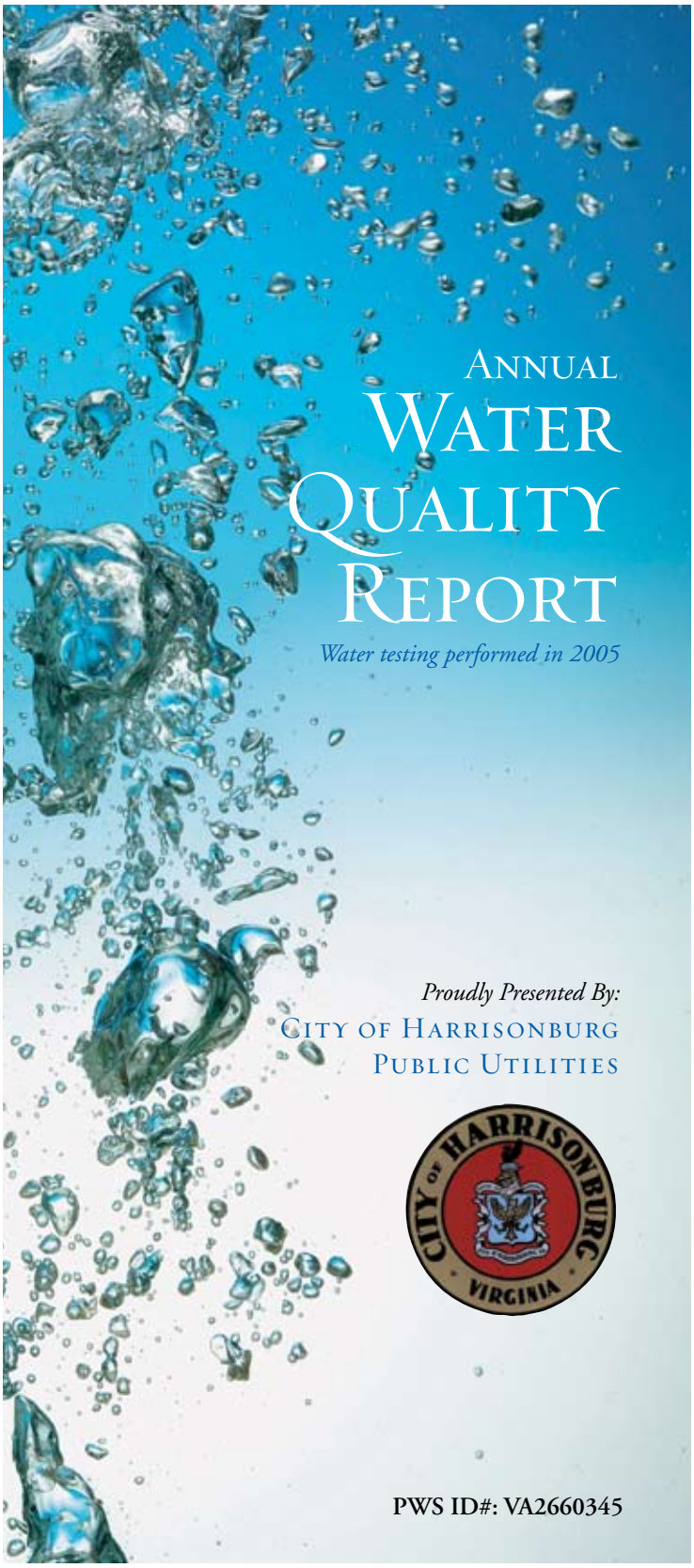


Annual Water Quality Report

Water testing performed in 2005

Proudly Presented By:

City of Harrisonburg
Public Utilities

PWS ID#: VA2660345

Continuing Our Commitment

This report is designed to provide you with valuable information about the quality of your drinking water. This edition covers all testing completed from January through December 2005. The quality of your drinking water meets all state and federal requirements administered by the Virginia Department of Health, Office of Drinking Water. The City of Harrisonburg is dedicated to providing 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. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

If you have questions about this report or want additional information about the quality of your drinking water, please contact our Director of Public Utilities, Michael Collins, at (540) 434-9959. You may see updates of this report on our Web site: www.harrisonburgva.gov

Hardness of Water

Most households are comfortable with a moderate water hardness level of 3.5 – 7 grains per gallon (gpg). Even though hardness preference varies from household to household and some consumers decide to install water softeners, the water should not contribute to skin dryness or force you to use an excessive amount of detergent or bleach for a load of clothes. As you can see from the table, the degree of hardness in our water is in the soft to moderate range.

Monthly Averages	Hardness (gpg)
Jan	2.40
Feb	3.51
Mar	1.93
Apr	2.22
May	2.34
Jun	3.45
Jul	2.87
Aug	3.39
Sep	5.73
Oct	4.97
Nov	4.39
Dec	2.52

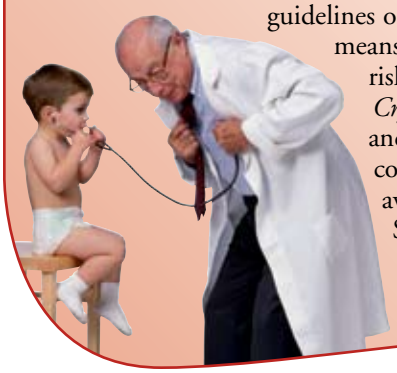
Excessive	> 10.5 gpg
Hard	7 - 10.5 gpg
Moderate	3.5 - 7 gpg
Soft	0 - 3.5 gpg

Source Water Assessment

A Source Water Assessment for the City of Harrisonburg was completed by the Virginia Department of Health on May 24, 2002. This assessment determined that the city's water sources, North River and Dry River, are surface waters exposed to a wide array of changing hydrologic, hydraulic, and atmospheric conditions. More specific information may be obtained by contacting the Harrisonburg Director of Public Utilities, Michael Collins, at (540) 434-9959.

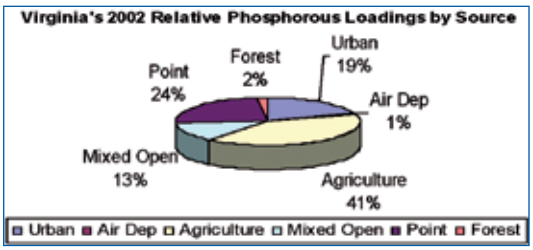
Important Health Information

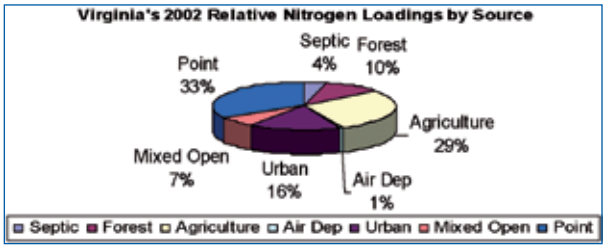
Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.



Harrisonburg Engages the Chesapeake Bay Restoration Effort

For years, state and local governments, advocacy groups and others have discussed the clean up of the Chesapeake Bay. To most of us the bay is nearly a three hour drive by vehicle; therefore, it might be difficult to understand that discharges of nitrogen and phosphorous from our area have impacted the Bay to such a level that we will incur significant increases to future sewer rates.





Most sewer treatment plants in the Chesapeake Bay watershed have been upgraded over the past years. The newest requirement to remove nitrogen and phosphorous expects these plants to again be upgraded, but to the "limits of technology". The requirements are the subject of litigation and regulation toward the "point source" group that includes sewage treatment plants. This group is not the only, or necessarily the most significant, contributor to the bay issue, but its probably the most readily available to attack. Strategies to address the other contributors are unclear at this time. The chart and graph define the contributors as itemized for 2002.

We are nearing the point where significant funds will be spent. Harrisonburg is a member of the Harrisonburg Rockingham Regional Sewer Authority (HRRSA) at which $16 million has already been spent to remove nitrogen and phosphorous. The plant is expected to face another upgrade of $34 million dollars to reach technology limits and $14 million dollars to increase the capacity. The Commonwealth of Virginia proposes to fund 60% of the ENR cost. Harrisonburg (60%), Rockingham County (20%), Dayton (12%), Bridgewater (8%), and Mount Crawford (<1%) will incur the remaining cost as members.

Harrisonburg can expect to spend $16 million toward the improvement. The funding will occur through long term borrowing, thus adding approximately $1.1 million per year of debt payments to the sewer enterprise fund finances. The current revenue stream through sewer and authority charges provides $5 million annually. An estimate of 20% projected increase to sewer rates is needed to fund the construction debt. Increases in HRRSA operations cost after the construction may add another 5 to 10%. Such an increase would add $4 per month to the rate shown in the Draper Aden Associates survey.

Market Analysis Of Water And Sewer Rates Among Water Systems Of 10,000-30,000 Equivalent Connections 5,000 Gallons Water And Sewer Consumption

Utility Provider	Equivalent Residential Connections	Water $/5000 Gal.	Sewer $/5000 Gal.	W&S Rate $/5000 Gal.
City of Williamsburg	14,000	$13.50	$10.15	$23.65
James City Service Authority	17,501	$11.50	$13.50	$25.00
City of Martinsville	12,000	$13.07	$13.25	$26.32
City of Harrisonburg	**20,619**	**$12.63**	**$14.52**	**$27.15**
Town of Leesburg	16,110	$14.68	$17.38	$32.06
City of Radford	12,349	$15.25	$19.50	$34.75
City of Danville	28,000	$16.55	$18.39	$34.94
City of Staunton	16,654	$14.71	$20.77	$35.48
Town of Blacksburg	13,333	$17.40	$19.53	$36.93
Western VA Water Auth.(Roanoke Co)	23,121	$20.75	$18.00	$38.75
Abermarle Co Service Auth.	16,760	$20.90	$18.70	$39.60
City of Winchester	25,970	$21.88	$19.55	$41.43
Town of Vienna	10,000	$19.32	$22.25	$41.57
Fredrick Co. Sanitation Auth.	19,316	$19.63	$23.63	$43.26
Hanover County	12,292	$14.46	$32.24	$46.70
Augusta Co. Service Auth.	16,352	$21.64	$28.74	$50.38
Town of Gate City	19,045	$33.00	$29.70	$62.70
Washington Co. Service Auth.	17,080	$26.20	$39.50	$65.70
Virginia Average	5,000 - 50,000	$19.52	$22.01	$41.53

Courtesy of Draper Aden Associates 2005 Study

Substances That Might Be in Drinking Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which 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 these contaminants does not necessarily indicate that the water poses a health risk.

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 can acquire naturally occurring minerals, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Contamination from Cross-Connections

Cross-connections that could contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems) or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. Our ordinances and operating policies require that all industrial, commercial, and institutional facilities in the service area make sure that all potential cross-connections are identified and eliminated or protected by a backflow preventer.

For more information, visit the Web site of the American Backflow Prevention Association for a discussion on current issues (www.abpa.org).

Community Participation

We encourage consumers to report all concerns regarding water quality. It is important that we recognize, investigate, and record each event. This information will be used to guide future operation strategies and capital improvements. Please report your concerns to (540) 434-9959, extension 112.

Where Does My Water Come From?

The City of Harrisonburg has two reliable water supply sources. The Dry River in Rawley Springs is a surface water source. The watershed includes the Switzer Reservoir Impoundment, which can supply the piping network at capacity with 4 million gallons per day (except during drought) of highest quality water at the most cost-effective price. The North River in Bridgewater is also a surface water source and provides up to 7.5 million gallons per day and 5.5 million gallons per day during drought. The water quantity and quality of the North River fluctuates due to runoff conditions at the withdrawal site. Because our treatment facility has the capacity to provide 15 million gallons of clean drinking water every day, we are in the process of developing a supply line from the South Fork Shenandoah River. Once this project has been completed, we expect to provide a supply of 15 million gallons per day to our customers.

Table Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

NA: Not applicable

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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

Sampling Results

We are pleased to report that during the past year, the water delivered to your home or business complied with, or did better than, all state and federal drinking water requirements. For your information, we have compiled the table below to show what substances were detected in our drinking water during 2005. Although all of the substances listed below are under the Maximum Contaminant Level (MCL) set by the U.S. EPA, we feel it is important that you know exactly what was detected and how much of the substance was present in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	MCLG	AMOUNT DETECTED	RANGE LOW–HIGH	VIOLATION	TYPICAL SOURCE
Alpha emitters (pCi/L)	2001	15	0	0.7	NA	No	Erosion of natural deposits
Beta/photon emitters (pCi/L)[1]	2001	50	0	1.8	NA	No	Decay of natural and manmade deposits
Combined radium (pCi/L)	2001	5	0	0.7	NA	No	Erosion of natural deposits
Fluoride (ppm)	2005	4	4	1.0	0.66-1.24	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
HAAs [Haloacetic Acids] (ppb)	2005	60	NA	24	6-39	No	By-product of drinking water disinfection
Nitrate (ppm)	2005	10	10	1.46	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Organic Carbon (ppb)	2005	TT	NA	1.08	NA	No	Naturally present in the environment
TTHMs [Total Trihalomethanes] (ppb)	2005	80	0	21	5-41	No	By-product of drinking water disinfection
Turbidity (NTU)[2]	2005	TT	NA	0.16	0.03-0.16	No	Soil runoff

Tap water samples were collected for lead and copper analyses from 32 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH%TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2004	1.3	1.3	0.08	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)[3]	2004	15	0	2	2	No	Corrosion of household plumbing systems; Erosion of natural deposits

[1] The MCL for beta/photon emitters is written as 4 mrem/year. The U.S. EPA considers 50 pCi/L as the level of concern for beta emitters.

[2] Turbidity 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. During the reporting year, 100% of all samples taken to measure turbidity met water quality standards.

[3] Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline at (800) 426-4791.