

## **SOURCE OF YOUR DRINKING WATER ALSO INCLUDES WATER PURCHASED FROM FOOD PROCESSORS WATER COOP**

### **SOURCE WATER ASSESSMENT**

**The Town of Broadway with help from Virginia Rural Water Association finished a **Source Water Protection Plan** for the Town in 2010. A copy of the Plan can be seen at Broadway's Town office located at 116 Broadway Avenue. We have a couple of web sites you can also visit for more information about what everyone can do to help protect our water.**

**[www.vdh.state.va.us/drinkingwater/source/swpp.htm](http://www.vdh.state.va.us/drinkingwater/source/swpp.htm)**

**[www.nesc.wvu.edu/smart/](http://www.nesc.wvu.edu/smart/).**

### **QUALITY OF YOUR DRINKING WATER**

Your drinking water is routinely monitored according to Federal and State Regulations for a variety of contaminants. The tables that follow show the results of our monitoring for the period of January 1<sup>st</sup> through December 31<sup>st</sup>, 2012.

### **DEFINITIONS**

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:

*Non-detects (ND)* - lab analysis indicates that the contaminant is not present

*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.

*Parts per trillion (ppt) or Nanograms per liter (nanograms/l)* - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

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

*Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

*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 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.

*Variances and exemptions* - state or EPA permission not to meet an MCL or a treatment technique under certain conditions

**BDL- Below Detection Limit**

<b>Inorganic Contaminants</b>						
Contaminant / Unit of Measurement	MCLG	MCL	Level Found / Range	Violation	Date of Sample	Typical Source of Contamination
Nitrate ppm	10	10	Range: 0.39 to 1.01 Includes Food Processors Water	No	April to July 2012	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride ppm	4	4	Highest: 1.15 Range: 0.62 to 1.15	No	Daily	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Turbidity NTU	NA	TT = .03 Lowest monthly percent meeting <0.3 NTU – 100%	Highest: 0.119 Range: 0.05 to 0.119 NTU Includes Food Processors Water	No	Daily	Soil Runoff

**Micro Biological Contaminants**

Contaminant / Unit of Measurement	MCLG	MCL	Level Found / Range	Violation	Date of Sample	Typical Source of Contamination
Barium ppm	2	2	Range: 0.0537 to 0.026 Includes Food Processors Water	No	April and July 2012	Discharge from drilling wastes; discharge from metal refineries; erosion from natural deposits

**Radiological Contaminants**

Contaminant / Unit of Measurement	MCLG	MCL	Level Found / Range	Violation	Date of Sample	Typical Source of Contamination
Combined Radium pCi/L	0	5	Highest: 0.8 Range: .03 to 0.8 Includes Food Processors Water	No	January 2008 October 2009	Erosion of natural deposits
Alpha emitters pCi/L	0	15	Highest: 1.12 Range: 0.6 to 1.12 Includes Food Processors Water	No	January 2008 October 2009	Erosion of natural deposits
Gross Beta pCi/L	0	50	Highest: 4.1 Range: 2.5 to 4.1 Includes Food Processors Water	No	January 2008 October 2009	Decay of natural and man-made deposits
Lead ppb	0	AL= 15	7.0 (90 <sup>th</sup> percentile) Range: < ND to .0137 None of the twenty samples collected exceeded the AL. Town of Broadway	No	September 2011	Corrosion of household plumbing systems; Erosion of natural deposits
Copper ppm	1.3	AL=1.3	0.050 (90 <sup>th</sup> percentile) Range: < ND to 0.057 None of the twenty samples collected exceeded the AL. Town of Broadway	No	September 2011	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

Disinfection By-products						
Contaminant/Unit of Measurement	MCLG	MCL	Level Found	Violation	Date of Sample	Typical Source of Contamination
TTHM's (Total Trihalomethanes) ppb	0	80	Average: 28 Range: 7.48 to 50.5	No	Quarterly 2012	By-product of drinking water chlorination
Haloacetic acids (HAAs) ppb	NA	60	Average: 23 Range: 15.5 to 33.7	No	Quarterly 2012	By-product of drinking water chlorination
Disinfection By-Products Precursors						
Contaminant/Unit of Measurement	MCLG	MCL	Level Found	Violation	Date of Sample	Typical Source of Contamination
(TOCs) Total Organic Carbon ppb	NA	TT	Range: ND to 1.69 Includes Food Processors Water	No	Monthly 2012	Naturally present in the environment

The results in the table are from testing done in 2008 and 2011. 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, may be more than one year old.

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. The table lists only those contaminants that had some level of detection. Many other contaminants have been analyzed but were not present or were below the detection limits of the lab equipment.

Maximum Contaminant Levels (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 MCL's 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

NO Violations

### Lead Contaminants

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. We are 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 30 seconds to 2 minutes 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>.

Cryptosporidium Monitoring – Town of Broadway-- Cryptosporidium is a microbial pathogen found in surface water throughout the US. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates these organisms were not present in our source water. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.