Dear Water Consumers,

Sustainability has become a popular word, but we've seen that no two people understand it in exactly the same way. Miriam-Webster's Dictionary defines sustainable as "*of, relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged.*" That hits pretty close to the intent of how we at Harrisonburg Public Utilities (HPU) run our operations. We must be set up to operate beyond our lifetimes and into the future, and we recognize three main components to meeting this goal; Environmental, Social and Economical.

First, we acknowledge the environmental impact of our operations. HPU measures our energy consumption relative to the water that we treat and deliver to our customers. We review our trends and find new ways to improve our efficiencies in our pumping stations and operations buildings. HPU also constantly monitors the in-stream flow at our raw water intakes to ensure aquatic protection.

We also seek to provide the level of service that our customers expect from their water and sewer utility. Most of us take for granted that the water will be there when we need it and that the sewer will take that used water away, but there are times when these systems fail. We strive to limit these failures through preventive maintenance and replacement of aging assets.

Finally, we know we must be careful about the cost. The best service in the world means nothing if our customers can't afford it. Fortunately, the City is in a position to provide the environmental stewardship and the reliability that our customers expect at a cost that is well below the state average utility rate. HPU's water and sewer rates have historically been very low compared to other localities in the state. To accomplish the goals above, we anticipate some increases in our rates, but with a plan to remain below what many others charge.

Our work is a constant balance of the environmental, social and economical impacts. If you'd like to learn more about how we do this, please give me a call or consider signing up for the City's hosted Citizen's Academy and get a personalized presentation of our operations. We're proud of what we do and would love to tell you about it.

David Gray | Deputy Director
dave.gray@harrisonburgva.gov
540-434-9959

Where Your Water Comes From

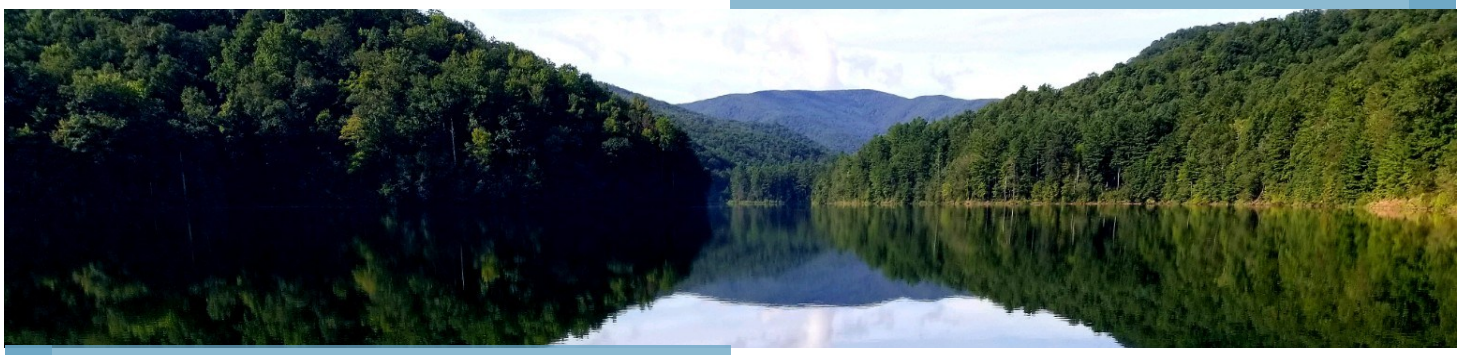
The City of Harrisonburg has two reliable water supply sources. The Dry River in Rawley Springs is a surface water source. The watershed includes the Switzer Reservoir Impoundment and delivers the highest quality water at the most cost-effective price. The North River in Bridgewater is also a surface water source. Approximately 50% of Harrisonburg's water comes from each source. Because of our commitment to long term economic sustainability and environmental stewardship, 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 reliable supply of over 15 million gallons per day to meet the growing need of our customers.

IT IS OUR MISSION TO PROVIDE

- reliable delivery of safe potable water that meets the Water Works Regulations, Virginia Administrative Code, Chapter 590,
- a quantity of water that will enhance fire suppression as determined according to ISO rating, and
- the conveyance of sanitary sewer service to our citizens in accordance to Sewage Collection and Treatment Regulations, Virginia Administrative Code, Chapter 790.

HEALTH INFORMATION FOR SPECIAL POPULATIONS

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 (800) 426-4791 or at www.epa.gov/drink/hotline.



SUBSTANCES THAT COULD BE IN 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 dissolves 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 the following.

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 & Herbicides**, which may come from a variety of sources, such as agriculture, urban storm water runoff and residential uses. **Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban storm water runoff and septic systems. **Radioactive Contaminants,** which can be naturally occurring or may be the result of oil and gas production and mining activities.

WATER SYSTEM FACTS

Population served	56,879
Treatment capacity (MGD)	13.1
Miles of sewer mains	186
Miles of water mains	299
Water distribution stations	14
Sewer pump stations	6
Storage tanks	12
Automated valve vaults	15
SCADA units	36
Water quality tests	1,326
Fire hydrants	1,972
Valves	4,521
Manholes	5,416
Water meters	16,517

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.

MGD: Million Gallons per Day.

MRDL (Maximum Residual Disinfection Level): 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.

MRDLG (Maximum Residual Disinfection Level Goal): The level of a 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.

NA: Not applicable

ND (Not Detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Unit): Measure of water clarity. Turbidity in excess of five NTUs is barely noticeable to the average person.

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

Ppm (parts per million) or mg/l (milligrams per liter): 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

Contaminants detected

January -December 2024

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected 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.

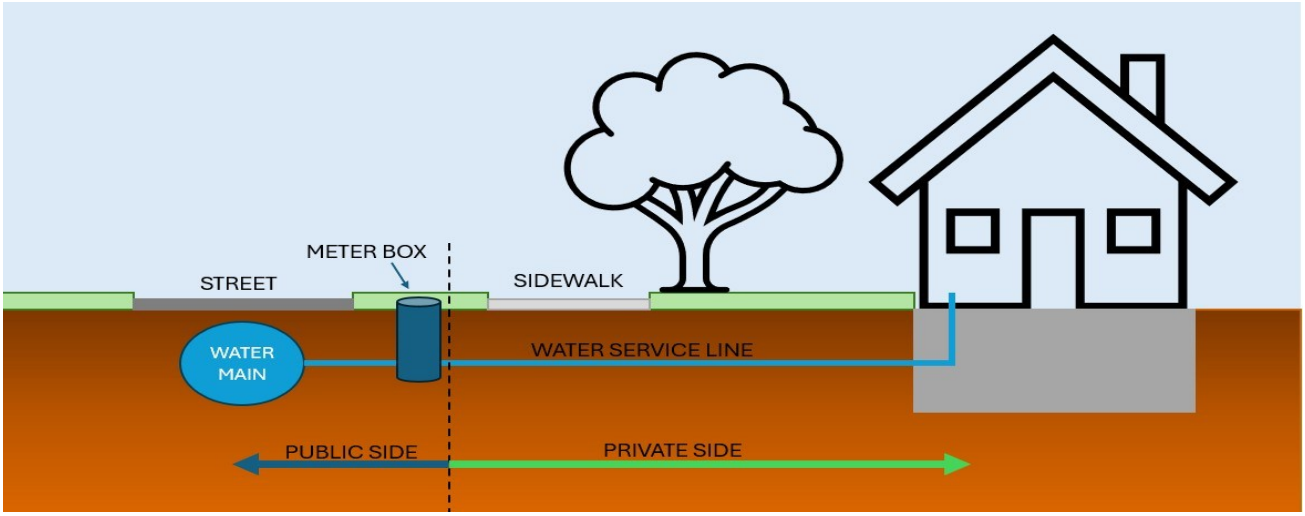
Regulated Substances							
Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected	Range Low-High	Violation	Typical Source
Barium (ppm)	2024	2	2	0.03	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Sodium (ppm)	2024	NA	NA	7.17	NA	No	Erosion of natural deposits; de-icing salt runoff; water softeners
Halo acetic Acids [HAA5](ppb)	2024	60	NA	34	11-45	No	By-product of drinking water disinfection
Nitrate + Nitrite (ppm)	2024	10	10	1.48	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2024	80	NA	47	11-70	No	By-product of drinking water disinfection
Chlorine (ppm)	2024	4	4	0.87	0.09-1.60	No	Water additive used to control microbes
Fluoride (mg/l)	2024	4	4	0.62	0.55-0.69	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from aluminum and fertilizer factories
Total Organic Carbon (removal percentage)	2024	TT	NA	NA	16%-20%	No	Naturally present in the environment
Turbidity[1] (NTU)	2024	TT	NA	NA	0.01-0.53	No	Soil Runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2024	<0.3 NTU	NA	99%	NA	No	Soil Runoff
Radiological							
Beta Emitters (mrem/yr)	2022	4	0	<0.51	NA	No	Decay of natural and man-made deposits
Alpha Emitters (pCi/l)	2022	15	0	< 0.36	NA	No	Erosion of natural deposits
Combined Radium (pCi/l)	2022	5	0	0.20	NA	No	Erosion of natural deposits

Lead and Copper Sampling							
Substance (Unit of Measure)	Year Sampled	AL	MCLG	Amount Detected (90th %tile)	Sites Above AL/Total Sites	Range	Violation	Typical Source
Copper[2] (mg/l)	2022	1.3	1.3	< 0.02	0/30	ND-0.03	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead[2] (ppb)	2022	15	0	< 2.0	0/30	ND-6.77	No	Corrosion of household plumbing systems; Erosion of natural deposits

1 Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.
2 Tap water samples were collected for lead and copper analyses from sample sites throughout the community.
HPU participated in UCMR5 sampling. All contaminants were measured below detectable limits. Data available upon request.

LEAD SERVICE LINE INFORMATION

Harrisonburg Public Utilities (HPU) continues to treat water in a way that will protect against lead from dissolving into your water under normal conditions. HPU is not aware of any lead service lines installed in the City, but we need your help to identify your service line material. Visit our website (www.harrisonburgva.gov/lead-service-line) to receive answers to frequently asked questions, check the status of your service line, and complete a self-identification survey to update the status.



Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.

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. The City Of Harrisonburg is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact the City of Harrisonburg at 540-434-9959. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

HARDNESS AND PH

Hardness Levels	
Classification	**Measured in mg/L**
Soft	0- 60
Moderately Hard	61-120
Hard	121-80
Very Hard	≥ 181

Water is soft when it falls as rain. It readily dissolves minerals as it travels through rock and soil. The treatment process removes some of the mineral content and impurities, but calcium and magnesium will generally not be removed. These minerals are not harmful to your health. See the chart for the measurement ranges used by the U.S. Geological Survey to classify hard and soft water.

In 2024, our water was **between 11 and 132 mg/l** with an average of **66 mg/l.**

pH Examples	
Substances	**Level**
Apple Juice	3.0
Orange	3.5
Coffee	5.5
Milk	6.2
Baking Soda	8.5
Soapy Water	10.0

pH is the measure of acid to base on a scale of 0 to 14. Water with values lower than 6 are acidic and can have taste problems such as a metallic or sour. Water with values greater than 8.5 is less corrosive to metal piping but efficiency with chlorine disinfection decreases.

While the ideal pH level of drinking water should be between 6-8.5, the human body maintains pH equilibrium on a constant basis and will not be affected by water consumption. For example our stomachs have a naturally low pH level of 2, which is a beneficial acidity that helps us with food digestion.

CITY OF HARRISONBURG PUBLIC UTILITIES
2155 BEERY ROAD, HARRISONBURG, VA 22801
(540) 434-9959
WATERSERVICE@HARRISONBURGVA.GOV

MARKET ANALYSIS OF WATER & SEWER RATES

Systems of 5,000-25,000 Residential Water Units with 5,000 Gallons per Month Water and Sewer Consumption courtesy of TRC 2024 Study.

As referenced previously, HPU is increasing rates to meet our sustainability goals, but we expect them to stay well below the statewide average.

UTILITY PROVIDER	RESIDENTIAL WATER UNITS	WATER $/5000 GAL	SEWER $/5000 GAL	W & S RATE $/5000 GAL
Rockingham County	5,417	$ 20.25	$ 30.50	$ 50.75
Harrisonburg , City of	**18,516**	**$ 21.05**	**$ 31.85**	**$ 52.90**
Danville, City of	17,682	$ 27.50	$ 29.95	$ 57.45
James City Service Authority	22,845	$ 45.62	$ 18.71	$ 64.33
Hanover County	21,738	$ 28.18	$ 54.63	$ 82.81
Henry County PSA	12,667	$ 34.70	$ 34.70	$ 69.40
Lynchburg, City of	21,000	$ 24.53	$ 60.63	$ 85.16
Manassas, City of	10,200*	$ 27.07	$ 59.25	$ 86.32
Campbell Co. Utility & Service Auth.	11,895	$ 41.62	$ 50.65	$ 92.27
Virginia Control Group Average**		$ 41.67	$ 52.77	**$ 94.44**
Christiansburg, Town of	10,111*	$ 53.00	$ 51.00	$ 104.00
Augusta Co. Service Authority	14,598	$ 39.72	$ 65.92	$ 105.64
Bedford Regional Water Authority	14,368	$ 61.50	$ 71.50	$ 133.00

*2023 data; 2024 data not reported

**For over 20 years, TRC's survey has tracked a select group compromised of twenty water and wastewater providers who represent a cross section of utilities across the Commonwealth.