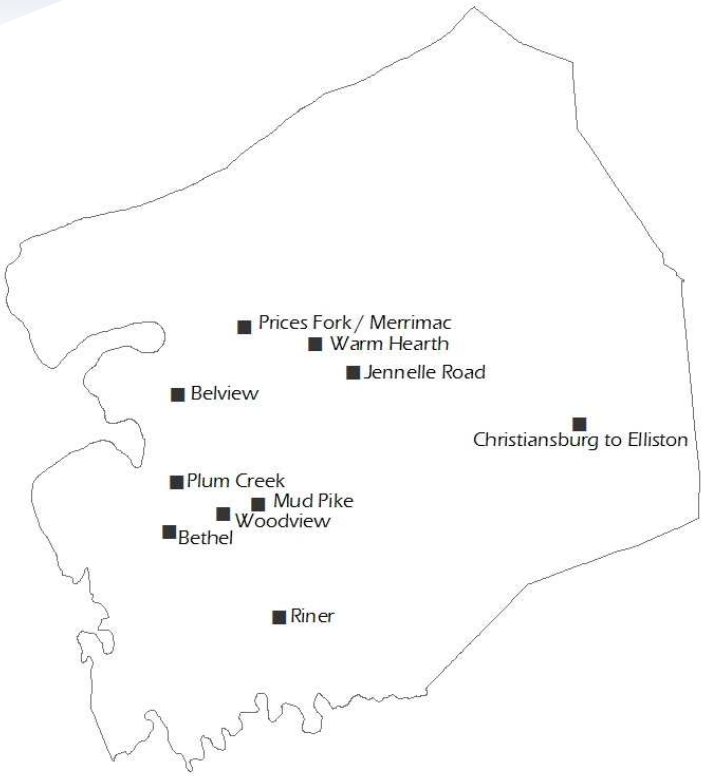
Christiansburg to Elliston

2007 Consumer Confidence Report

Quality on tap!



What's Inside

Introduction

This report is designed to inform you about your drinking water quality. Our goal is to provide a safe and dependable supply of drinking water. 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).

The Montgomery County Public Service Authority (PSA) operates ten individual public water systems in the unincorporated areas of the County. Combined, these systems consist of over 90 miles of water mains, four wells, 16 water tanks, 22 pumps, 23 pressure reducing valves, four connections to the Town of Blacksburg, three connections to the Town of Christiansburg, two connections to the City of Radford, and one connection to the Arsenal. Approximately 25.5 million gallons of water are distributed by the PSA monthly.

If you have questions about this report, please contact:

Don Todora
PSA Operations Specialist
(540) 381-1997

For additional information about any aspect of your drinking water or to learn how to participate in decisions that may affect the quality of your drinking water, please contact:

Bob Fronk
PSA Director
(540) 381-1997

PSA board meetings are held at 7:00 p.m. on the first Monday of each month in the Board of Supervisors' Meeting Room in the Montgomery County Government Center, 755 Roanoke Street in Christiansburg.

Our goal is to provide a safe and dependable supply of drinking water. We want you to understand the efforts we make to protect your water supply.

This and other important information are available on the PSA website: MontVA.com/psa

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. **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 along with **additional information can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791) or by visiting their website (www.epa.gov/safewater).**

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:

(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 stormwater 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 stormwater 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, the **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.

Sources and treatment of your drinking water

The ten water systems operated by the Public Service Authority include both surface water and groundwater sources. Three are supplied by the Town of Blacksburg: Warm Hearth, Belview, and Jennelle Road. Two are supplied by the Town of Christiansburg: Christiansburg to Elliston and Mudpike Road. Two are supplied by the City of Radford: Plum Creek and Bethel. Two are supplied by wells operated by the PSA: Riner and Woodview. The remaining system, Price's Fork/Merrimac, is supplied by the Arsenal with backup connections to the Town of Blacksburg and the Town of Christiansburg.

The New River is the surface water source supplying the systems connected to Blacksburg, Christiansburg, Radford, and the Arsenal. The raw water goes to either the Blacksburg-Christiansburg-VPI Water Authority Treatment Plant, the City of Radford Water Treatment Plant, or the Arsenal Potable Water Treatment Plant. **Treatment consists of chemical addition, coagulation, flocculation, settling, filtration and disinfection.** All these processes work together to remove the physical, chemical and biological contaminants to make the water safe for drinking. The New River was determined to be of high susceptibility to contamination using criteria developed by the State in its EPA approved Source Water Assessment Program. **The assessment report consists of maps showing the source water assessment area, an inventory of known land use activities of concern, and documentation of any known contamination within the last five years from the date of the assessment**. Treatment plants are operated to minimize threats associated with potential contamination of these water sources.

Treatment of the groundwater sources at the PSA's wells consist of the addition of chlorine to disinfect the water. Chlorine residuals and turbidities are checked on a daily basis at the wells and throughout all the individual distribution systems. Water storage tanks are checked at least three times weekly. **Source water assessments have been completed for the PSA's groundwater supplied systems: Riner and Woodview.** These wells have a high susceptibility to contamination due to migration of contaminants with land use activities of concern, potential conduits to groundwater and/or potential sources of contamination in the assessment areas. **There has been no known contamination of these sources within the last five years.** Source water assessments are available to view upon written request.

Christiansburg to Elliston

2007 water quality results of regulated contaminants

In the distribution system

Microbiological contaminants present

CONTAMINANT (units)	MCLG	MCL	LEVEL DETECTED	RANGE	VIOLATION	DATE OF SAMPLE	TYPICAL SOURCE OF CONTAMINANT
TOTAL ORGANIC CARBON (PPM)	N/A	TT, MET WHEN ≥ 1	1.07	1.0 to 1.20	NO	2007	Naturally present in the environment
TURBIDITY (NTU)	N/A	TT, 1 NTU MAX TT, < 0.3 (95% of the time)	0.09 100%	0.02 to 0.09	NO	2007	Soil runoff

Radioactive contaminants present

CONTAMINANT (units)	MCLG	MCL	LEVEL DETECTED	RANGE	COMPLIANCE	DATE OF SAMPLE	TYPICAL SOURCE OF CONTAMINATION
COMBINED RADIUM (PCi/L)	0	5	1.4	N/A	YES	2002	Erosion of natural deposits

Inorganic contaminants present

CONTAMINANT (units)	MCLG	MCL	LEVEL DETECTED	RANGE	COMPLIANCE	DATE OF SAMPLE	TYPICAL SOURCE OF CONTAMINATION
FLOURIDE (PPM)	4	4	0.76	N/A	YES	2007	Erosion of natural deposits, water additive which promotes strong teeth
NITRATE (PPM) NITRITE	10	10	0.72	N/A	YES	2007	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits

Volatile organic contaminants present

CONTAMINANT (units)	MCLG	MCL	LEVEL DETECTED	RANGE	VIOLATION	DATE OF SAMPLE	TYPICAL SOURCE OF CONTAMINATION
CHLORINE (PPM)	MRDLG=4	MRDLG=4	1.6	1.1 to 2.1	NO	2007	Water additive used to control microbes
HALOACETIC ACID (PPB)	N/A	60	48.7	15.5 to 60.1	NO	2007	By-product of drinking water disinfection
TOTAL TRIHALO-METHANES (PPB)	N/A	80	47.6	23.1 to 48.5	NO	2007	By-product of drinking water disinfection
CHLORITE (PPM) (daily)	0.8	1	0.38	0 to 0.38	NO	2007	By-product of drinking water Chlorination
CHLORITE (PPM) (monthly)	0.8	1	0.1	0 to 0.3	NO	2007	By-product of drinking water Chlorination
CHLORINE DIOXIDE (PPB)	800	800	150	0 to 150	NO	2007	Water additive used to control microbes

At the customer tap

Microbiological contaminants present

CONTAMINANT (units)	MCLG	MCL	LEVEL DETECTED	AFTER RE-SAMPLING	VIOLATION	SAMPLE MONTH	TYPICAL SOURCE OF CONTAMINATION
COLIFORM (# DETECTIONS)	0	1	1	0	NO	January	Naturally present in the environment

Inorganic contaminants present

CONTAMINANT (units)	MCLG	ACTION LEVEL	90TH PERCENTILE	# SITES EXCEEDING AL	COMPLIANCE	DATE OF SAMPLE	TYPICAL SOURCE OF CONTAMINATION
LEAD (PPB)	0	15	5.0	0	YES	2007	Corrosion of household plumbing
COPPER (PPM)	1.3	1.3	0.02	0	YES	2007	Corrosion of household plumbing

MCL VIOLATION INFORMATION

There were no violations during 2007.

ADDITIONAL INFORMATION

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 presented in the above tables, though accurate, is more than one year old.

The U.S. Environmental Protection Agency sets MCL's at very stringent levels. 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-a-million chance of having the described health effect for other contaminants.

Quality on Tap

Contaminants in your drinking water are routinely monitored according to Federal and State regulations. **The table on the previous page shows the results of our monitoring for the period of January 1st to December 31, 2007.** In the table, and elsewhere in this report, you will find many terms and abbreviations with which you might not be familiar. **The following definitions are provided to help you better understand these terms:**

ppm **mg/l**	**parts per million** **milligrams per liter**	One part per million corresponds to one minute in two years, or a single penny in $10,000.00.
ppb **µg/l**	**parts per billion** **micrograms per liter**	One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.00
MCLG	**Maximum Contaminant Level Goal**	the level of 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.
AL	**Action Level**	the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow
pCi/L	**Picocuries per liter**	a measure of the radioactivity in water
N/A	**Not Applicable**	abbreviation used in the "range" section
mrem/yr	**millirems per year**	a measure of radiation absorbed by the body
MRDLG	**Maximum Residual Disinfectant Level Goal**	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.
MRDL	**Maximum Residual Disinfectant Level**	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.
TT	**Treatment Technique**	a required process intended to reduce the level of a contaminant in drinking water
NTU	**Nephelometric Turbidity Unit**	a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

2007 CCR
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