Town of Purcellville
130 East Main Street
Purcellville, VA 20132

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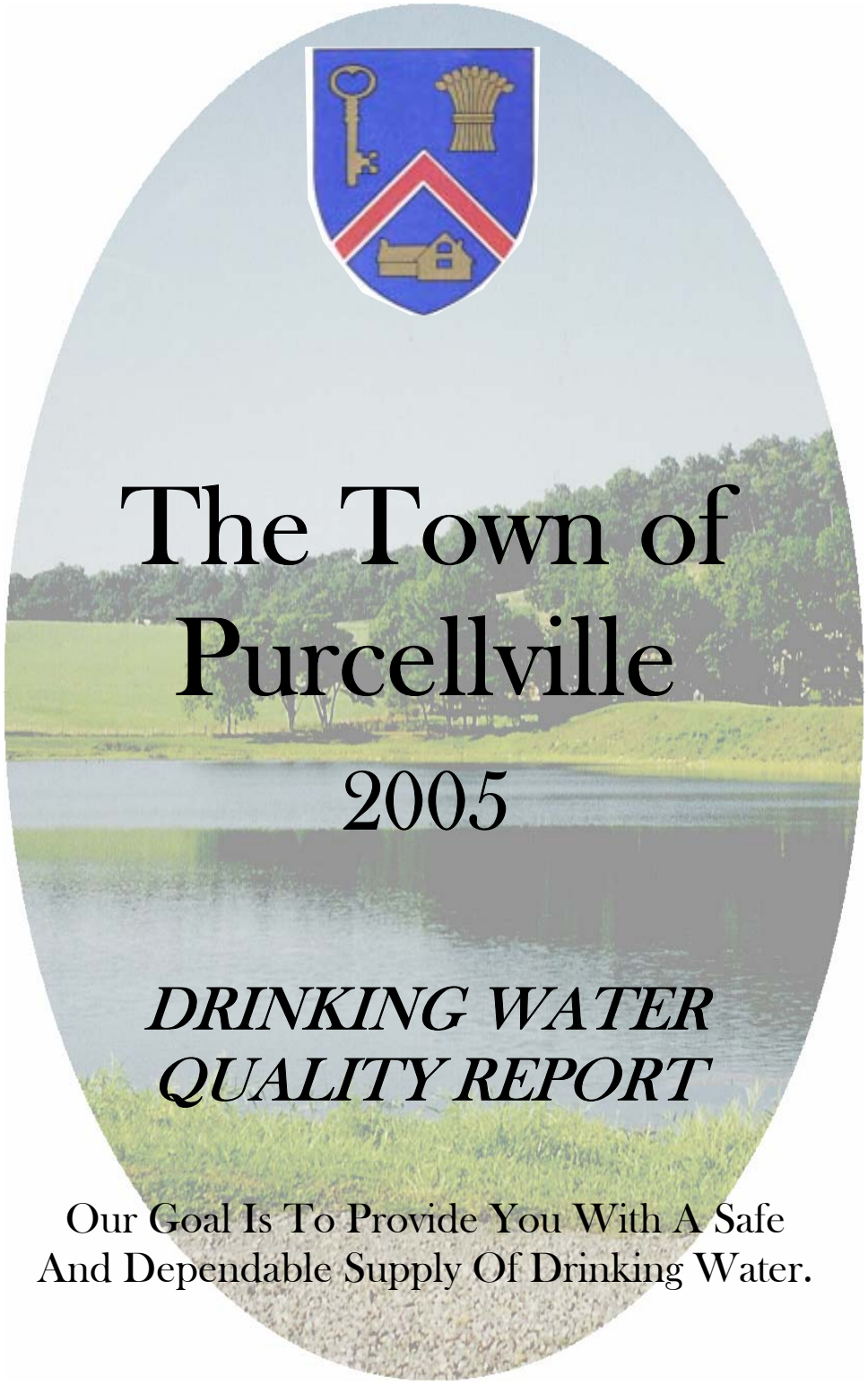


The Town of Purcellville

2005

DRINKING WATER QUALITY REPORT

Our Goal Is To Provide You With A Safe And Dependable Supply Of Drinking Water.

Town of Purcellville
Town Council

William T. Druhan, Jr., Mayor
Robert W. Lazaro, Jr.
Nicholas W. Pelchar
Karl R. Phillips
Thomas A. Priscilla, Jr.
Gregory W. Wagner
Christopher J. Walker, III

Town Manager

Robert W. Lohr, Jr.

Public Works Department

Karin Fellers
Director of Utilities/Town Engineer

Alex Vanegas
Superintendent
Water Treatment Plant

Category	Restrictions/Actions continued
Emergency Mandatory Water Restrictions	◆ Public/businesses are required to conserve. Penalties/sanctions are enforceable pursuant to Town Ordinance for failure to comply with restrictions as listed. ◆ Signs may be posted in public with notification of "Mandatory water restrictions in effect" and press releases will be issued to the media. ◆ Reservoir and wells will be monitored daily and reports generated weekly ◆ Mandatory Restrictions include: ◆ All Mandatory Restrictions listed for the Warning Level ◆ High water users, those that consistently use more than 1,000 gal/day, shall have prepared curtailment plans demonstrating how they shall respond to emergency situations and shall implement it (as provided in the Town Water Conservation and Curtailment Plan) ◆ No car washing or outside washing. Commercial carwashes will be permitted to operate if they can demonstrate that they recycle at least 50% of the water used during the car washing process. ◆ No lawn watering, including school ball fields. Limit watering to vegetable gardens and use gray water for water shrubs and plants. ◆ No "topping off" of swimming pools. Cover when not in use.

More ideas on water conservation can be found at www.wateruseitwisely.com

Category	Restrictions/Actions continued
Warning Voluntary Water Conservation and some Mandatory Restrictions	◆ Mandatory Restrictions include: (continued) ◆ Developers and/or residents will not be permitted to install seed or sod during the "Warning" level unless they have committed to providing regular lawn watering without Town water even after the establishment of the lawn for the duration of the Town being at Warning or Emergency Ordinance Levels. Drought bond is in an amount designated by the Fee Schedule. ◆ No use of non-potable water meters. (meters will be turned off) ◆ No community car washes. ◆ No watering of lawns on rainy days. ◆ Pool "topping off" should follow the odd/even day program listed above and pool should be covered when not in use. ◆ High water users, those that consistently use more than 1,000 gal/day, shall prepare curtailment plans demonstrating how they shall respond to emergency situations and present to Town. ◆ No use of any outside fountains, or decorative water structures. ◆ Requested Conservation elements include: No watering lawns, washing cars or other outside objects during Voluntary Water Restrictions. ◆ Restaurants/cafeteria/other food establishments shall provide water only by the patron's request. ◆ No use of fire hydrants except for health and public service use. ◆ No fire department training and no flushing of lines for development purposes unless determined necessary by Town Council or their representatives. ◆ Voluntary Restrictions include: ◆ Reduce or stop non-essential washing such as washing cars, homes, driveways, sidewalks, etc. ◆ Reduce or stop watering lawns ◆ Limit watering of bushes and other plants carefully and conservatively or use gray water ◆ Reduce other non-essential water uses as much as possible

Town of Purcellville
130 East Main Street
Purcellville, Virginia 20132

June 2006

Dear Water Customer:

The Town of Purcellville is committed to providing quality drinking water to its citizens. This report is the eighth annual water quality report and is intended to reassure you that your water is safe to drink. The U.S. Environmental Protection Agency (EPA) is authorized by Congress to enforce the Safe Drinking Water Act Amendments of 1996. The Amendments require all communities that provide water to their citizens to prepare and distribute a water quality report on an annual basis. The Virginia Department of Health has the responsibility for enforcing Federal Water Quality Standards in the Commonwealth of Virginia.

The reports are commonly called Consumer Confidence Reports and their purpose is to:

- Help consumers make informed decisions about their health
- Inform consumers about the source and delivery of their water
- Encourage dialogue between consumers and Town staff, and
- Allow consumers to be more involved in water system decisions.

Sincerely,

Karin Fellers
Director of Utilities / Town Engineer

2005 Drinking Water Quality Report
Purcellville Water System
PWSID # 6107600

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, or 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:

Karin Fellers
Director of Utilities/Town Engineer
Telephone: (540) 751-2313

Town Council meetings, which are open to the public, are the second Tuesday each month at 7:00 p.m. in the Town Office.

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) or their web site www.epa.gov/safewater. Another source of independent information about drinking water issues is the NSF International toll-free consumer hotline at 877-867-3435 or their web site at www.nsf.org.

Some people may be more vulnerable to contaminants in

Category	Restrictions/Actions
Normal Wise Water Use	◆ Public/businesses asked to use water wisely. ◆ Focus on Wise Water Use
Watch Voluntary Water Conservation	◆ Public/businesses asked to review their water usage and be aware of and limit high water use practices that needlessly waste water, e.g., over watering lawns, washing sidewalks, and driveways. If they haven't fully implemented the Wise Water Use Program, they are asked to do so. ◆ Residents are asked to water on even or odd days based on their address. If their address is an even number they should water on even numbered days of the month, if their address is odd, they should water on odd numbered days of the month. ◆ Daily and weekly water levels checked at the reservoir and monthly drought outlook. ◆ Emphasis on water conservation outside the home or office. ◆ Reminders about year round wise water uses.
Warning Voluntary Water Conservation and some Mandatory Restrictions	◆ Public/businesses should conserve water on both a voluntary and Mandatory Restriction basis. There are no penalties or sanctions for failure to follow the voluntary measures, however, if conditions worsen one or more of these measures could become mandatory and enforceable. The mandatory restrictions will be enforced if necessary. Signs may be posted in public locations with notification of "Voluntary and Mandatory water restrictions in effect" and press releases will be issued to the media. ◆ Reservoir and wells will be monitored daily and reports generated weekly ◆ Mandatory Restrictions include: ◆ Residents are required to water on even or odd days based on their address. If their address is an even number they should water on even numbered days of the month, if their address is odd, they should water on odd numbered days of the month.

WATER CURTAILMENT LEVEL	TRIGGERS
Normal Wise Water Use	◆ Water supply adequate to meet all demands (demand < 75% of capacity) ◆ NOAA drought index neutral to DO ◆ All Town Facilities operating within normal parameters
Watch Voluntary Water Conservation	◆ Level in Hirst Reservoir – Back lake draining to front lake 4.5 feet below normal pools and front lake full with no overflow ◆ All wells functioning properly at normal levels ◆ NOAA drought index D1, moderate drought ◆ Current demand between 75% and 85% of system capacity on average for a week ◆ Current demand requires the use of any Town water supplies above the safe yield capacity for more than two consecutive days ◆ Announce voluntary water conservation recommendations
Warning Voluntary Water Conservation and some Mandatory Restrictions	◆ Level in Hirst Reservoir – Back Lake draining to front lake 4.5 feet below normal pool and front lake 1.5 feet below spillway and/or some wells not functioning properly or with moderate draw-down ◆ Tank out of service for maintenance ◆ NOAA drought index D2, severe drought ◆ Current demand between 85% and 95% of system safe yield on average for a week ◆ Current demand requires the use of any Town water supplies above the safe yield capacity for more than two consecutive days.
Emergency Mandatory Water Restrictions	◆ Level in Hirst Reservoir – Back lake draining to front lake 4.5 feet below normal pools and front lake 3 feet below spillway ◆ One or more wells not functioning properly or with extreme draw-down ◆ Storage drawn below 65% of total capacity ◆ Major waterline break ◆ Current Demand at or above 95% of system safe yield on average for a week ◆ NOAA drought index D3, extreme drought, or greater

One inch of rainfall drops 7,000 gallons, or nearly 30 tons of water, on a 60' x 180' piece of land.

drinking water than the general population. Immuno-compromised persons such as those 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 storm-water 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 storm-water 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.

In a one-hundred year period, a water molecule spends 98 years in the ocean, 20 months as ice, about two weeks in lakes and rivers and less than a week in the atmosphere.

SOURCES AND TREATMENT OF YOUR DRINKING WATER

The sources of your drinking water are surface water and groundwater as described below (see graph on page 17 for yield):

1. Two springs known as the Harris Spring and Potts Spring, as well as some surface runoff, flow into the J. T. Hirst Reservoir. Cooper Spring is piped into the 12-inch pipeline just below the reservoir which carries water to the water treatment plant.
2. Cornwell Well, three Main Street Village (MSV) Wells, Village Case (VC) Well, and Hirst Farm Well are the groundwater sources.

The surface water and groundwater supplies are treated before entering the distribution system. A brief description of the treatment is provided below:

1. **Hirst Reservoir:** The water from the reservoir and Cooper Spring flows through a 12-inch pipeline to the water treatment plant. At the treatment plant, chemicals are added to facilitate removal of contaminants, which are then removed in the settling basins before passing through mixed media filters to remove smaller particles. Chlorine is added for disinfection and fluoride is added to promote strong teeth before the water is introduced to the distribution system.
2. **Well System in Suzanne R. Kane Nature Park:** The water

around a fire hydrant, dial 911. If we catch someone based on your call, you could get a $50 refund on your water and sewer bill!

KEEP IT COLD!

Did you ever use hot water out of your tap for making tea in order to speed up the process? Don't do it! Even though the water entering your home cold is of top quality and is safe for consumption, chemical processes triggered by the heating of the water can change and degrade the water quality for consumption purposes. It is completely safe to use for showering, bathing and cleaning, just don't drink it. So next time you want something hot to drink, take the extra minute to make coffee or tea from cold water and your water quality will be greatly improved.

WATER EMERGENCY ORDINANCE

A Water Conservation and Curtailment Plan has been developed and recently modified by the Town. The purpose of the Ordinance is to provide for the reduction and curtailment of water usage through voluntary and mandatory restrictions during drought conditions and other water supply emergencies. In 2005 the Town was forced into mandatory restrictions due to high demand, dry weather and several water breaks that further taxed the water system. The Town has revised the curtailment plan to include better defined triggers for entering different levels of water conservation. These triggers include levels of demand to the system that are close to the town capacity.

Any business or person who violates or fails to comply with any of the mandatory provisions of the current Ordinance can be charged with a class 3 misdemeanor. We are hopeful that the Town will not have to use this ordinance since we are connecting new wells to the system and are continuing our search for additional sources of water. Practicing water conservation at all times is a good way to conserve this precious resource. There are some good ideas on water conservation at the American Water Works Association web site at www.awwa.org/waterwiser.

The table on the next page outlines the triggers, categories and restrictions as they apply to the public and businesses:

Water Conservation & Other Information

The Town has developed many different brochures to help educate you about the Town's water supply. The Town believes education is a key to maintaining the integrity of our potable water supply. A Town of Purcellville welcome packet is provided to each new resident and within this folder we provide the following brochures. The brochures can also be picked up at any time at the Town office.

- Rain Barrels & Cisterns
- Watering Your Lawn
- Water Theft
- Water Saving Tips
- Centennial Reservoir
- Is Your Water Bill High?
- Save Water By Fixing Leaks Kit
- Hot Water Tank Flushing

Leaking Toilet

If you think you have a leak in your toilet please stop by the Town office and pick up the "Save Water By Fixing Leaks" kit. It includes two toilet tank leak detecting dye tablets. The two-toxic blue dye tablets in this kit give you a quick, easy way to check for leaks in your toilets.

Discolored Water

Discolored water is sometimes experienced by the water users of the system. The discolored water is from iron and manganese found naturally in the water that settles out in the lines. The discoloration occurs when there is a disturbance to the water system like a water theft or use of water for a fire. If you experience discolored water please call the office immediately. Knowledge of these incidents help us pinpoint the cause and hopefully reduce future incidents.

Water Theft

Water theft is an ongoing problem for the Town and can cause discolored water. If you notice any suspicious activity

from the two wells contains iron and manganese. The water is treated with potassium permanganate to oxidize the iron and manganese, which is subsequently removed through a greensand filter. Chlorine and fluoride is added for disinfection. This system is brand new and is expected to improve the iron and manganese removal of these wells.

3. **Main Street Village Well System:** The water from Main Street Village Wells and Village Case Well also contains iron and manganese. This water is also treated with potassium permanganate for oxidation of the iron and manganese, which is subsequently removed through a greensand filter and then goes through a granular carbon activated filter to remove volatile organic compounds and MTBE. Chlorine is added for disinfection and fluoride is added to promote strong teeth before the water is introduced to the distribution system.
4. **Hirst Well:** The water from Hirst Farm Well also contains iron and manganese. This water is also treated with potassium permanganate for oxidation of the iron and manganese, which is subsequently removed through a greensand filter. Chlorine and fluoride are added before the water is introduced to the distribution system.

A source water assessment of our system has been conducted by the Virginia Department of Health. All of the town wells were determined to have high susceptibility to contamination and J.T. Hirst Reservoir a moderate 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. Additional information is available by contacting your water system representative at the phone number or address given on page 4 of this drinking water quality report.

In response to the Public Health Security and Bioterrorism Preparedness and Response Act of 2002, the Town of Purcellville has plans to increase security measures at all our critical facilities. The protection of public infrastructure is an ongoing process and the Town takes this responsibility very seriously. The town is working

with security and engineering industry professionals to create a security system that is seamless to our core operations yet effective at protecting our system.

SYSTEM IMPROVEMENTS

The Town has completed the rebuilding of the Cornwell well system to improve treatment as well as increase capacity.

The Town is also pursuing permitting for a new reservoir. This reservoir is hoped to provide as much as 0.5 mgd of additional daily water capacity for the Town. The County Ordinances are under revision to permit the construction of the reservoir and the Town has issued a Joint Permit Application to the State for construction of the reservoir. The Town is also pursuing additional well sources and is working on replacement of several old water lines.

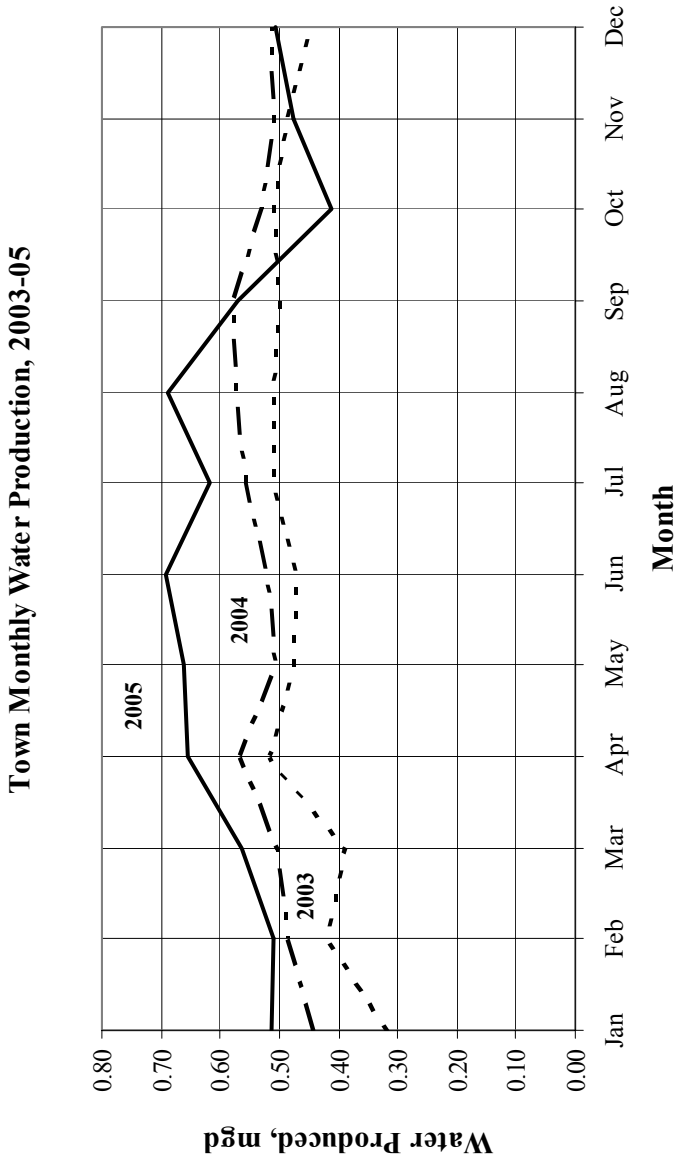
WATER AND SEWER RATES TO BE RAISED

The Town Council has been developing the Budget for the fiscal year 2006/2007. A specialty consultant was brought in to evaluate the rate structure approved last year and make recommendations.

Town Council is considering changing the water billing to a tiered rate structure. Under this type of billing the water rates will be lowest for the initial 6000 gallon block of water used and will increase for each additional block of water used. The tiered structure will encourage water conservation by rewarding lower water use with a lower water rate. It is expected that Town Council will set the water and sewer rates at their June 13 meeting. The first billing at the newly set rates will be for the period approximately July 15 to September 15, 2006. Once the rates have been set, the Town will distribute a flyer explaining the rate increases.

VIOLATION INFORMATION

The Town of Purcellville received a Notice of Violation in keeping with National Primary Drinking Water Regulations. We are required to monitor your drinking water for specific



Only 1% of the Earth's water is fresh water available for humans to drink (97% water is salt water, 2% is frozen).

2. Regulated Contaminants continued

Contaminant (units)	MCLG	MCL	Level Detected	Range	Violation (Y,N)	Date of Sample	Typical Source of Contamination
TTHMs [Total trihalomethanes] (ppb)	NA	80.0	31.0	nd-113.0	N	2005	By-product of drinking water chlorination
Total organic carbon [TOC] (ppm)	NA	TT	1.23	0.29-1.81	N	2005	Naturally present in the environment
Haloacetic acids (HAAs) (ppb)	NA	60.0	13.0	nd-42.0	N	2005	By-product of drinking water disinfection

Note 1: During the third quarter of 2005, we did not monitor for metals and inorganic chemicals at two of our groundwater entry points and therefore the health effects of not sampling are unknown.

3. Lead and Copper Contaminants

Contaminant (units)	MCLG	Action Level	Level Detected	Action Level Exceeded	# of Sites Exceeding AL	Date of Sampling	Typical Source of Contamination
Lead (ppb)	0	AL = 15	2	No	0	09/04/04	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	1.3	AL = 1.3	0.3	No	0	09/04/04	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During third quarter of 2005 we did not monitor for metals and inorganic chemicals at two of our groundwater entry points and therefore cannot be sure of the quality of our drinking water.

The Town has conducted additional monitoring since that time and found no unusual chemicals or levels. It is therefore likely that the water during the time of the missed sampling did not contain any unsuitable metals or organics.

There is nothing you need to do at this time.

We are attempting to prevent further violations by ensuring that all required sampling in our distribution system is done in accordance with the state drinking water regulations. Future violations will be reported as required by state regulations in order to increase consumers' awareness of conditions that exist in their public water system.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information please contact your water system representative at the phone number or address given on page 4 of the drinking water quality report.

WATER TESTING REQUIREMENTS

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. The tables list only those contaminants that were detected in at least one of our water sources. The sources were tested for many other contaminants but were not able to be detected by the testing.

Much of our water quality data is 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. Thus, some of our data, though representative, are more than one year old.

Maximum Contaminant Levels (MCL's) are set at very stringent levels by the U.S. Environmental Protection Agency (EPA). 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-ten-thousand to one-in-a-million chance of having the described health effect for other contaminants.

Regulated contaminants detected in the Town water are listed below and also listed in Tables 1-3 on pages 15-16.

- *Lead and Copper* were detected in the distribution system at very low levels when we conducted our tap monitoring during 2004. The levels detected did not exceed limits specified by the Virginia Department of Health. Lead and copper tap monitoring are scheduled for testing again in 2007 (See Table 3).
- *Turbidity* is a regulated contaminant (See Table 2). It is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The Town's levels stayed within the required limits during 2005.
- *Fluoride*, another regulated contaminant, was introduced for the promotion of strong teeth and was therefore detected at the Water Treatment Plant, Hirst Well, Village Case Well, and Main Street Wells (See Table 2).
- *Alpha emitters and combined radium* (regulated radiological contaminants) were detected at very low levels in 2003, the last time tested. Radiological contaminants are scheduled for testing again in 2008 (See Table 2).
- *Barium*, was detected at the Water Treatment Plant at very low levels during 2005, but the levels detected did not exceed limits specified by the Virginia Department of Health (See Table 2).
- *Total organic carbon (TOC)* is present in our water system. A

1. Microbiological Contaminants – No microbiological contaminants were detected in samples taken in 2005.

2. Regulated Contaminants

Contaminant (units)	MCLG	MCL	Level Detected	Range	Violation (Y.N)	Date of Sample	Typical Source of Contamination
Barium (ppm)	2	2	.019	nd - .019	N	06/15/05	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	MRDLG=4	MRDL=4	2.77	2.11-3.10	N	2005	Water additive used to control microbes
Turbidity (NTU)	NA	TT, 5 NTU Max TT, ≤ 0.3 (95% of time)	0.15 100%	NA	N	NA	Soil runoff
Fluoride (ppm)	4	4	1.50	0.60 – 1.50	N	11/27/05	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Alpha Emitters (pCi/L)	0	15	1.1	nd – 1.1	N	02/04/03	Erosion of natural deposits
Combined Radium (pCi/L)	0	5	1.0	nd – 1.0	N	03/22/03 06/10/03 10/06/03	Erosion of natural deposits

- *Maximum Contaminant Level (MCL) - the highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs (see definition below) as feasible using the best available treatment technology.*
- *Maximum Contaminant Level Goal (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 Disinfectant 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 Disinfectant 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 contaminants.*
- *Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment of other requirements which a water system must follow.*

Water Utilities monitor for more than 100 contaminants on a regular basis.

minimum TOC removal ratio is required, based on a running annual average of the monthly removal ratios. The running average for the Town waterworks is within the limit specified by the Virginia Department of Health (See Table 2).

- *Total trihalomethanes (TTHMs) and haloacetic acids (HAAs)* were detected in our water system at low levels during 2005. The levels detected were well below the MCL limits which are based on a 12-month running average (See Table 2).
- *Chlorine*, another regulated contaminant, was introduced to control microbes and was therefore detected in our distribution systems (See Table 2).
- No *microbiological contaminants* were detected during 2005. We are pleased to report to you that there were no detections of total coliforms or fecal coliforms in the monthly samples collected during calendar year 2005.
- Several other contaminants found (present in very low amounts) in the Town water are considered unregulated contaminants. Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants. The unregulated compounds present in the Town water are at very low concentrations and have not created concern by VDH.

ADDITIONAL HEALTH INFORMATION

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical

or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

Certain minerals are radioactive and may emit forms of radiation known as alpha or radium radiation. Some people who drink water containing alpha or radium emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Some people who drink water containing haloacetic acids (HAAs) in excess of the MCL over many years may have an increased risk of getting cancer.

Some people who drink water containing trihalomethanes in excess of the MCL over many years could experience problems

with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous systems effects, and may lead to an increased risk of getting cancer.

Additional information is available from the Safe Drinking Water Hotline and the EPA's drinking water web site mentioned earlier.

DEFINITIONS

Contaminants in your drinking water are routinely monitored according to Federal and State regulations. The Tables 1-3 on the next few pages show the results of our monitoring for the period January 1 to December 31, 2005. In the tables 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.

- *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 (µg/l) - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.*
- *Picocuries per liter (pCi/L) – picocuries per liter is a measure of the radioactivity in water.*
- *Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.*
- *Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in drinking water.*