

# *Annual Drinking Water Quality Report*

## *(Consumer Confidence Report)*

### TOWN OF DENDRON

#### **INTRODUCTION**

This Annual Drinking Water Quality Report for calendar year 2014 is designed to inform you about your drinking water quality. Our goal is to provide you with a safe and dependable supply of drinking water, and we want you to understand the efforts we make to protect your water supply. The quality of your drinking water must meet state and federal requirements administered by the Virginia Department of Health (VDH).

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:

Mayor Yvonne Pierce at (757) 267 - 2508

#### **GENERAL INFORMATION**

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity. Substances (referred to as contaminants) in source water may come from septic systems, discharges from domestic or industrial wastewater treatment facilities, agricultural and farming activities, urban stormwater runoff, residential uses, and many other types of activities. Water from surface sources is treated to make it drinkable while groundwater may or may not have any treatment.

The sources of drinking water (both tap water 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:

- **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 stormwater 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 stormwater runoff, and residential uses;
- **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 stormwater runoff, and septic systems;
- **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 limit 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.

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).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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(S) and TREATMENT OF YOUR DRINKING WATER**

The source of your drinking water is groundwater from two drilled wells located within the Town. The Town provides chlorination treatment for disinfection purposes.

VDH conducted a Source Water Assessment of the Town of Dendron Waterworks in 2002. The wells were 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, an inventory of known Land Use Activities and Potential Conduits to Groundwater, utilized at Land Use Activity sites in Zone 1 and documentation of any known contamination within the last five years, Susceptibility Explanation Chart, and Definitions of Key Terms. The report is available by contacting your waterworks system owner/operator at the phone number or address included in this 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>, 2013. 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.

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:

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

*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.

*Maximum Residual Disinfection 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 Disinfection Level Goal (MRDLG)* - the level of 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 contamination.

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

*N/A* - not applicable.

*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.

## WATER QUALITY RESULTS

Regulated Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Level Found	Range	Sample Date	Violation	Typical Source
Total Trihalomethanes (ppb)	N/A	80	5.6	N/A	2013	No	By-product of drinking water disinfection
Chlorine (ppm)	4	4	0.66	0.31 to 1.44	2014	No	Water additive used to control microbes
Gross Alpha pCi/L	0	15	0.4	N/A	2009	No	Erosion of natural deposits
Gross Beta pCi/L*	0	50*	3.2	N/A	2009	No	Decay of natural and man-made deposits
Combined radium pCi/L	0	5	0.3	N/A	2009	No	Erosion of natural deposits

\*The MCL for beta particles is 4 mREM/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

Lead and Copper	MCLG	AL	Level Found	Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Copper (ppm)	1.3	1.3	0.072	2013	0	No	Corrosion of household plumbing systems
Lead (ppb)	0	15	1.1	2013	0	No	Corrosion of household plumbing systems

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.

Most of the results in the table are from testing done in 2013. 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.

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.

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. The Town of Dendron 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>.

Some other constituents detected in your water:

*There is presently no established standard for sodium in drinking water. Water containing more than 270 mg/L of sodium should not be used as drinking water by those persons whose physician has placed them on*

*moderately restricted sodium diets. Water containing more than 20 mg/L should not be used as drinking water by those persons whose physician has placed them on severely restricted sodium diets. For informational purposes only, we wish to point out that the analysis of this sample, collected on 2/11/2014, indicates that your water system has a sodium content of 88 mg/L.*

**VIOLATION INFORMATION**

Did any Maximum Contaminant Level (MCL) or Treatment Technique (TT) violations occur during the year? **NO**

Did any monitoring, reporting, or other violations occur during the year? **NO**

This Drinking Water Quality Report was provided by:

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