

Pulaski County Public Service Authority

Brookmont Section, Mt. Olivet Section
& Schrader Hill Section

2005 Water Quality Report

INTRODUCTION

This Annual Drinking Water Quality Report for calendar year 2005 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 and 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:

Eddie Fisher, Water Treatment Plant Superintendent, at (540) 980-7749

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

**The 2nd Monday of every month,
9:00 am in the
Pulaski County Administration
143 Third Street, NW
Pulaski, VA 24301**

VIOLATION INFORMATION

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

The water quality results in table I are from testing done in 2005. 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.

MCLs 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 described health effects for other contaminants.

ADDITIONAL HEALTH INFORMATION

Certain contaminants (such as, arsenic, nitrate, and lead), if present in your drinking water, may be of special concern to consumers. Are any of those contaminants present at levels of concern that must be reported? () Yes (X) No

ADDITIONAL INFORMATION ABOUT YOUR WATERWORKS

The Town of Pulaski Water Treatment Plant is a class II facility, located at 911 Randolph Avenue in Pulaski. The plant is rated at 4.0 million gallons per day and current output is approximately 2.53 MGD. The plant is staffed by seven state-certified operators, one certified laboratory technician and one waterworks trainee. Their goal is to provide consumers with a safe and palatable supply of drinking water at the lowest possible cost and the highest level of quality in the industry. Delivering potable water to your tap is a team effort between licensed professionals at the plant and dedicated public work employees whose job is to maintain the water distribution system. They operate the plant and maintain the distribution system under the stringent regulatory guidelines of the Environmental Protection Agency, the Virginia Department of Health and the Virginia Department of Environmental Quality. They perform over 150 water quality analyses each day to insure consumers the highest quality drinking water available.

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).

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).

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 stormwater 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, 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 source(s) of your drinking water is (x) surface water ()
groundwater () groundwater under the direct influence of
surface water as described below:

The Pulaski County P.S.A. purchases water from the Town of Pulaski Water System to serve the Brookmont, Mt. Olivet and Schrader Hill Sections of Pulaski County. The sources of supply for the Town of Pulaski Water Treatment Plant are Gatewood and Hogan reservoirs and also Indian Grave creek, which combine to form Peak creek. These sources are located in Pulaski County. The Town of Pulaski has the ability to withdraw water from either, or both reservoirs depending on weather conditions, and consumer demand.

Is there any treatment of your drinking water supply?
(X) Yes () No. If yes, it is described below:

Raw water enters a flash mix basin, where lime is added for pH adjustment, and alum & polymer solutions are added as coagulants. Water leaves the mix basin and enters an upflow clarifier where the particles clump together and settle into a sludge blanket, the clarified water enters piping in the top of the clarifier and upon leaving the basin receives fluoride to prevent cavities and chlorine for disinfection. The water then enters four high rate filters that remove any remaining particles. After filtration the water enters the clearwell, soda ash is added for pH adjustment, and chlorine is added for final disinfection. Sodium polyphosphate is added here for sequestering of iron and manganese, before being distributed to consumers.

A source water assessment of our system was conducted in 2002 by Draper Aden and Associates. The creek we pull our water from 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, an inventory of known land use activities of concern, and documentation of any known contamination within the last 5 years. The report is available by contacting your water system operator at the phone number or address given elsewhere in this drinking water quality report.



WATER QUALITY RESULTS

Regulated Contaminants

Contaminant (units)	MCLG	MCL	Level Detected		Violation (Y/N)	Range		Date of Sample	Typical Source of Contamination
			Brookmont	Mt. Olivet Schrader Hill		Brookmont	Mt. Olivet Schrader Hill		
Chlorine (ppm)	MRDLG = 4	MRDL = 4	0.99	1.47	N	0.3 – 1.3	0.85 – 1.7	2005	Water additive used to control microbes
HAA5s [Haloacetic Acids] (ppb)	N/A	60	42	25	N	7 – 51	N/A	2005	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	N/A	80	76	34	N	36 – 80.8	N/A	2005	By-product of drinking water disinfection
Nitrate (ppm)	10	10	0.2		N	N/A		03/24/2005	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	4	4	0.4		N	N/A		03/24/2005	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Barium (ppm)	2	2	0.015		N	N/A		03/24/2005	Discharge from drilling wastes; discharge from metal refineries; erosion of natural deposits
Alpha Emitters (pCi/l)	0	15	ND		N	N/A		09/2003	Erosion of Natural Deposits
Combined Radium (pCi/l)	0	5	0.5		N	N/A		09/2003	Erosion of Natural Deposits
Total Organic Carbon	N/A	TT, met when ≥ 1	1.14		N	0.91 – 2.86		2005	Naturally present in the environment
Turbidity (NTU)	N/A	TT, 1 NTU Max	0.19		N	0.04 – 0.19		2005	Soil runoff
		TT, ± 0.3 NTU 95% of the time	100%		N	N/A			

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 1st to December 31st, 2005. 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 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.

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

ppb = Parts per billion.

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

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity, or cloudiness, of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is monitored because it is a good indicator of the effectiveness of our filtration system.

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 benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual disinfectant Level or 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.