

# *Welcome!*

## *Proposed Stormwater Utility Fee Open House Meetings*

*Hosted by the  
City of Harrisonburg's Stormwater Advisory Committee (SWAC)*



*November 12th  
5:30 PM - 7:30 PM  
at  
Thomas Harrison Middle School*

*and*

*December 2nd  
5:30 PM - 7:30 PM  
at  
Spotswood Elementary School*

# Why do we care?

Polluted runoff can have harmful effects on our lives. The Stormwater Utility Fee will be used for projects designed to capture, manage, and treat polluted runoff before it reaches our waterways.



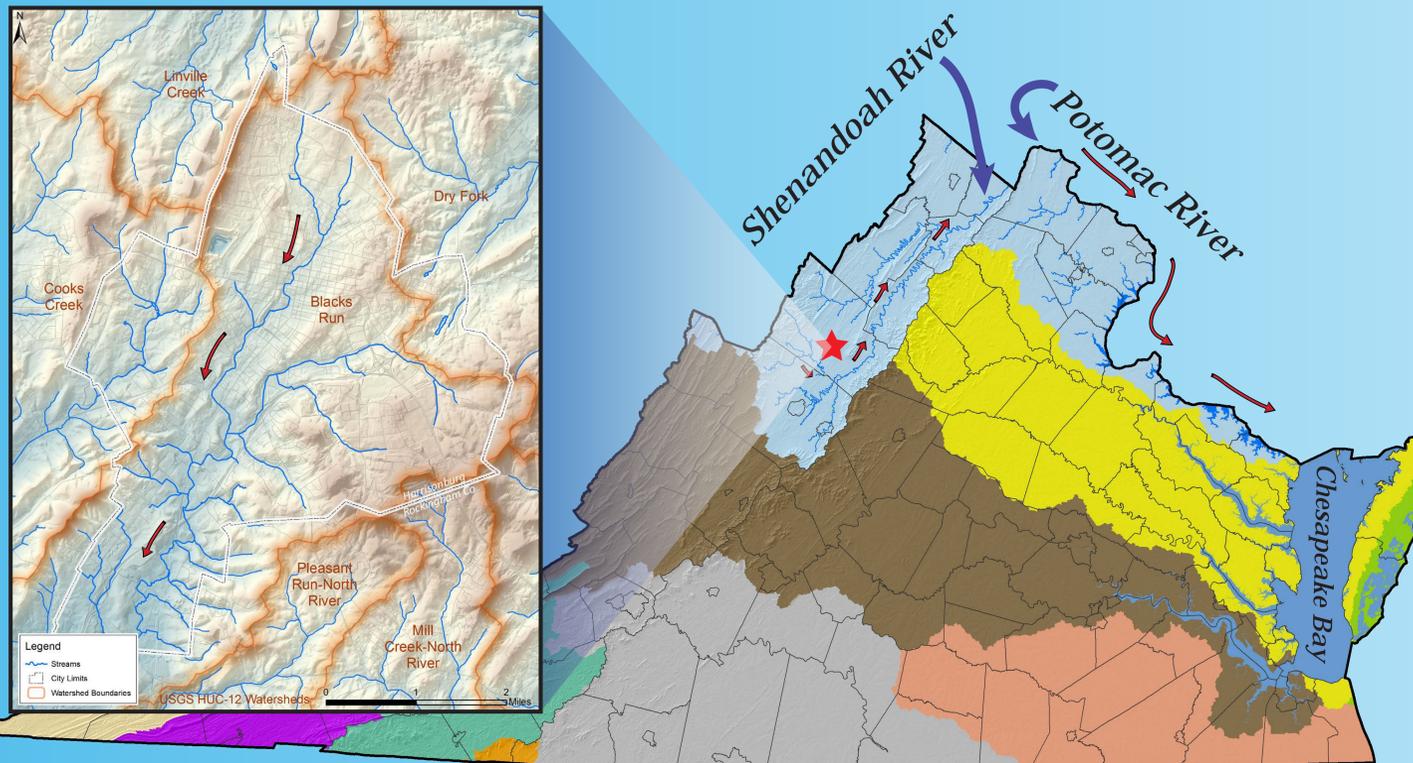
**Drinking Water:** Many communities pump and treat water out of rivers for drinking and depend on upstream neighbors like us to keep our stormwater runoff clean. The City of Harrisonburg is also constructing a waterline to pump future drinking water out of the South Fork of the Shenandoah River, which is downstream of us.



**Protecting Land and Infrastructure:** Too much stormwater runoff can cause flooding, erosion and loss of land. Streambank erosion can also damage man-made infrastructure leaving utilities (e.g. electric, gas, water and sewer lines) vulnerable to damage requiring costly repair.



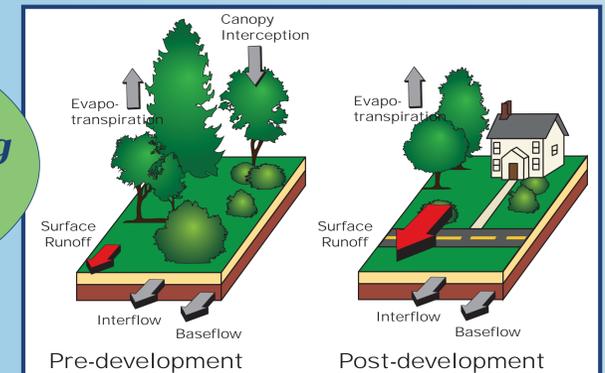
**Outdoor Recreation:** Many visitors come to the Shenandoah Valley to enjoy outdoor activities like fishing, boating, and swimming bringing tourism dollars to our community. Polluted runoff can make swimming unsafe, and can harm fish and wildlife.



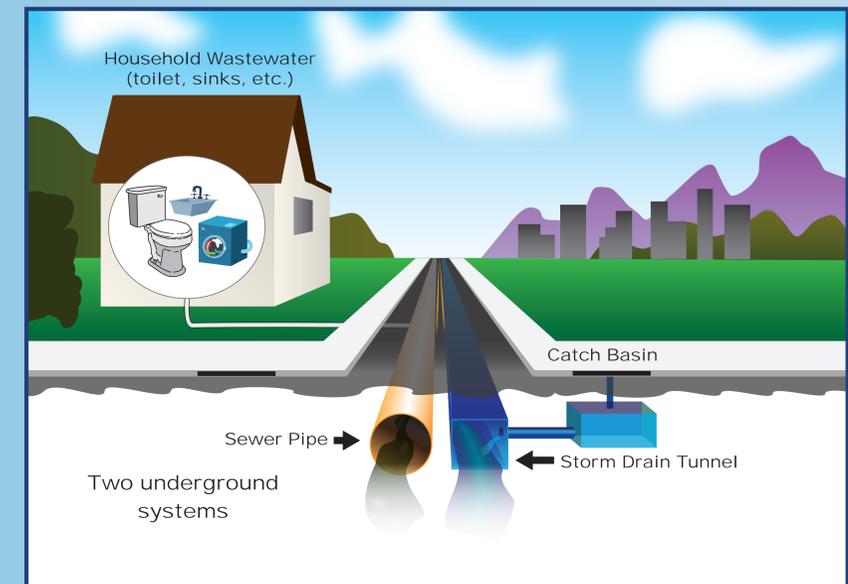
**Impervious Area:**  
Roofs, driveways, parking lots, streets, and other hard surfaces.

## What is Stormwater Runoff?

Stormwater runoff is the rain and snowmelt that flows over the ground and into the City's storm sewer system or directly into Blacks Run and other waterways. In undeveloped areas such as grasslands and forests, the surface flow of water is slowed by vegetation; some of the water then seeps into the ground. In urban areas, buildings, roads, parking lots, and other impervious surfaces do not allow for rain and snowmelt to soak into the ground. This results in faster flow of runoff. Stormwater runoff picks up pollutants such as oil, dirt, chemicals, and lawn fertilizers and carries them to Blacks Run and waterways, where they seriously harm water quality.



## Where Does Stormwater Runoff Go?



The City of Harrisonburg's storm sewer system is completely separate from the sanitary sewer system. The City's sanitary sewage flows through sanitary sewer pipes to the Harrisonburg-Rockingham Regional Sewer Authority's wastewater treatment plant located in Mt. Crawford, VA, while stormwater drains untreated directly into local surface waters like Blacks Run.

# What do we need to do?

Stop polluted runoff!

## Where do pollutants come from?



**Farming:** Improperly managed agricultural activities can contribute phosphorus, nitrogen, sediment, bacteria, and other pollutants into our waterways.



**Housing & Development:** Everyday activities can contribute to runoff pollution. Washing your car, fertilizing your lawn, painting your garage, or disposing of household products improperly can cause harmful chemicals to accumulate on paved surfaces. When it rains, these chemicals are washing down stormdrains and into our local waterways.



**Pesticides:** Improperly applied pesticides onto farmlands, gardens, and lawns are picked up by runoff and can harm plants and wildlife from our City all the way to the Chesapeake Bay.



**Construction Activities:** The primary stormwater pollutant from a construction site is sediment which, when deposited into waterways, can suffocate aquatic life.



**Fertilizers:** The same nutrients (phosphorus and nitrogen) that nourish crops and lawns can also cause rapid algae growth in our waterways killing aquatic life and vegetation.



**Pet Waste:** Dog feces can contain fecal coliform bacteria, which can spread diseases like Giardia, Salmonella, and Campylobacter and cause serious illness in people.

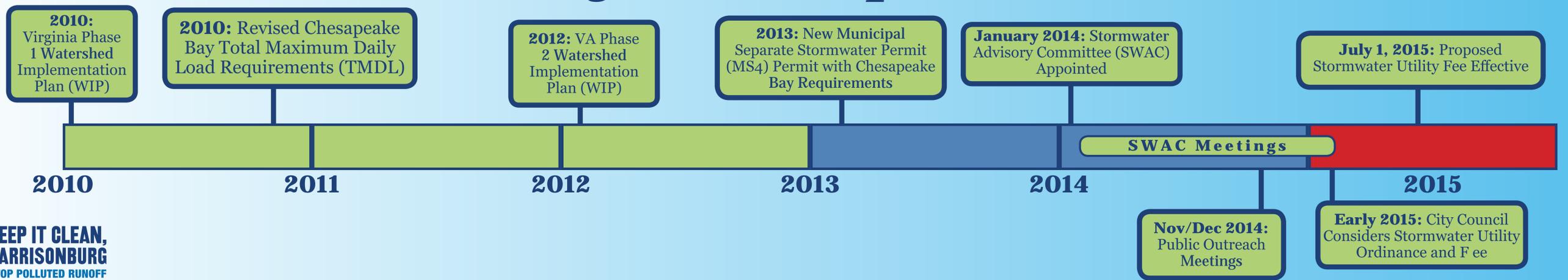
## Chesapeake Bay Pollutants

Pollutant	Estimated Pollutant Reductions Required per Permit Cycle (lbs/year)			TOTAL Estimated Pollutant Reductions Required (lbs/year) 2013 - 2028 (100%)
	1st 2013 - 2018 (5%)	2nd 2018 - 2023 (35%)	3rd 2023 - 2028 (60%)	
Nitrogen	434	3,038	5,208	8,679
Phosphorus	33	232	398	664
Total Suspended Solids	35,790	250,527	429,475	715,791

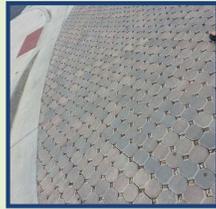
City's Total Area: 10,211 acres  
 City's Total Impervious Area: 4,200 acres  
 41% Impervious

Range of P removal costs = \$3.11 - \$70,342/lb TP

## Stormwater Management Implementation Timeline

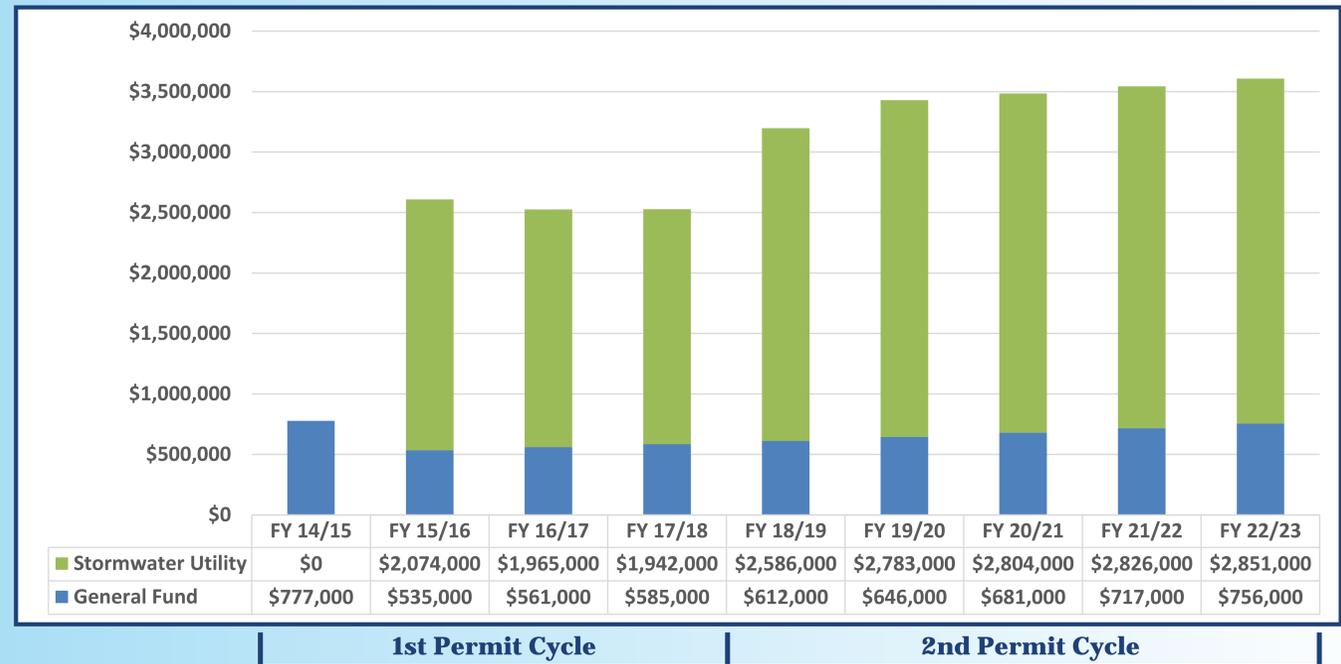


# How do we do it?



- Develop a city-wide Stormwater Improvement and Polluted Runoff Reduction Plan
- Design and construct stormwater capital projects to meet Chesapeake Bay Total Maximum Daily Load (TMDL) requirements
- Coordinate pollution reduction efforts, including a pollution detection and elimination program, pollution prevention and good housekeeping practices, and public education and outreach.
- Maintain and operate city-owned stormwater drainage and stormwater management facilities.

## Funds needed to reduce pollutants



# How do we fund it?

## Virginia Municipalities using Property Taxes

Stormwater Service Districts	Rate on Real Property	Population (2013)
Fairfax County	2 cents on property tax	1,116,897
Arlington County	1.3 cents on property tax	227,146
City of Alexandria	0.5 cents on property tax	151,218

## Funding Options

Property Tax/ General Fund	Stormwater Utility Fee
Not dedicated funding source.	Dedicated funding source to support stormwater management program.
Not equitable – property taxes are based on the assessed property value not contribution to stormwater runoff.	More equitable – property owners are charged a fee based on their contribution to stormwater runoff.
Tax-exempt properties don't pay real estate tax.	Charged to all properties.
No opportunity to reduce fees	Gives property owners the opportunity to reduce fees (credit system)
Lower implementation and administration cost.	Higher implementation and administration cost.

## Virginia Municipalities using Stormwater Utility Fees

Stormwater Utilities	Avg. Yearly Fee for residential home	Population
City of Virginia Beach	\$115.32	449,628
City of Portsmouth	\$111.00	96,871
City of Norfolk	\$106.92	246,392
City of Newport News	\$96.00	183,412
City of Chesapeake	\$88.20	232,977
City of Hampton	\$76.92	137,032
City of Harrisonburg	\$63.00*	51,395
City of Suffolk	\$62.88	87,831
City of Charlottesville	\$57.60*	46,623
City of Lynchburg	\$48.00	77,376
City of Richmond	\$45.00	211,172
City of Staunton	\$38.40	24,577
Prince William County	\$36.12	431,258
City of Colonial Heights	\$24.00	17,073
City of Roanoke	\$14.40*	98,913
Town of Bridgewater	\$12.00	5,879

\* converted to average yearly fee based on equivalent residential unit

# How is the Proposed Fee calculated?

**\$10.50 (Billing Rate Unit) Per Year for every 500 square feet of impervious area**

## How much will a typical single-family property owner pay?

**Impervious Area: 1,913 SF**

Proposed Annual Utility Fee:

Step 1: Divide the parcel's impervious area in square feet by 500 SF.

$$1913 \text{ sf} \div 500 \text{ sf} = 3.8$$

Step 2: Round the answer in step 1 to the nearest whole number.

3.8 rounded up is 4 billing units

Step 3: Multiply the whole number found in step 2 with the billing unit rate.

$$4 \times \$10.50 = \$42.00 \text{ per year (equivalent to } \$3.50 / \text{ month)}$$



**Impervious Area:  
Roofs, driveways,  
parking lots, streets, and  
other hard surfaces**

## How much will a typical downtown business pay?

**Impervious Area: 10,095 SF**

Proposed Annual Utility Fee:

Step 1: Divide the parcel's impervious area in square feet by 500 SF.

$$10,095 \text{ sf} \div 500 \text{ sf} = 20.2$$

Step 2: Round the answer in step 1 to the nearest whole number.

20.2 rounded down is 20 billing units

Step 3: Multiply the whole number found in step 2 with the billing unit rate.

$$20 \times \$10.50 = \$210.00 \text{ per year (equivalent to } \$17.50 / \text{ month)}$$



## How much will a typical 'big box' pay?

**Impervious Area: 534,860 SF**

Proposed Annual Utility Fee:

Step 1: Divide the parcel's impervious area in square feet by 500 SF.

$$534,860 \text{ sf} \div 500 \text{ sf} = 1069.7$$

Step 2: Round the answer in step 1 to the nearest whole number.

1069.7 rounded up is 1070 billing units

Step 3: Multiply the whole number found in step 2 with the billing unit rate.

$$1070 \times \$10.50 = \$11,235 \text{ per year (equivalent to } \$936.25 / \text{ month)}$$



## When and how will the fee be billed?

- Half of the annual fee will be billed twice a year with the real estate tax bill
- Sample bills will be available Spring 2015 for auditing

# How can I reduce my fee?

## Residential Examples

Stormwater Utility Fee  
Non-Residential Credit  
Manual

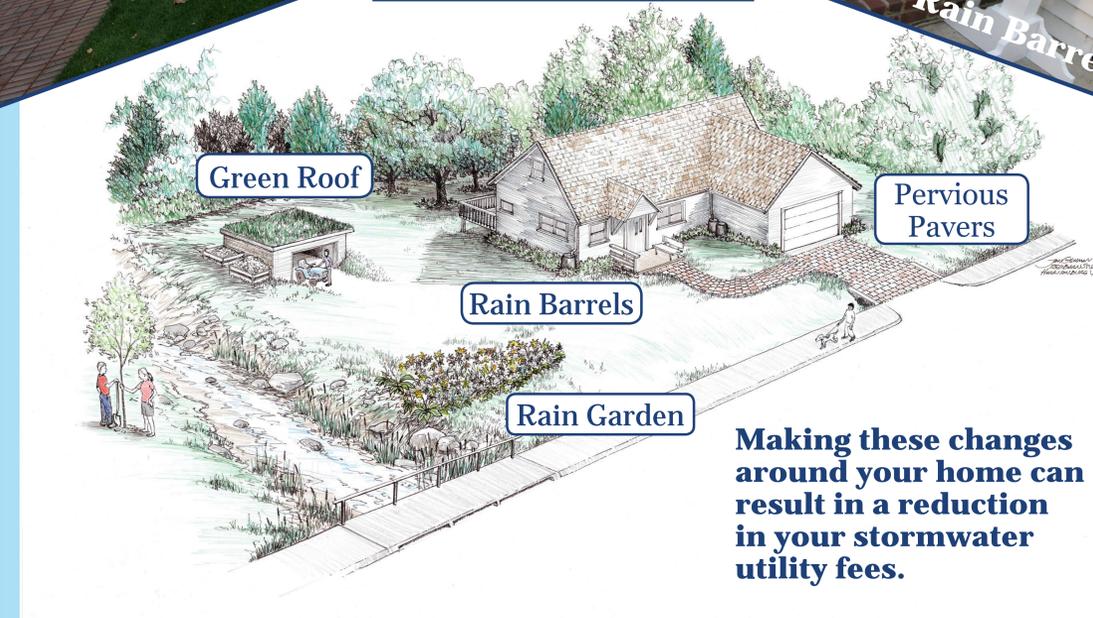
**KEEP IT CLEAN,  
HARRISONBURG**  
STOP POLLUTED RUNOFF

City of Harrisonburg, Virginia  
Department of Public Works  
320 East Mosby Road  
Harrisonburg, VA 22801  
540-434-5928  
www.harrisonburgva.gov/stormwater-utility

Stormwater Utility Fee  
Residential Credit Manual

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## Commercial Examples



**Manufactured Filter Unit**



**Grass Swale**



**Bioretention**



**Retention Pond**

## What else can I do?

Activities listed are not subject to Stormwater Utility Fee credit, but they are good for improving water quality.



**Plant a tree**



**Get your car washed at a retail car wash**



**Clean up your pets waste**



**Participate in the Blacks Run Clean Up day**

# What are the Next Steps?

**2014**

**November 12:**  
Public Comment  
Period Begins  
and First Open  
House



**December 2:**  
Second Open  
House



**December 3:**  
SWAC Meeting



**December 20:**  
Public Comment  
Period Ends

**2015**

**January 7:**  
SWAC Meeting



**February/  
March:** Council  
Meetings to Vote  
on Stormwater  
Utility Ordinance  
Fee



**Spring:** Application  
Period for Mapping  
Appeals & Credit  
Reductions



**October 1:**  
First Stormwater  
Utility Fee Bill  
Sent to Property  
Owners



**April 1, 2016:**  
Second Stormwater  
Utility Fee Bill Sent  
to Property Owners

More information available at:  
[www.harrisonburgva.gov/stormwater-utility](http://www.harrisonburgva.gov/stormwater-utility)