



# Bedford County Public Service Authority

## 2010 Consumer Confidence Report

### 2010 Forest Central Water System

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**T**his Annual Drinking Water Quality Report for calendar year 2010 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.

#### Sources of your drinking water

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 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 use;
- Organic contaminants, including synthetic and volatile organic compounds, which are byproducts of

industrial processes and petroleum production; these can 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.

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.

The Bedford County Public Service Authority buys the water it provides you from the City of Lynchburg. The primary source of water is the 125-acre Pedlar Reservoir, located on approximately 500 acres; this water is transmitted to Lynchburg by gravity in a 21-mile pipeline from a pristine mountain location in Amherst. When additional water is needed, it is withdrawn from the James River. The City treats the water at two water treatment plants: the College Hill Filtration Plant, and the Abert Filtration Plant.

A source water assessment was conducted in 2002 by the Virginia Department of Health for College Hill Treatment Plant and Abert Treatment Plant. The reservoir and surface water source were determined to be highly susceptible to contamination, using the criteria developed by the state in its approved Source Water Assessment Program. The assessment is available upon request by contacting BCPSA.

**Visit the website**  
[www.bcpsa.com](http://www.bcpsa.com) and  
 click on the Water  
 Quality Link for  
 more information  
 pertaining to your  
 service area.  
 If you have any  
 questions about the  
 water quality report  
 please call our  
 Office at:  
 540-586-7679

## Frequently Asked Questions-Consumer Confidence Reports

**Q.** What is a consumer confidence report (CCR)?

**A.** The Consumer Confidence Report, or CCR, is an annual water quality report that a community water system is required to provide to its customers. The CCR helps people make informed choices about the water they drink. They let people know what contaminants if any, are in their drinking water, and how these contaminants may affect their health. CCRs also give the system a chance to tell customers what it takes to deliver safe drinking water.

**Q.** How do renters get water quality information about their drinking water?

**A.** A community water system must make a good faith effort to reach consumers who do not get water bills, such as renters or workers. An adequate good faith effort would include a mix of methods appropriate to the particular system such as: posting the reports on the Internet; mailing to postal patrons in metropolitan areas; advertising the availability of the report in the news media;

delivery of multiple copies for distribution by single-billed customers such as apartment buildings, nursing homes, schools or large private employers and community organizations.

**Q.** Why does the current CCR contain results from previous calendar years?

**A.** Federal regulations require that if a system is allowed to monitor for regulated contaminants less often than once a year, the table must include the date and results of the most recent sampling. Thus, the table in the CCR may reflect the date and result of the last samples taken.

**Q.** How is the average citizen supposed to interpret or use the data in the CCR or water quality report?

**A.** The presence of a particular ingredient does not mean that the water is unsafe to drink. However, if something is detected above the maximum level, the PWS must discuss the potential health effects, and actions taken to correct the problem.

## Definitions

**C**ontaminants in your drinking water are routinely monitored according to Federal and State regulations. The following table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup> 2010. 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:

**BDL:** Below detection level

**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.

**pCi/L:** picocuries per liter (a measurement of radiation).

**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.

**Treatment Technique or TT:** a required process intended to reduce the level of a contaminant in drinking water. We constantly monitor for various contaminants in the water supply to meet all regulatory requirements.

**Maximum Residual Disinfectant Level Goal or MRDLG:** the level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefit of the use of disinfectants to control microbial contaminants.

**Maximum Residual Disinfectant Level or MRDL:** the maximum level of a disinfectant allowed in drinking water.

There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Secondary Maximum Contaminant Level or SMCL:** the highest level recommended for a contaminant in drinking water, based on aesthetic consideration.

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

### Important Information about Lead and Copper:

**Lead (ppb)- Copper (ppm):** 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. Bedford 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>.

2010 Water Quality Data: Forest Central PWSID#5019315

2010 Contaminants for Spring 2011 CCR								
Constituents/ Unit of Measure	Violation	Level Detected		AL	MCLG	MCL	MDRL	Likely Source of Contamination
		Abert	College Hill					
<b>Inorganic Contaminants</b>								
Chlorine, ppm	NO	Range 0-2.06 Highest Average 1.17		---	---	---	4	Water additive to control microbes
Nitrate + Nitrite (as Nitrogen), ppm	NO	0.09	0.09	---	10	10	---	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Fluoride, ppm	NO	Average: 0.87 Range: 0.33-1.40	Average: 0.92 Range: 0.38-1.16	---	4	4	---	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Lead, ppb Results from 2009	NO	90 <sup>th</sup> percentile value=3 0 above action limit		15	0	---	---	Corrosion of household plumbing systems, erosion of natural deposits
Copper, ppm Results from 2009	NO	90 <sup>th</sup> percentile value=0.070 0 above action limit		1.3	1.3	---	---	Corrosion of household plumbing systems, erosion of natural deposits
Barium, ppm	NO	Abert 0.010	CH Not detected	---	2	2	---	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
<b>Microbiological Contaminants</b>								
Total coliform bacteria, Presence or absence	NO	1.2% of monthly samples positive (highest monthly average)		---	0	5% of monthly samples positive	---	Naturally present in the environment
Turbidity, NTU	NO	0.17 (highest level) 100% <0.3	0.24 (highest level) 100% <0.3	---	n/a	TT	---	Soil runoff
No single sample can be greater than 1 NTU. At least 95% of the samples taken every month must be less than 0.3 NTU								
<b>Volatile Organic Contaminants</b>								
Tribromomethanes (TTHM), ppb	NO	16-77 (range) 39 (highest average)		---	0	80	---	By-product of drinking water disinfection
Haloacetic Acids (HAA), ppb	NO	13-62 (range) 35 (highest average)		---	0	60	---	By-product of drinking water disinfection
<b>Radioactive Contaminants (Results from 2009)</b>								
Gross Alpha, pCi/L	NO	0.4(+/-)0.3	0.1(+/-)0.3	---	0	15	---	Erosion of natural deposits
Gross Beta, pCi/L	NO	2.5(+/-)0.8	0.9(+/-)0.7	---	0	50	---	Decay of natural and man-made deposits
Radium-228, pCi/L	NO	0.2(+/-)0.6	0.3(+/-)0.6	---	0	5	---	Erosion of natural deposits
<b>Disinfection By-Product Precursors</b>								
Total Organic Carbon (ppm) (TOC) Raw water, ppm	NO	Highest Avg.= 2.73 Range= 1.22-4.75	Highest Avg.=2.75 Range= 1.19-4.72	---	N/A	TT	---	Naturally present in the environment
Total Organic Carbon (ppm) (TOC) Treated, water ppm	NO	Highest Avg.= 1.48 Range= 0.73-2.91	Highest Avg.=1.35 Range= 0.83-2.53	---	N/A	TT	---	Naturally present in the environment
<b>Secondary Contaminants</b>								
Secondary Maximum Contaminant Levels (SMCL) are established only as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color and odor. These contaminants are not considered to present a risk to human health at the SMCL.								
Contaminant	SMCL	Abert	CH	Likely Sources				
Aluminum, ppb	200	88	71	Erosion of natural deposits; addition of water treatment substances				
Sodium, ppm	NA	3.65	4.24	Naturally present in the environment; addition of water treatment substances				
Sulfate, ppm	250	8.7	8.2	Naturally present in the environment; addition of water treatment substances				

**2010 Water Quality Data: Forest Central PWSID#5019315**

Constituents (Unit of measure)	Violation	Level Found (range)	AL	MCLG	MCL	Date of Sample	Typical Source of Contamination
<b>The following data was collected by the Bedford County PSA</b>							
<b>Microbiological Contaminants</b>							
Total Coliform Bacteria, (Presence or absence)	Yes	4 samples (n/a)	—	0	5% positive sample per month	July 2010	Coliforms are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present.
<b>Volatile Organic Contaminants</b>							
TTHM (ppb) Trihalomethanes	No	39 average (14-63)	—	0	80	Quarterly 2010	By-product of drinking water chlorination disinfection
HAA5 (ppb) Haloacetic Acids	No	46 average (28-70)	—	0	60	Quarterly 2010	By-product of drinking water chlorination disinfection
<b>Inorganic Contaminants</b>							
Lead (ppb)	No	90th percentile value = 3 Of 30 samples none were above AL	15	0	—	Sept. 2008	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	No	90th percentile value = 0.193 of 30 samples none were above AL	1.3	1.3	—	Sept. 2008	Corrosion of household plumbing systems; erosion of natural deposits
<p>The table lists only those contaminants which 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.</p> <p>MCL violation— In July 2010 our water system violated a drinking water standard. A letter was mailed on August 27, 2010 to inform you of the violation.</p>							

## Keep Your Family Safe

**S**ome people may be more vulnerable to contaminants in drinking water than the general population. People undergoing chemotherapy or living with HIV/AIDS, transplant patients, children and infants, the frail elderly, and pregnant women and their fetuses can be particularly at risk for infections. These people should seek advice about drinking water from their health care providers. The Environmental Protection Agency (EPA) and the Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by microbial contaminants are available from the national Safe Drinking Water Hotline at (800)-426-4791.

Many customers wish to know if bottled water is safer than regular tap water. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled 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. Research repeatedly shows bottled water to be not safer than conventional tap water provided by public water systems in the United States.

More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800)-426-4791 or online at [www.EPA.gov/OGWDW](http://www.EPA.gov/OGWDW). For a survey of bottled water companies, contact the National Resources Defense Council at 212-727-2700, or visit their Web site: <http://www.nrdc.org/>.

## For more information about this report...

**T**hank you for allowing us to continue providing your family with clean, quality water this year. The staff at Bedford County Public Service Authority work diligently to provide the best water quality possible to every tap. Our staff is constantly being trained on new technologies, safety issues, customer service issues and other related items to assist us in achieving our goal of providing the highest quality water and the best customer service possible. We ask that our customers help us to protect our water sources, which are the heart of our community, our way of life and our children's future.

The time and location of regularly scheduled board meetings are the third Tuesday of every month at 7:00 PM in the Bedford County PSA Board Meeting Room located at our offices at 1723 Falling Creek Road in Bedford.

If you have questions about this

report or need any additional information about any aspect of your drinking water or want to participate in decisions that may affect the quality of your drinking water, please contact the **Bedford County Public Service Authority** at (540)-586-7679. Any other questions you may have concerning your water quality may be addressed via E-mail at [customerservice@bcpsa.com](mailto:customerservice@bcpsa.com).



**Bedford County Public Service Authority**  
1723 Falling Creek Road  
Bedford, Virginia 24523

Visit our Website at [www.bcpsa.com](http://www.bcpsa.com) for additional information and services that are provided by the BCPSA. Phone: 540-586-7679 [customerservice@bcpsa.com](mailto:customerservice@bcpsa.com)

### **Mission Statement:**

As an independent Authority the Bedford County Public Service Authority exists to anticipate the needs of the County for clean, high quality, water and wastewater services. We shall strive to provide these services to the people of Bedford County, when and where economically possible, at rates that are reasonable and just.