CITY OF NORTON
P. O. BOX 618
NORTON, VA 24273

Annual Drinking Water Quality Report

City of Norton

PWSID# 1720076

INTRODUCTION

This Annual Drinking Water Quality Report for calendar year **2006** 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, please contact: **Tommy R. Roberts (276) 679-1205**

If you 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: **Ernie W. Ward (276) 679-1160**

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

Date: 1st and 3rd Tuesday of each month
Time: 7:30 PM
Location: City Hall at the council chambers
For additional information call (276) 679-1160

GENERAL INFORMATION

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.

SOURCE and TREATMENT OF YOUR DRINKING WATER

The source of your drinking water is surface water as described below:

Water is obtained from the City's (2) two reservoirs. The Norton Upper Reservoir has a capacity of 66 million gallons of water and the Norton Lower Reservoir has a capacity of 58 million gallons of water. We also purchase water from the Wise County Public Service Authority. Their source of water is the Clinch River, which is a surface water source.

The source water assessment of the City's reservoirs by the Virginia Department of Health completed September 28, 2001 determined that the reservoirs were highly susceptible to contamination using the criteria developed by the State's 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. The report is available by contacting your water system at the phone number or address given elsewhere in the drinking water quality report.

Your drinking water supply is treated as described below:

Treatment of the raw water consists of chemical addition, coagulation, flocculation, settling, filtration, and chlorinating. All of these processes work together to remove the physical, chemical, and biological contaminants to make the water safe for drinking.

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, 2006. 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 a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

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.

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.

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.

WATER QUALITY RESULTS

I. Regulated Contaminants

Contaminant (units)	MCLG	MCL	Level Detected	Range	Violation (Y/N)	Date of Sample	Typical Source of Contamination
Fluoride (ppm)	4	4	0.99	0.95-*1.03	N	2/21/06	Water additive which promotes strong teeth
Nitrate & Nitrite (ppm)	10	10	0.71	0.40-*1.02	N	2/21/06	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Turbidity (ntu) **	-	TT, 5 NTU max	0.32	*0.26-0.39	N	9/24/05	Soil runoff
		TT, ≤ 0.3 NTU 95% of the time	99%			2006	
Alpha emitters (pCi/l)	0	15	0.6	*0.6-0.6	N	4/19/04	Erosion of natural deposits

Contaminant (units)	MCLG	MCL	Level Detected	Range	Violation (Y/N)	Typical Source of Contamination
Chlorine (ppm)	4	4	1.10 *1.35	0.80 - 1.40 *0.40-2.30	N	Water additive used to control microbes
Haloacetic Acids (ppb)	N/A	60	3 *58	8 – 15 *15 - 88	N	By-Product of drinking water disinfection
Total Trihalomethane (ppb)	N/A	80	12.4 *81	<1.0 - 1.2 *19-62	N * Y	By Product of drinking water disinfection
Total Organic Carbon Removal Ratio	N/A	TT In compliance if ≥ 1.0	0.95 *0.69	0.3 – 1.3 *0.0-2.22	N	Naturally present in the environment

* Wise County PSA water quality results.
** Turbidity is tested every two hours when the water plant is in service, 7 days per week, 365 days per year.

II. Lead and Copper Contaminants

Contaminant (units)	MCLG	Action Level	Level Detected	Date of Sampling	# of Sampling Sites Exceeding Action Level	Typical Source of Contamination
Copper (ppm)	1.3	1.3	0.0090	9/26/05	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	0	15	0.020	9/26/05	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

VIOLATION INFORMATION

No MCL or TT violations occurred during the year.

The water quality results in table **I** are from testing done in 2006 and the results in table II are from testing done in 2005. 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.

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.

No monitoring, reporting, or other violations occurred during the year.

ADDITIONAL INFORMATION ABOUT YOUR WATERWORKS

What Does All This Mean?

As you can see by the table, our system had no violations. We're proud that your drinking water exceeds all **Federal** and **State** requirements. We have learned through our monitoring and testing that some constants, as expected, have been detected. This is normal and the EPA has determined that your water **IS SAFE** at these levels.

All drinking water, including bottled water, may reasonably be expected to contain at least a small amount of some contaminants. The presence of contaminants does not necessarily mean that the water poses a health risk. More information can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as people with cancer undergoing chemotheraphy, 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 1-800-426-4791.

Quality On Tap!

Our Commitment Our Profession

DID YOU KNOW?

The Water Treatment Plant operates 365 days per year, 24 hours per day.

The Water Treatment Plant staff analyzes over 60,000 water quality samples per year.