTU)	TT=1NTU/ ≤0.3 95% OF TIME	N/A	0.14 100%	N/A	N	2012	Soil runoff.

**Lead and Copper Contaminants**

Contaminant (units)	MCLG	Action Level	90 <sup>th</sup> Percentile	Date of Sample	# of Sample Sites Exceeding Action Level	Typical source of Contamination
Lead (ppb)	0	AL = 15	3	2010	0	Corrosion of household plumbing system; Erosion of natural deposits
Copper (ppm)	1.3	AL = 1.3	0.32	2010	0	Corrosion of household plumbing systems; Erosion of natural deposits

The water quality results in the above tables are from testing done in 2012. However, the state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

MCL's are set at very stringent levels by the U.S. Environmental Protection Agency. In developing the standards EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten-thousand to one-in-a-million chance of having the described health effect for other contaminants.

**VIOLATION INFORMATION**

Did any MCL or TT violations occur during the year?  Yes ( ) No

VIOLATION	EXPLANATION OF THE VIOLATION	LENGTH OF THE VIOLATION	STEPS TAKEN TO CORRECT THE VIOLATION	HEALTH EFFECT LANGUAGE
TT-Failure to remove required amounts of total organic carbon (TOC)	The TOC RAA exceeded 2.0 mg/L in the first quarter 2012. This was caused by inadequate TOC removal from August 2011 to December 2011.	1 quarter (Jan, Feb, Mar 2012)	Violation self-corrected when TOC concentrations in water coming into the treatment plant fell below 2.0 mg/L. Quarterly samples continue to be taken.	TOC has no health effects. However, TOC provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (TTHMs) and haloacetic acids (HAA5). Drinking water containing these byproducts in excess of an MCL may lead to adverse health effects, liver of kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer. Water served by the Bold Camp waterworks in 2012 did not have these byproducts in excess of an MCL.

Did any monitoring, reporting, or other violations occur during the year? ( ) Yes ( X ) No

If yes, an explanation of the violation, including potential adverse health effects and steps we are taking to correct the violation, is as follows:

**YOUR WATER SYSTEM DID NOT HAVE ANY OF THESE VIOLATIONS DURING THE YEAR OF 2012.**

### **ADDITIONAL HEALTH INFORMATION**

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Wise County Public Service Authority is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 15 to 30 seconds or until it becomes cold or reaches a steady temperature before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

### **What Does all this mean?**

We're proud that your drinking water exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents, as expected, have been detected. This is normal and the EPA has determined that your water **IS SAFE** at these levels.