



CITY OF HOPEWELL

Hopewell, Virginia, 23860

AGENDA

PHONE: 541-2249

FAX: 541-2248

CITY COUNCIL

Michael C. Bujakowski, Mayor, Ward #3
Jasmine E. Gore, Vice Mayor, Ward #4
Christina J. Luman-Bailey, Councilor, Ward #1
Roosevelt Edwards, Jr., Councilor, Ward #2
K. Wayne Walton, Councilor, Ward #5
Brenda S. Pelham, Councilor, Ward #6
Jackie M. Shornak, Councilor, Ward #7

**SPECIAL MEETING
and
WORK SESSION
6:30 p.m.**

Automated Citizen Information System (ACIS)

541-2401 – Messages:

110 – City Council Meetings
111 – General City Council Information
112 – City Council Agenda
e-mail: info@hopewellva.gov
comes@hopewellva.gov
www.hopewellva.gov

Mark C. Haley, City Manager
David C. Fratarcangelo, City Attorney
Cynthia V. Ames, City Clerk

Date: September 23, 2014

MUNICIPAL BUILDING

**TIME: Special Meeting and
Work Session 6:30 p.m.**

6:30 p.m. Call to Order, roll call, and welcome to visitors.

CLOSED MEETING

Approve/Amend Agenda

Closed Meeting motion with topics and code section references to be provided at Council Meeting.

Action: roll call

7:30 p.m. Call to Order, roll call, and welcome to visitors

SPECIAL MEETING

Approve/Amend Agenda

UB-1. Unfinished Business – Ordinance 2014-15 - Sewer system revenue bonds

Action: adopt ordinance

**Motion: ADOPT ORDINANCE NO. 2014-15 ON SECOND READING,
AUTHORIZING THE ISSUANCE OF SEWER SYSTEM REVENUE BONDS OF
THE CITY OF HOPEWELL, VIRGINIA, IN THE MAXIMUM PRINCIPAL
AMOUNT OF \$10,000,000, THIS ORDINANCE SHALL TAKE EFFECT
IMMEDIATELY UPON ITS ADOPTION**

Roll call

- R-1. **Regular Business** – Budget Resolution Amendment Fiscal Year 2014-2015
Action: adopt resolution

MOTION: ADOPT BUDGET RESOLUTION AMENDMENT TO (A.) RE-APPROPRIATE FUNDS IN THE AMOUNT OF \$40,000 TO THE HOPEWELL DOWNTOWN PARTNERSHIP FUNDING FROM THE DOWNTOWN FACADE GRANT PROGRAM; AND (B.) APPROPRIATE FUNDS IN THE AMOUNT OF \$20,000 FOR ECONOMIC DEVELOPMENT ACTIVITIES FROM FUND - 075 ECONOMIC DEVELOPMENT FUND BALANCE; AND (C.) TO APPROPRIATE FUNDS IN THE AMOUNT OF \$25,000 FOR THE COUNCIL CHAMBERS AUDIO-VISUAL PROJECT FROM THE 011 GENERAL FUND BALANCE

Roll Call

- R- 2. **Regular Business** – Virginia Department of Transportation – resolution
Action: review and adopt

Motion: ADOPT RESOLUTION HUMMEL ROSS ROAD ECONOMIC DEVELOPMENT ACCESS PROGRAM GRANT REQUEST

Roll call

ADJOURNMENT

WORK SESSION

- WS-1. **Work Session** - Stormwater – presentation
Action: none needed
- WS-2. **Work Session** – Curb and Gutter – presentation
Action: none needed
- WS-3. **Work Session** – Love Signs – information
Action: none needed

ADJOURNMENT

CLOSED MEETING

SPECIAL MEETING

UNFINISHED BUSINESS

UB-1

ORDINANCE NO. 2014-15

**AN ORDINANCE AUTHORIZING THE ISSUANCE OF
SEWER SYSTEM REVENUE BONDS OF THE CITY OF
HOPEWELL, VIRGINIA, IN THE MAXIMUM PRINCIPAL
AMOUNT OF \$10,000,000**

**BE IT ORDAINED BY THE COUNCIL OF THE CITY OF HOPEWELL,
VIRGINIA, THAT:**

1. It is determined to be necessary and expedient for the City of Hopewell, Virginia (the "City"), to undertake certain additions, improvements and enhancements (the "Project") to the City's Regional Wastewater Treatment Facility (the "System") and to finance capital expenditures relating thereto by issuing the City's sewer system revenue bonds (the "Bonds").

2. Pursuant to the Constitution and statutes of the Commonwealth of Virginia, including the Public Finance Act of 1991, there are authorized to be issued the Bonds in the maximum principal amount of \$10,000,000 to provide funds, together with other available funds, to finance the Project and to pay the costs of issuing the Bonds.

3. The Bonds shall bear such date or dates, mature at such time or times not exceeding 40 years from their dates, bear interest at such rate or rates, be in such denominations and form, be executed in such manner and be sold at such time or times and in such manner as the Council of the City may hereafter provide by appropriate resolution or resolutions.

4. The Bonds shall be limited obligations of the City, and the principal thereof and premium, if any, and interest thereon shall be payable solely from certain revenues derived from the System.

5. The City Clerk, in collaboration with the City Attorney, is authorized and directed to see to the immediate filing of a certified copy of this Ordinance in the Circuit Court of the City of Hopewell, Virginia.

6. This Ordinance shall take effect immediately upon its adoption.

REGULAR BUSINESS

R-1

BUDGET RESOLUTION AMENDMENT
FISCAL YEAR 2014-2015

WHEREAS, at the special meeting of the City Council of the City of Hopewell held on September 23, 2014, an amended budget was introduced to re-appropriate and/or appropriate funds for the FY 2014-2015 budget to provide for operations and capital projects.

Part 1:

WHEREAS an amended budget to re-appropriated funds between capital projects for the FY 2014-2015 budget was introduced, and,

WHEREAS, sufficient funds exist in the respective capital project budget.

BE IT, HEREBY, RESOLVED by the Council of the City of Hopewell that:

Sec. 1 The following designated fund and accounts shall be re-appropriated for additional funding to the Hopewell Downtown Partnership Funding from the Downtown Façade Grant Program.

Capital Project Fund-071:

Resources:

Downtown Façade Grant Program \$40,000

Appropriations:

D/T Partnership Funding..... \$40,000

Part 2:

WHEREAS an amended budget to appropriate funds in the amount of \$20,000 for the Economic Development Authority from the Economic Development Fund balance for the FY 2014-2015 budget, was introduced and,

WHEREAS, sufficient funds exist in the respective fund balance reserve account.

BE IT, HEREBY, RESOLVED by the Council of the City of Hopewell that:

Sec. 1 The following designated funds and accounts shall be appropriated for Economic Development Activities from the 075 Economic Development Fund balance.

Economic Development Fund-075:

Resources:

Fund Balance..... \$20,000

Appropriations:

Operating Expenditures (EDA) \$20,000

Part 3:

WHEREAS an amended budget to appropriate funds in the amount of \$25,000 for the Council Chambers Audio-Visual Project from the General Fund balance for the FY 2014-2015 budget was introduced, and,

WHEREAS, sufficient funds exist in the respective fund balance reserve accounts.

BE IT, HEREBY, RESOLVED by the Council of the City of Hopewell that:

Sec. 1 The following designated fund and accounts shall be appropriated for the Council Chambers Audio-Visual Project from the 011 General Fund balance.

General Fund-011:

Resources:

Fund Balance..... \$25,000

Appropriations:

Capital Project Expenditures..... \$25,000

R-2

RESOLUTION

HUMMEL ROSS ROAD ECONOMIC DEVELOPMENT ACCESS PROGRAM GRANT REQUEST

At a special meeting of the City Council of the City of Hopewell held on September 23, 2014, on a motion by [REDACTED] [Name of Councilor], seconded by [REDACTED] [Name of Councilor], the following resolution was adopted by a vote of [] to []:

WHEREAS, the City of Hopewell desires to assist in the development of property for the purpose of economic development located off of Hummel Ross Road in the City of Hopewell, Virginia; and

WHEREAS, the Rock-Tenn Company has purchased property located in the City of Hopewell, Virginia and has entered into a firm contract to expand its facilities on that property for the purpose of producing liner board; and

WHEREAS, this new facility is expected to involve new private capital investment in land, building, and equipment of approximately \$100,000,000 and the Rock-Tenn Company is expected to employ [270] persons at this facility; and

WHEREAS, operations are expected to begin at this new facility on or about September 1, 2014; and

WHEREAS, the existing public road network does not provide for adequate access to this facility and it is deemed necessary that improvements be made to Hummel Ross Road ("Access Project"); and

WHEREAS, the City of Hopewell hereby guarantees that the necessary environmental analysis, mitigation, and fee simple right-of-way and utility relocations or adjustments for this Access Project, if necessary, will be provided at no cost to the Economic Development, Airport and Rail Access Fund; and

WHEREAS, the City of Hopewell acknowledges that no land disturbance activities may occur within the limits of the proposed Access Project prior to any construction activity on the Rock-Tenn expansion project as a condition of the use of the funding from the Economic Development, Airport and Rail Access Fund; and

WHEREAS, the City of Hopewell hereby guarantees that all ineligible project costs and all costs not justified by eligible capital outlay will be provided from sources other than those administered by the Virginia Department of Transportation.

NOW, THEREFORE, BE IT RESOLVED THAT: The Council of the City of Hopewell requests that the Commonwealth Transportation Board provide funding from the Economic Development Access Program Fund, for the costs associated with constructing an adequate roadway to the Rock-Tenn expansion site; and

BE IT FURTHER RESOLVED THAT: The City Manager and/or his designee(s) be authorized to act on behalf of the City of Hopewell to execute any and all documents necessary to secure the funding sought through the Economic Development Access Program up to, but not exceeding, \$250,000 in state funds.

BE IT FURTHER RESOLVED THAT: The Council of the City of Hopewell hereby acknowledges that the new roadway so constructed will be added to and become a part of the road system of the City of Hopewell pursuant to § 33.1-221(Repealed October 1, 2014) (*Funds for access roads to economic development sites and airports; construction, maintenance, etc., of such roads.*) and § 33.2-1509 (C). (Effective October 1, 2014), (*Funds for access roads to economic development sites and airports; construction, maintenance, etc., of such roads.*) of the Code of Virginia.

(SEAL)

A COPY TESTE: _____
Mayor

ADJOURNMENT

WORK SESSION

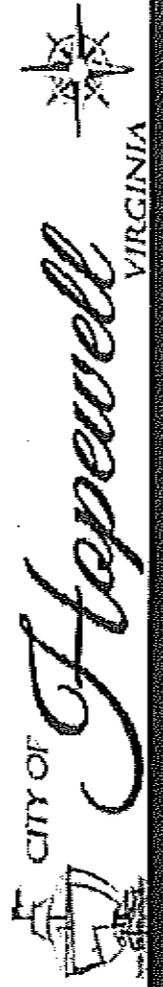
WS-1

City of Hopewell's Stormwater Program

Stormwater Utility How to Pay for Compliance

Department of Public Works

Benjamin C Leach
Stormwater Systems Engineer



What is Stormwater?

- Stormwater is precipitation from rain or snow that does not soak into the ground.
- An impervious surface area is considered driveways, parking lots, roads, sidewalks, streets and roofs that prevent stormwater from naturally soaking into the ground.
- Urban stormwater is the number one source of surface water pollution in the U.S. and causes public safety hazards, health risks and environmental threats.



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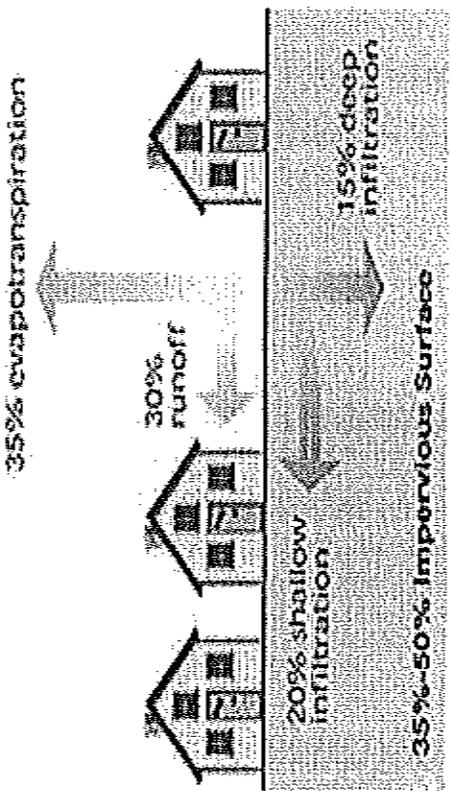
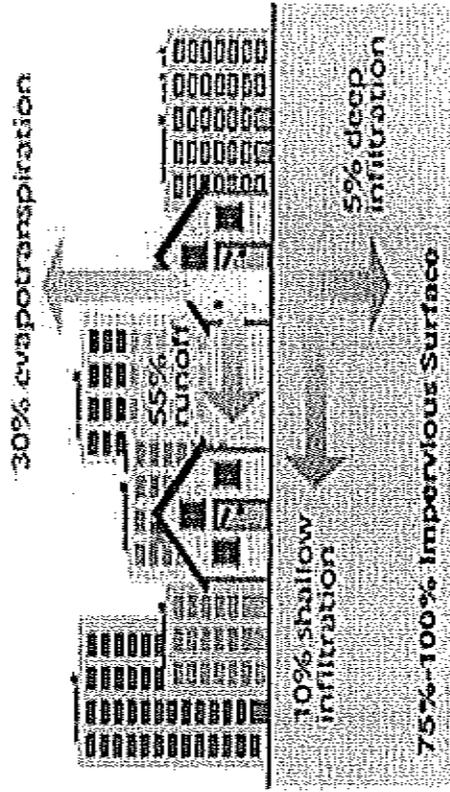
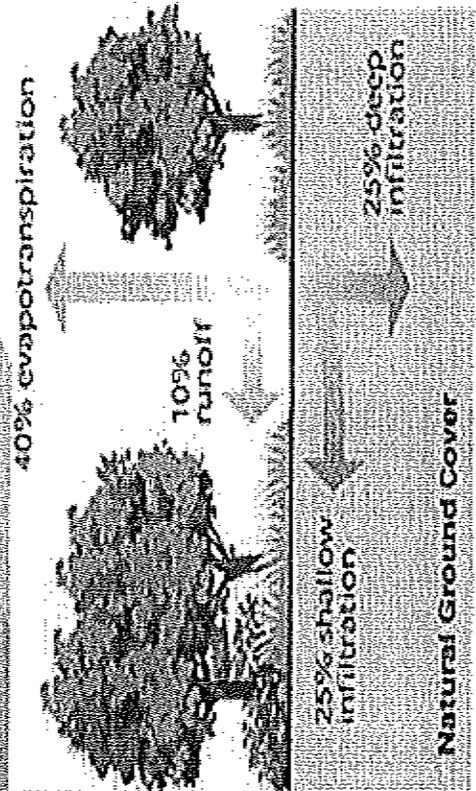
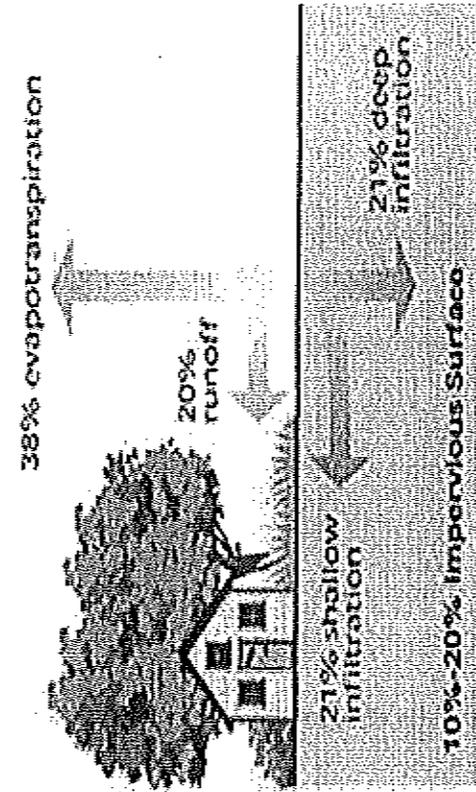


Fig. 3-11 — Relationship between impervious cover and surface runoff. Impervious cover in a watershed results in increased surface runoff. As little as 10 percent impervious cover in a watershed can result in stream degradation.
 In Stream Corridor Restoration: Principles, Processes, and Practices (1998).
 By the Federal Interagency Stream Restoration Working Group (FISRWG) U.S. Federal Agencies of the U.S.A.

The Driving Issues

- Clean Water Act (Federal)
- MS4 Permit/NPDES Stormwater Regulations (Federal)
- Chesapeake Bay Total Maximum Daily Loads (TMDL) (Federal)
- Executive Order 13508: Chesapeake Bay Protection and Restoration (Federal)
- Virginia Stormwater Management Act (VSMP) (State)
- Chesapeake Bay Preservation Act (State)
- Other Pending Infrastructure Concerns (Local)



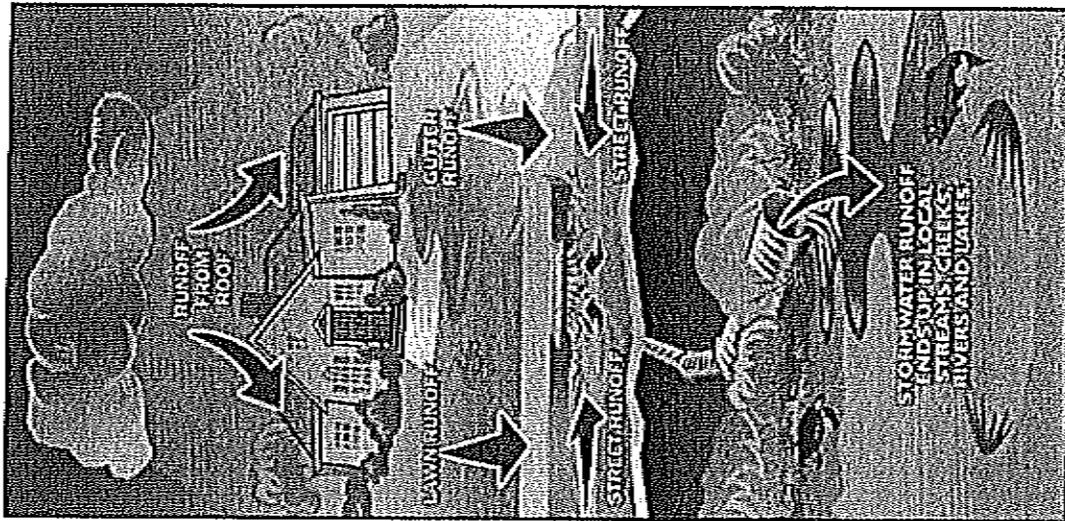
CITY OF *Hopewell*

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An Unfunded Regulatory Mandate

- That requires a comprehensive plan to treat and mitigate point source stormwater pollution through best management practices (BMPs)
- A 2025 Chesapeake Bay mandate that requires a fully implemented TMDL action plan
- By 2017 the City must achieve at least a 60 percent reduction of nitrogen, phosphorus and sediment compared to known 2009 measurements

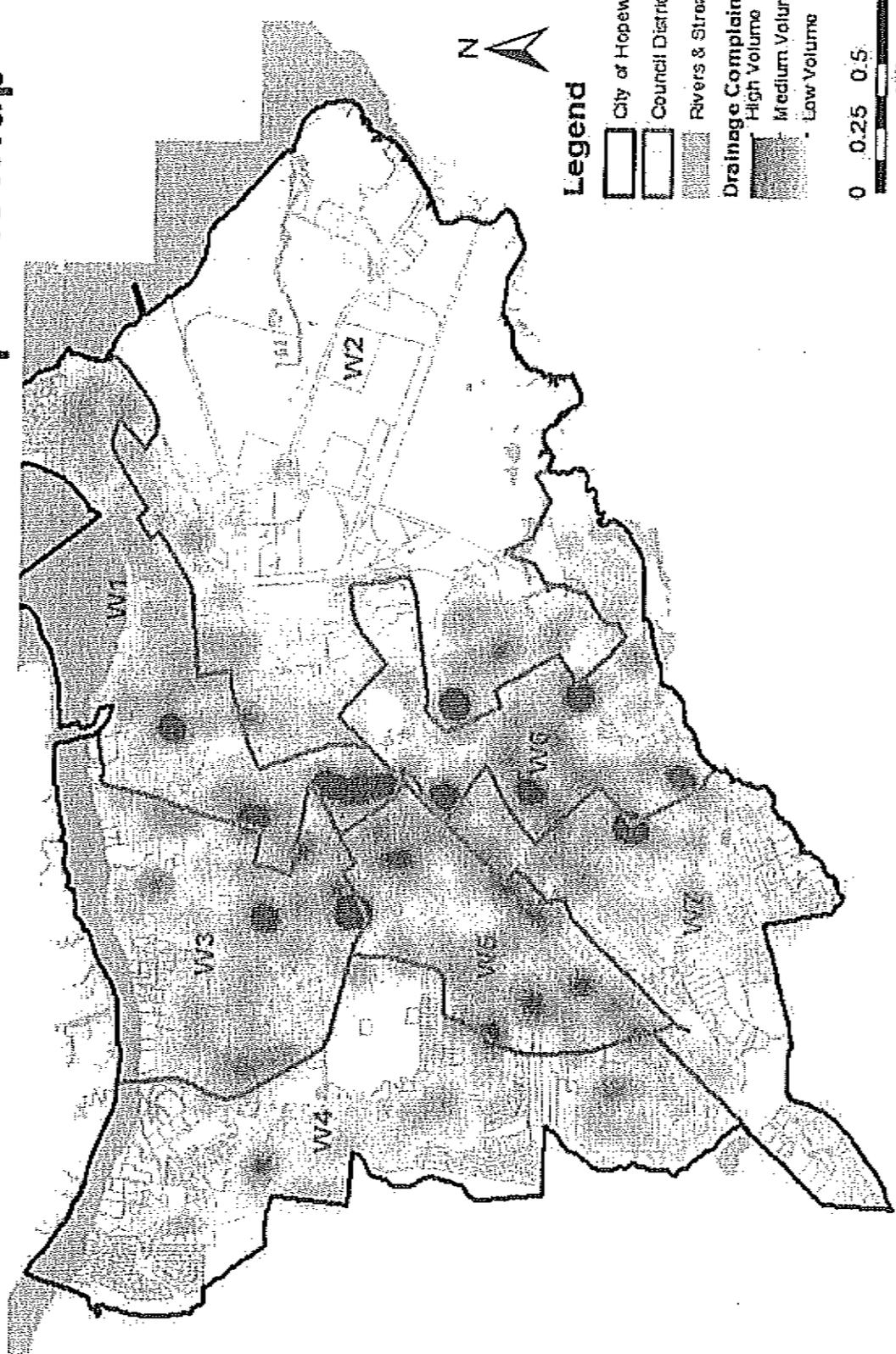


CITY OF *Hopewell*

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DPW Stormwater 5 Year Complaint Map



Legend

- City of Hopewell
- Council District
- Rivers & Streams
- Drainage Complaint History
 - High Volume
 - Medium Volume
 - Low Volume

Local TMDL Impaired Waterways



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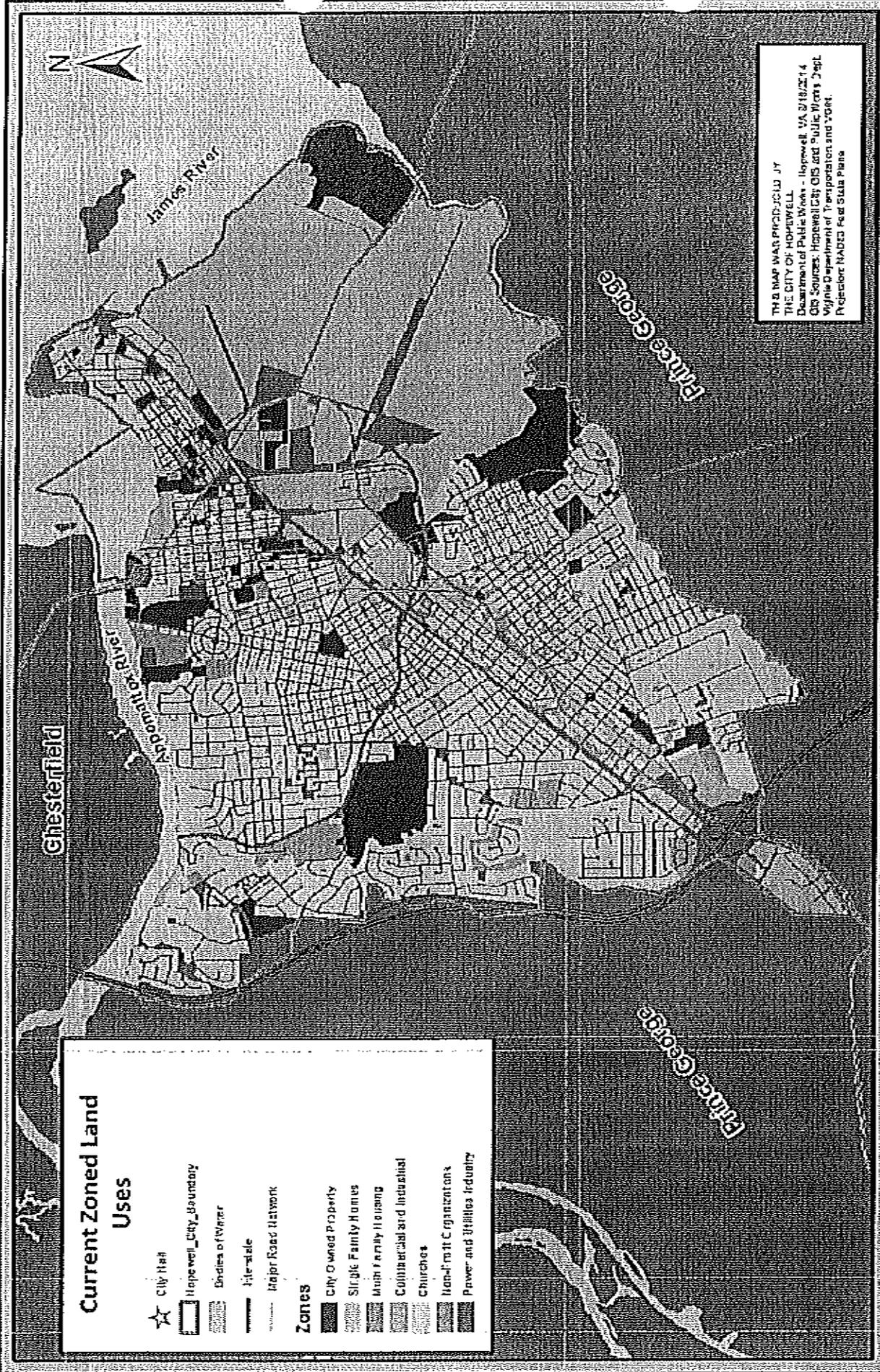
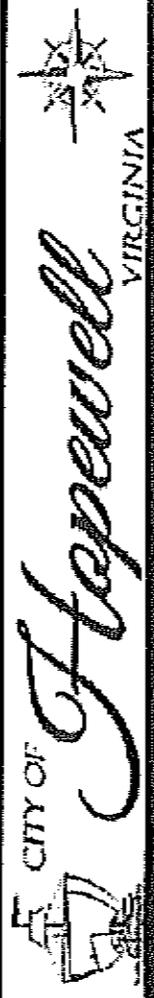
Current Zoned Land Uses

- City Hall
- Hopewell City Boundary
- Bodies of Water
- Interstate
- Major Road Network

Zones

- City Owned Property
- Single Family Homes
- Multi Family Housing
- Commercial and Industrial
- Churches
- Non-Profit Organizations
- Power and Utilities Industry

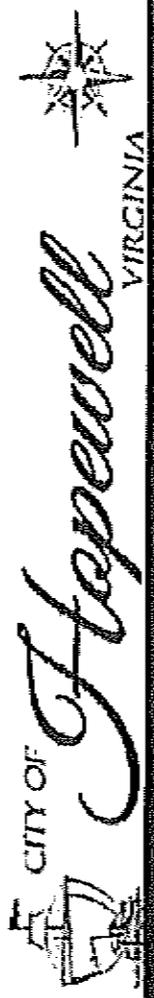
THIS MAP WAS PROVIDED BY
 THE CITY OF HOPEWELL
 Department of Public Works - Hopewell, VA 23101-14
 GIS Sources: Hopewell City GIS and Public Works Dept
 Virginia Department of Transportation and VDOT
 Projector: NAD83 Feet State Plane



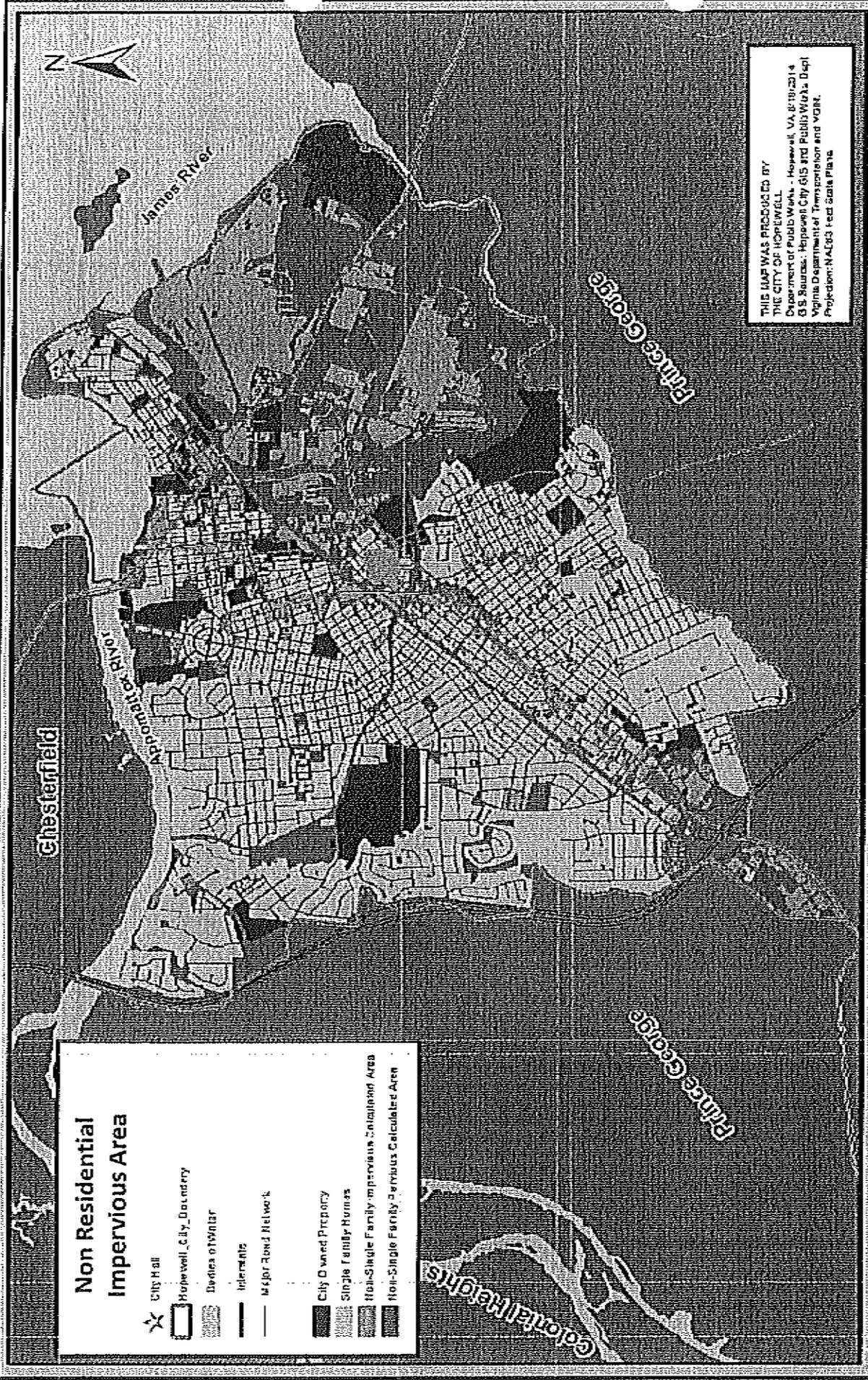
Non Residential Impervious Area

-  City Hall
-  Hopewell_City_Documents
-  Bodies of Water
-  Interstates
-  Major Road Network
-  City Owned Property
-  Single Family Homes
-  Non-Single Family Impervious Enclosed Area
-  Non-Single Family Serviced Calculated Area

THIS MAP WAS PRODUCED BY
 THE CITY OF HOPEWELL
 Department of Public Works - Hopewell, VA 23061
 GIS Sources: Hopewell City GIS and Public Works Dept
 Virginia Department of Transportation and VGNL
 Projection: NAD83 Feet State Plane



CITY OF *Hopewell* VIRGINIA



An Unfunded Mandate

- The State puts the burden of stormwater planning and inspection enforcement on the City
- Creation and implementation of a comprehensive stormwater management ordinance
- Must perform a comprehensive GIS inventory and watershed analysis of existing City wide stormwater network
- Must inspect all BMP City owned and monitored features within 48 hours of major rain event



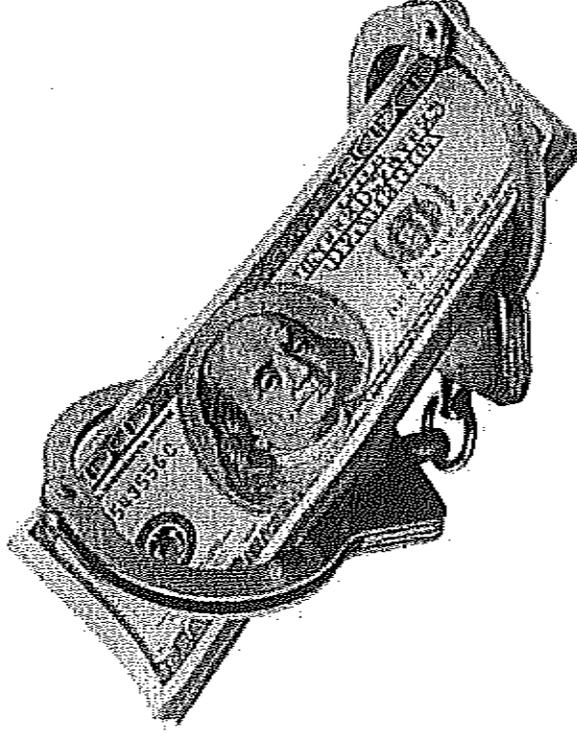
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Those who have been penalized.....

- Henrico
- Chesterfield
- Newport News
- Richmond
- Petersburg
- Roanoke
- Colonial Heights
- Lynchburg



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Key Stormwater Goals

- Protect people and property from flood hazards
- Improve water quality by reducing nonpoint source pollution
- Minimize stream bank erosion
- Collect, transport and treat stormwater at the point source



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How to pay for it all?

- Estimate capital cost of the stormwater system meeting compliance is
.....\$20 million dollars over the next 10 years
- System maintenance and operational cost is an estimated
..... One million dollars annually



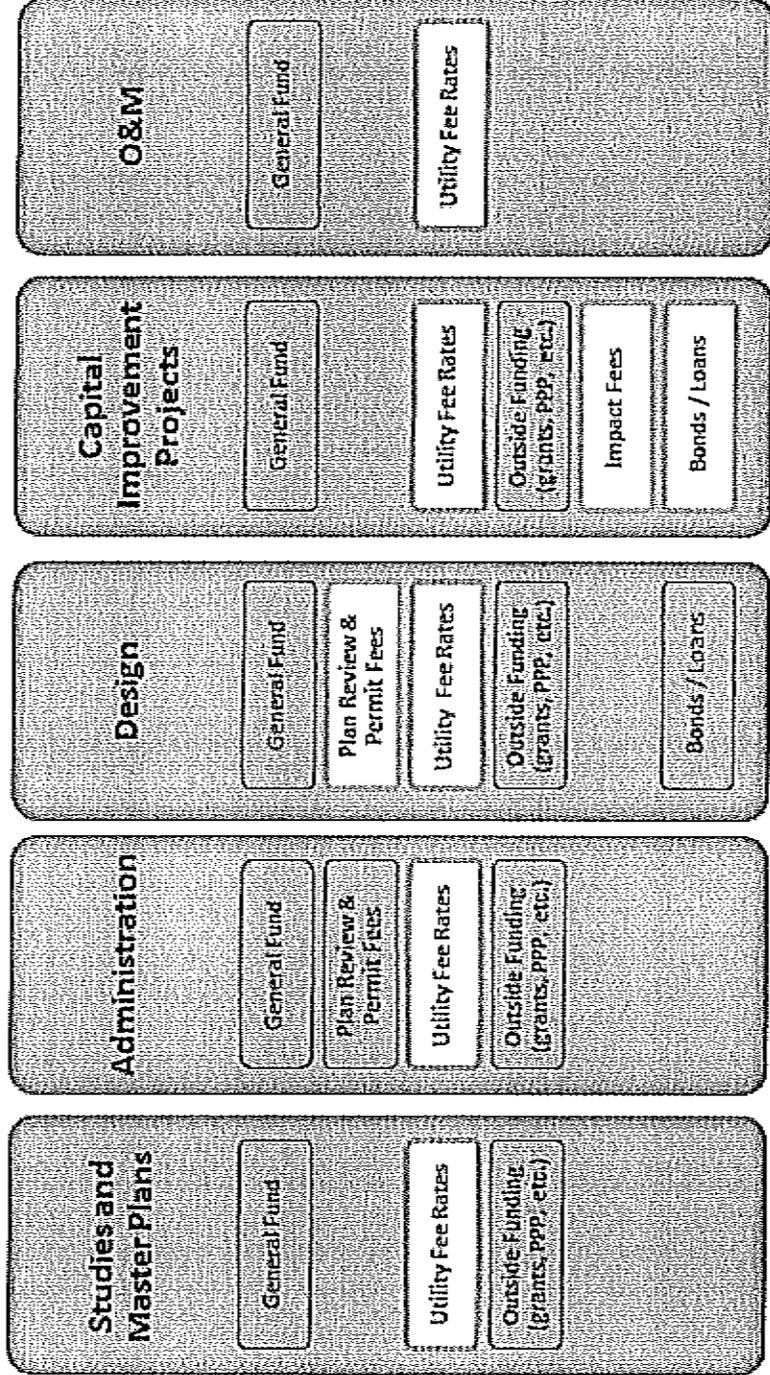
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Typical Uses of Different Funding Options



Create a Stormwater Fee

- A user fee (i.e. stormwater fee) is more equitable than a tax to fund stormwater management
- Utilize the Virginia Stormwater Fee Enabling Authority § 15.2-2114 to create an enterprise fund
- Over 400 municipalities nationwide use a stormwater fee system
- Over 30 Virginia municipalities are utilizing or creating a stormwater fee system
..... Including neighboring localities of Colonial Heights, Petersburg, Richmond, Henrico and Prince George



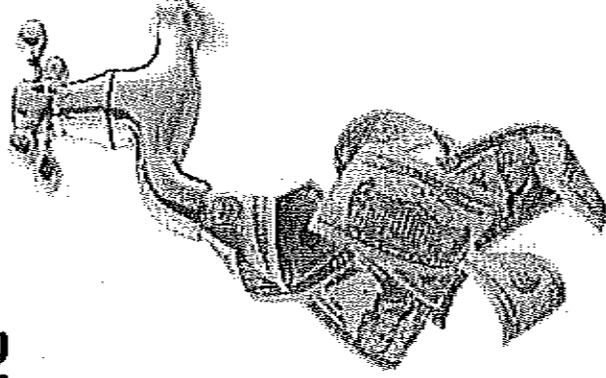
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Estimated Annual Fee Revenue

- Lynchburg: \$2.5 Million
- Petersburg: \$1.5 Million
- Richmond: \$3.5 Million
- Suffolk: \$3.5 Million



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Sample of Virginia Localities With a Stormwater Utility

Locality	Year Established	Annual Rate (\$/ERU)	ERU (sf)
Chesapeake, VA	1992	\$88.20	2,112
Hampton, VA	1994	\$83.88	2,249
Lynchburg, VA	2012	\$48.00	2,672
Newport News, VA	1993	\$96.00	1,777
Norfolk, VA	1996	\$99.96 (R)	2,000
		\$82.44 (NR)	
Petersburg	2013	\$45.00	2,116
Portsmouth, VA	1995	\$99.00	1,877
Richmond, VA	2009	\$45.00	1,425
Suffolk, VA	2006	\$62.88	2,269

Levels of Service

Expense Categories	Level 1	Level 2	Level 3	Level 4	Level 5
Salaries + Benefits	\$161,216	\$360,644	\$432,772	\$504,901	\$721,287
Capital/Regulatory Cost	\$554,800	\$868,080	\$1,109,750	\$1,419,500	\$1,561,450
Other	\$15,500	\$16,770	\$18,275	\$19,350	\$21,500
TOTALS	\$731,516	\$1,245,494	\$1,560,797	\$1,943,751	\$2,304,237

Hopewell's Potential Costs of Stormwater Management for FY2015 - FY 2018

Expense Categories	FY 2015*	FY 2016*	FY 2017*	FY 2018*	FY 2019*
Salaries + Benefits	\$161,216	\$721,287	\$721,287	\$721,287	\$721,287
Capital Costs	\$554,800	\$1,085,100	\$2,219,500	\$1,419,500	\$1,419,500
Other	\$15,500	\$21,500	\$21,500	\$21,500	\$21,500
TOTALS	\$731,516	\$1,827,887	\$2,962,287	\$2,162,287	\$2,162,287

Hopewell's Estimated ERU is....

-2106 sf

Proposed an ERU Rate of \$8 a month



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Hopewell's Potential Annual Revenue from a Stormwater Utility

Classification Zone Type	Total Parcel's	Estimated Impervious Area (sf)	Annual Revenue
Single-Family with Buildings (Zone 1)	8,376	110,256,695	\$804,096
Multi-Family (Zone 3)	362	2,424,061	\$110,499
Commercial and Industrial (Zone 4)	772	42,669,289	\$1,945,039
Houses of Worship (Zone 75)	124	1,184,173	\$53,979
Nonprofit Organizations (Zone 78)	29	12,252	\$558
Utility and Other (Zone 90)	23	1,483,951	\$67,644
Total Estimated Annual Revenue =			\$2,981,815



What Discounts Can be given.....



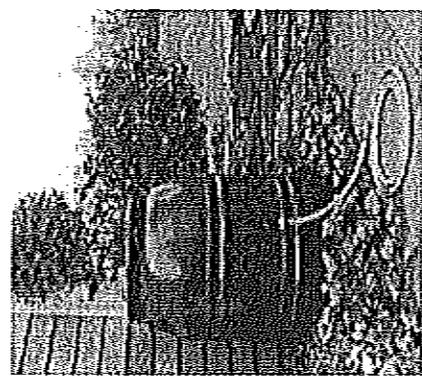
CITY OF *Hopewell*

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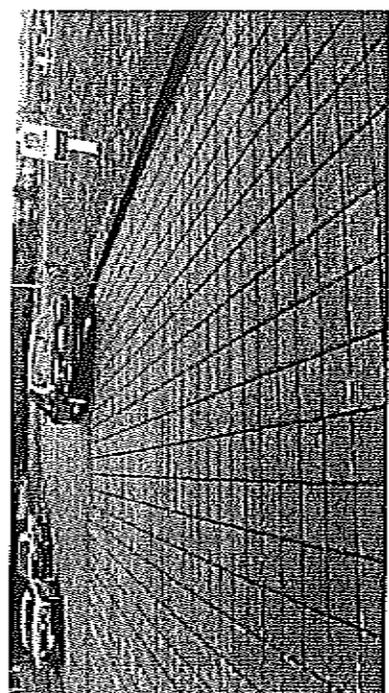


Citizens/Owner Can Receive Up to a 50% discount

- Building rain garden's
- Utilization of rain barrels

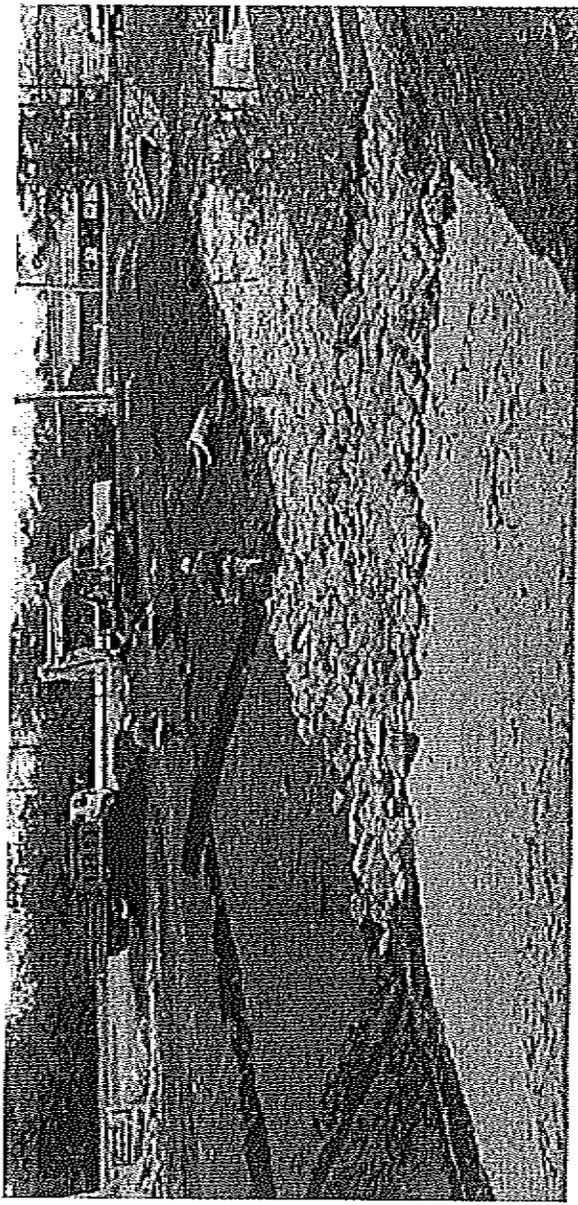


- Increased use of permeable pavers



Industrial Property Owners Can receive Up to 90% by

- Having a DEQ Virginia Pollutant Discharge Elimination System Permit
- Maintaining a Stormwater Pollution Prevention Plan (SWPPP)
- Installing a DEQ Clearing House BMP



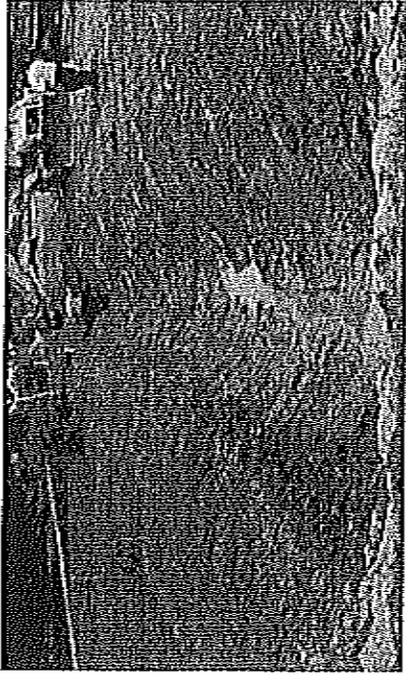
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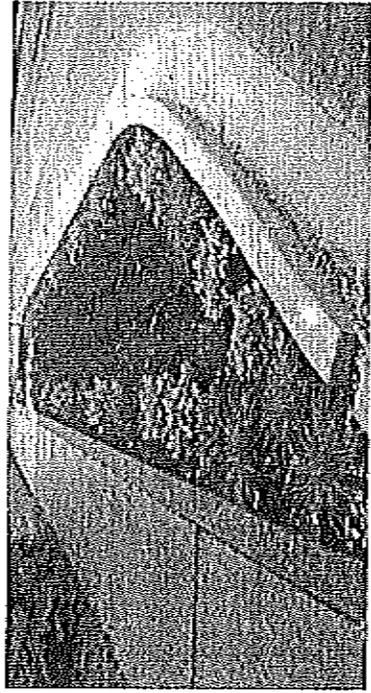


All Other Property Owners Can receive Up to 50% by

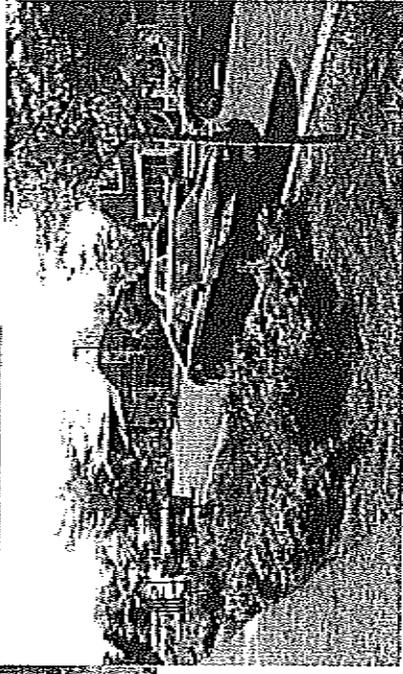
- Installing Grass Swales BMPS



- Stormwater Friendly Curb and Gutter



- Street Scape Beautification



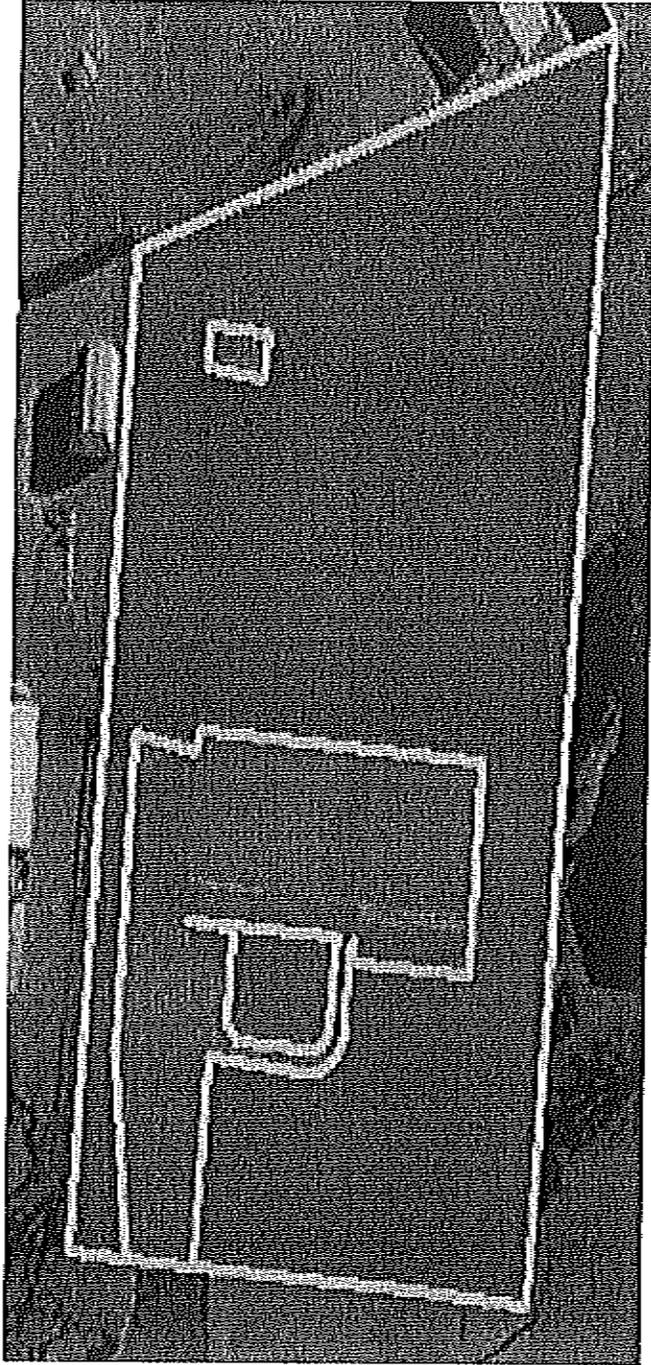
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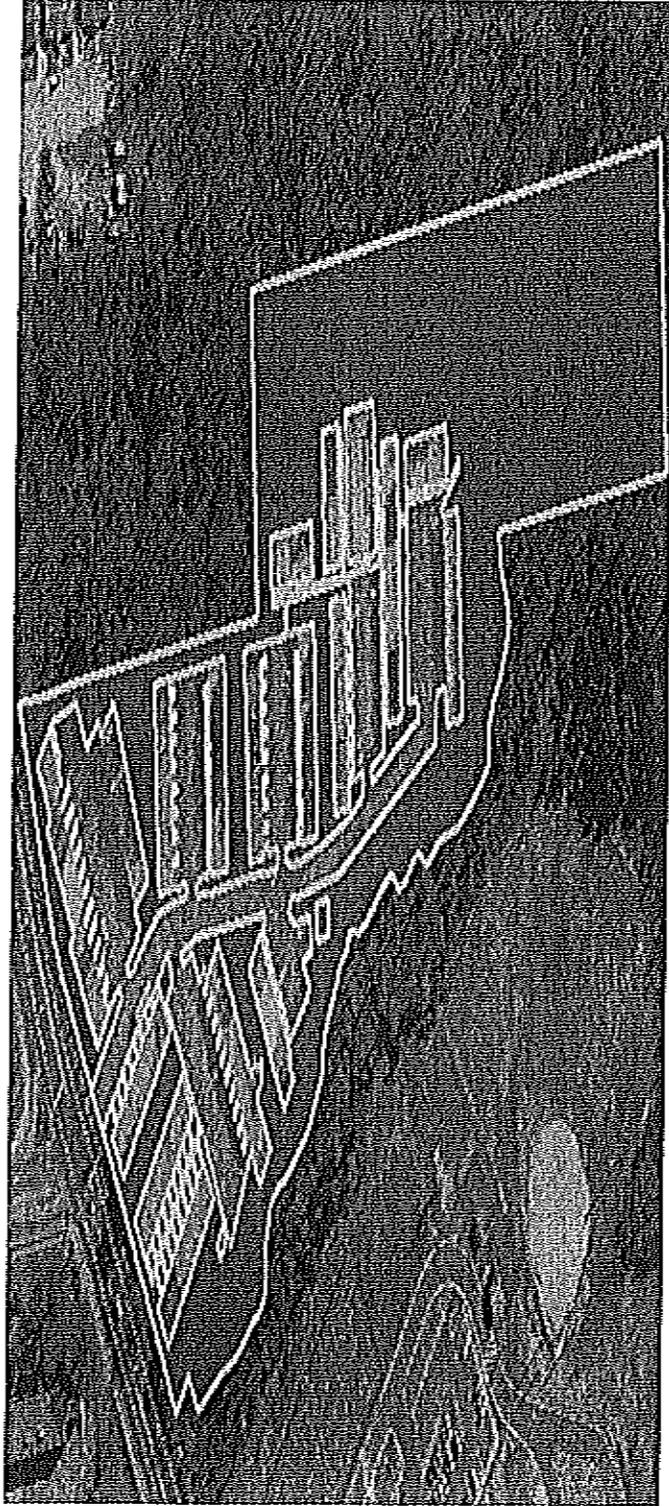
Single Family

ERU Rate:		Monthly Charge	Yearly Charge	With 50% Discount
Total Parcel Area (sf)	Estimated Impervious Area (sf)			
14,873 (.34 Acres)	2,193	\$8	\$96	\$4 a month \$48 a year



Multi Family

ERU Rate:		Monthly Charge		Yearly Charge		With 50% Discount	
Total Parcel Area (sf)	442,546 (10.16 Acres)	\$8	\$643	\$7,716		\$321.5 a month	
Estimated Impervious Area (sf)	169,222					\$3,858 a year	



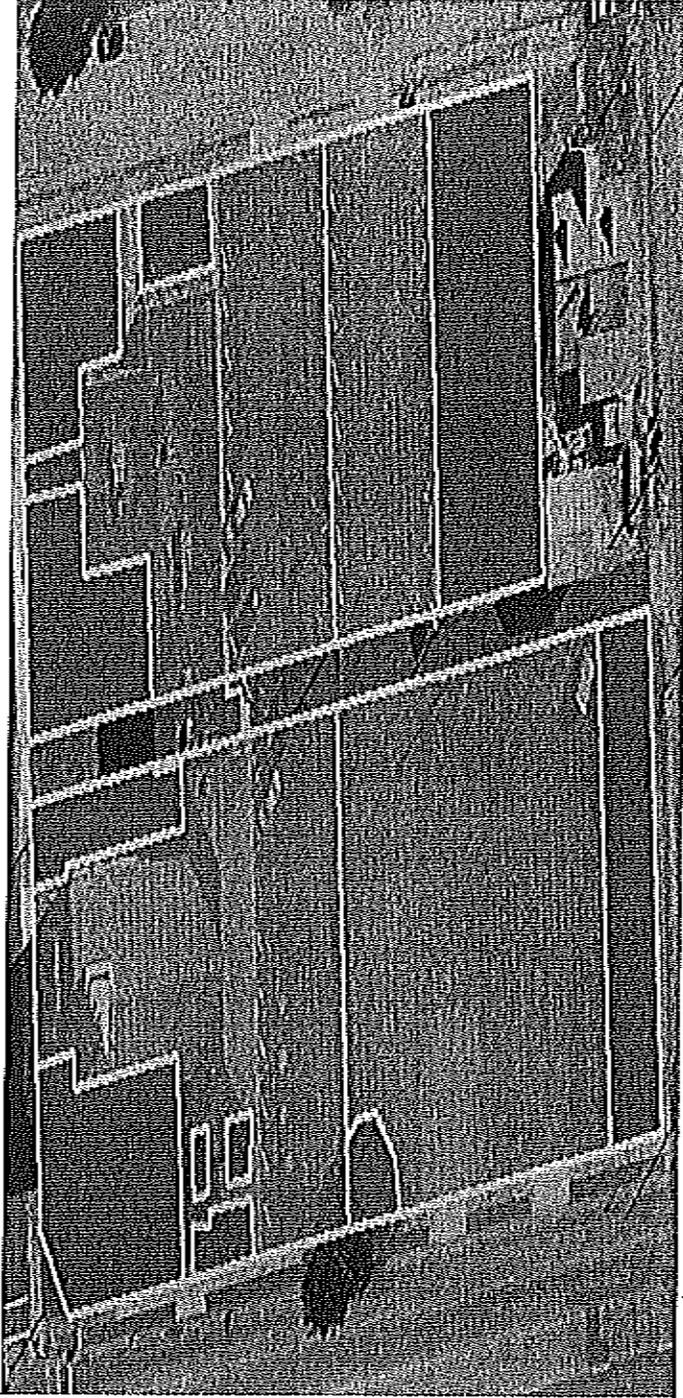
CITY OF *Hopewell*

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First United Methodist Church

ERU Rate:		Monthly Charge		Yearly Charge		With 50% Discount	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	\$8	\$172	\$2,064		\$86 a month	
66,066 (1.52 Acres)	45,384					\$1,032 a year	



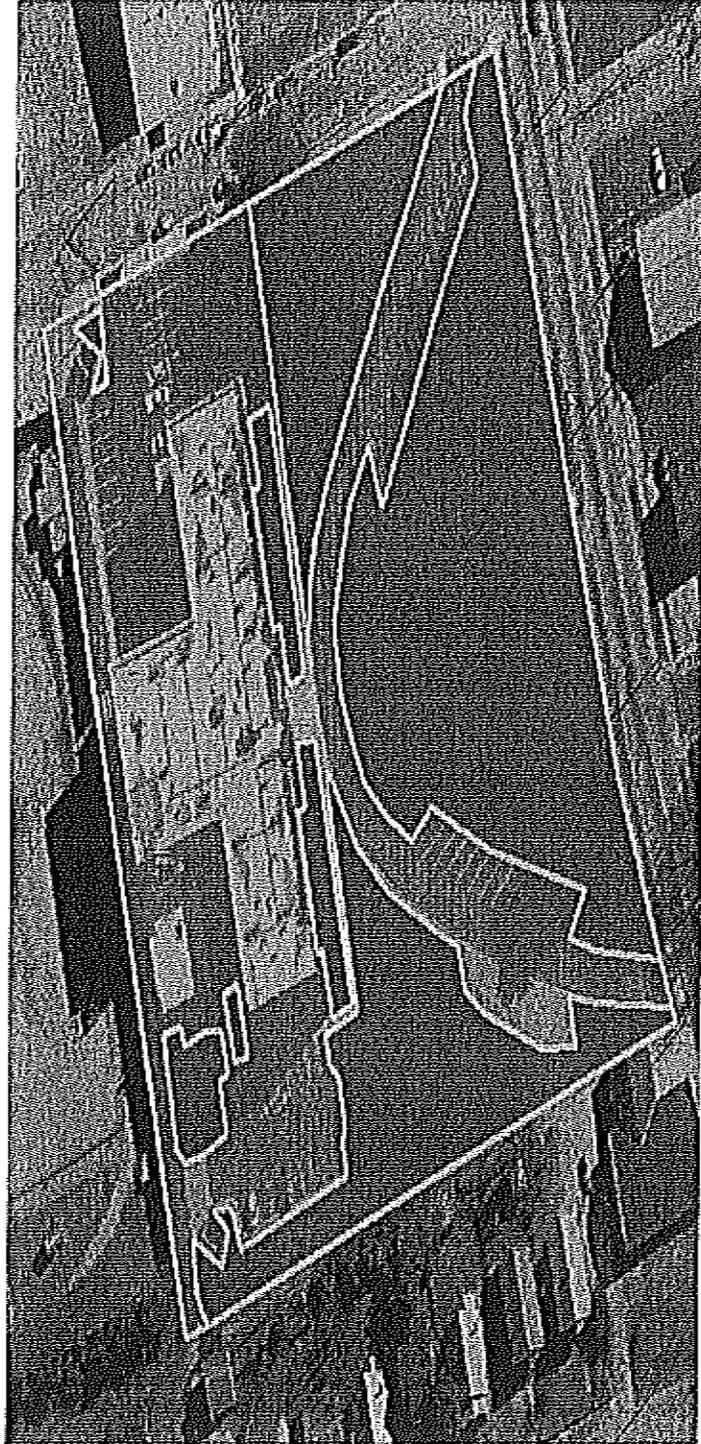
CITY OF *Hopewell*

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The Hopewell Lofts

ERU Rate:		Monthly Charge		Yearly Charge		With 50% Discount	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	\$8	\$300	\$3,600		\$150 a month	
161,962 (3.7 Acres)	79,077					\$1,800 a year	



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Honeywell

ERU Rate:		Monthly Charge	Yearly Charge	With 90% Discount
Total Parcel Area (sf)	Estimated Impervious Area (sf)			
20,141,835 (463 Acres)	8,939,962			\$40,752 a year



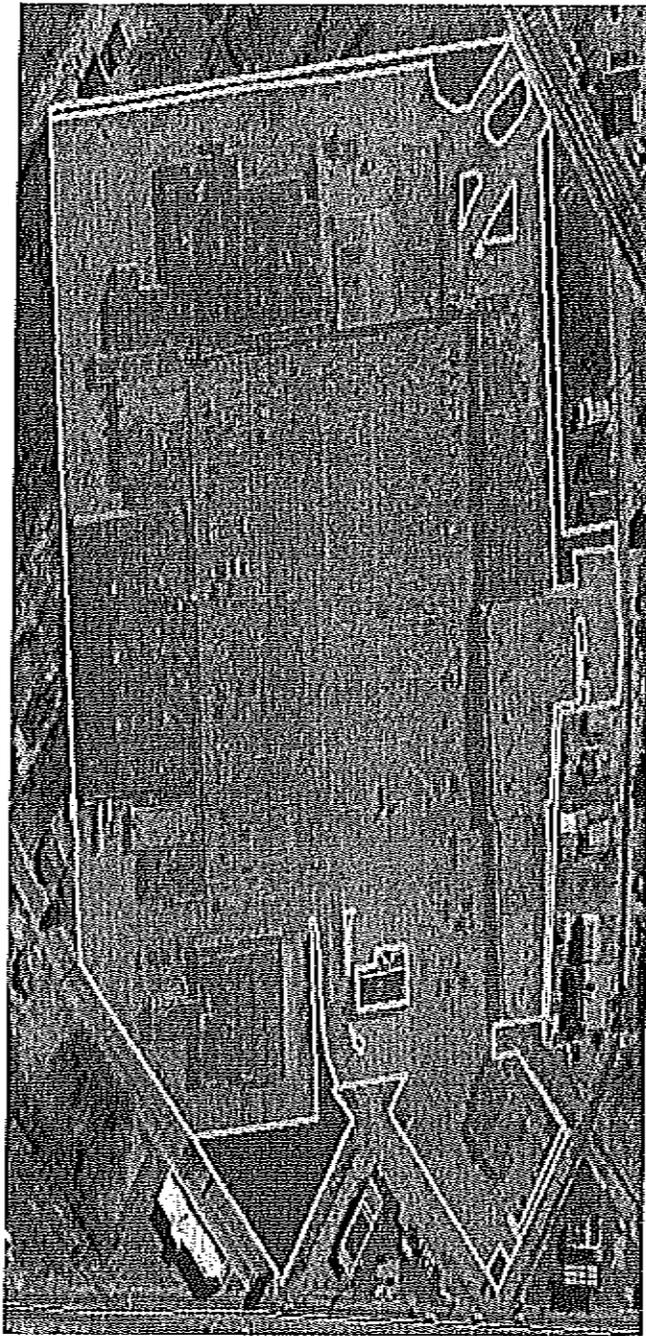
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Cavalier Square

ERU Rate:		Monthly Charge	Yearly Charge	With 50% Discount
Total Parcel Area (sf)	Estimated Impervious Area (sf)			
1,003,851 (23 Acres)	935,098		\$42,624	\$21,312 a year



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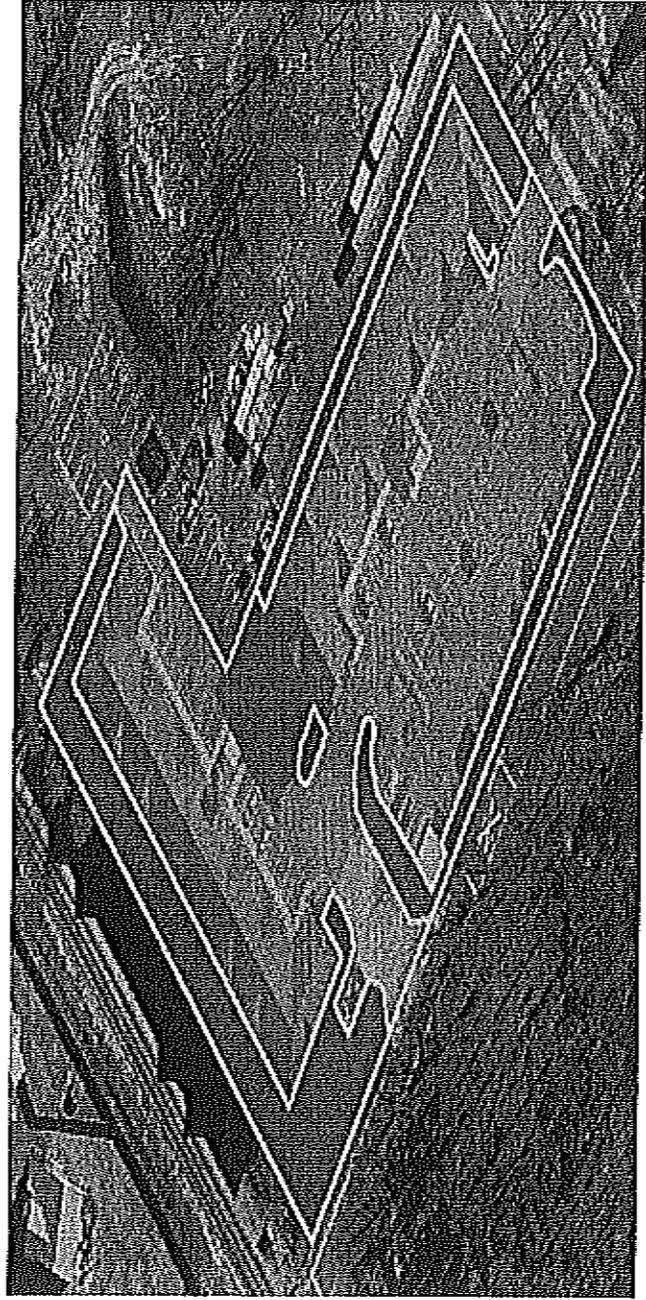
Hopewell

VIRGINIA



Stay-Over Suites

ERU Rate:		Monthly Charge		Yearly Charge		With 50% Discount	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	\$8	\$281	\$3,372		\$140.5 a month	
97,834 (2.2 Acres)	74,079					\$1,686 a Year	



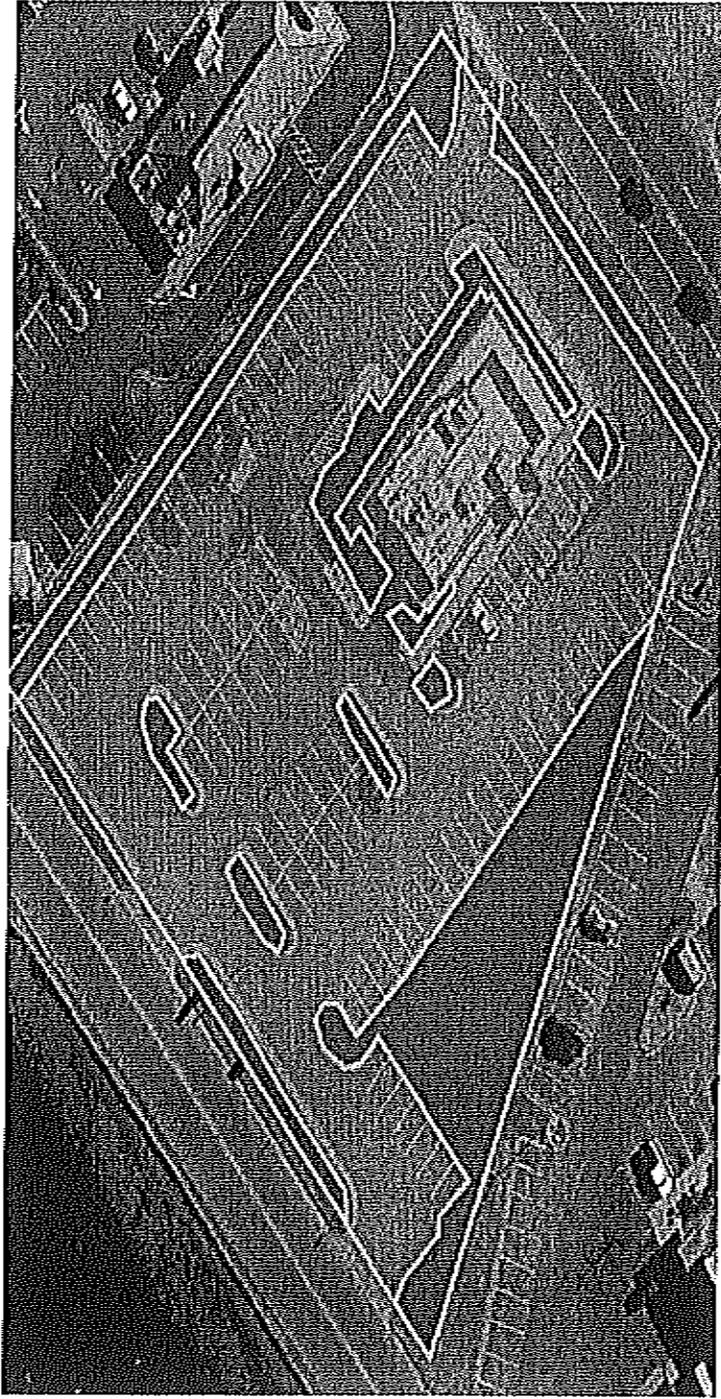
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Ruby Tuesday

ERU Rate:		Monthly Charge		Yearly Charge		With 50% Discount	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	\$8	\$201	\$2,412		\$100.5 a month	
69,423 (1.59 Acres)	52,895	\$1,206 a year					



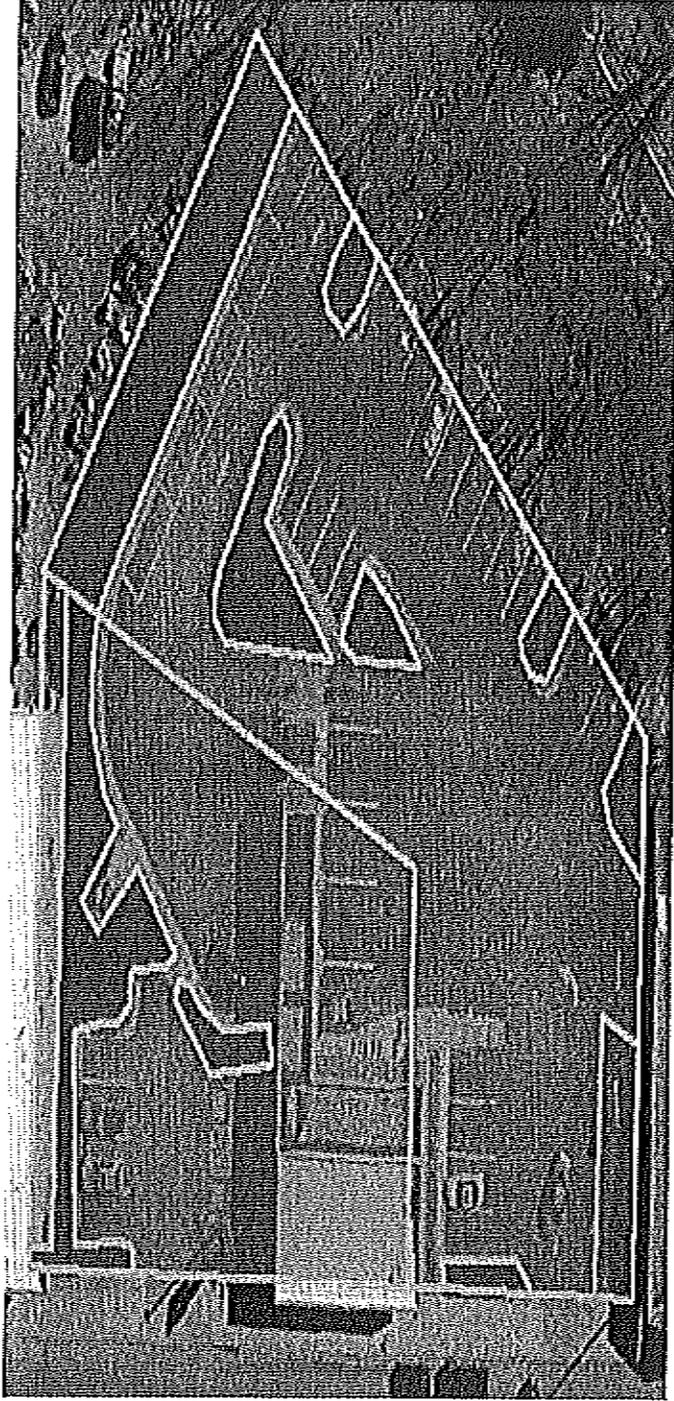
CITY OF *Hopewell*

VIRGINIA



Wells Fargo Bank

ERU Rate:		Monthly Charge		Yearly Charge		With 50% Discount	
Total Parcel Area (sf)	41,225 (.94 Acres)	\$8	\$129	\$1,548		\$64.5 a month	
Estimated Impervious Area (sf)	33,967					\$774 a year	



CITY OF *Hopewell*

VIRGINIA



Actions Going Forward

Hire a Contractor to help with.....

Review and Development (Sept. and Oct. 2014)

Community Outreach (Sept. and Jan. 2014)

City Council Review, Creation and Passage (Sept. and Dec. 2014)

Finalize Data Collection (Billing & Database) (Nov. and Dec. 2014)

Finalize Revenue Scenarios and Rate (Nov. and Dec. 2014)

Ordinance Adoption and/or Updates to City Code pertaining to Stormwater Regulation (Nov. and Dec. 2014)

Final Documentation/Implementation (Jan. 2014)

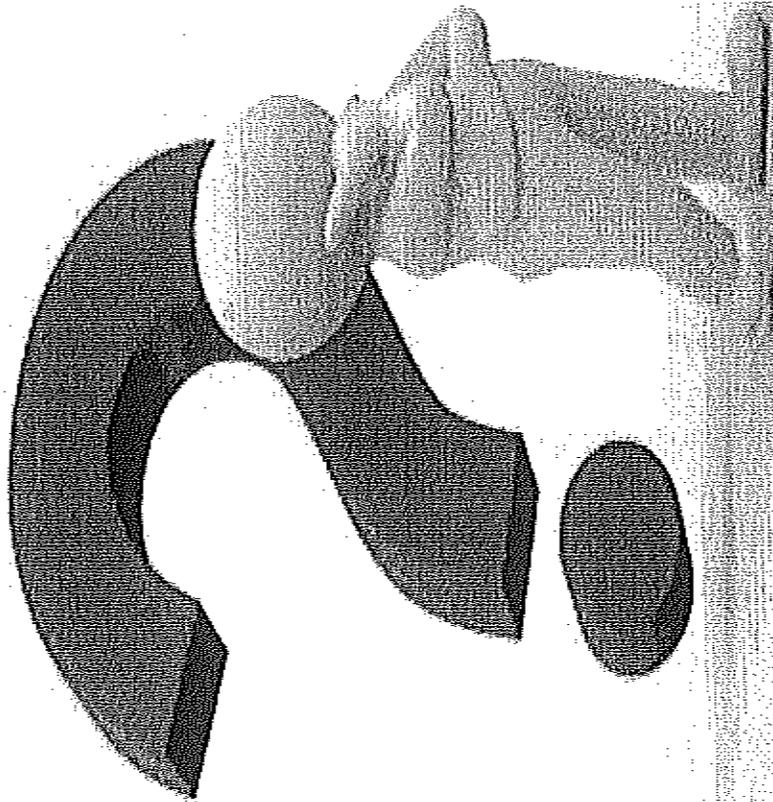


CITY OF *Hopewell*

VIRGINIA



Questions?

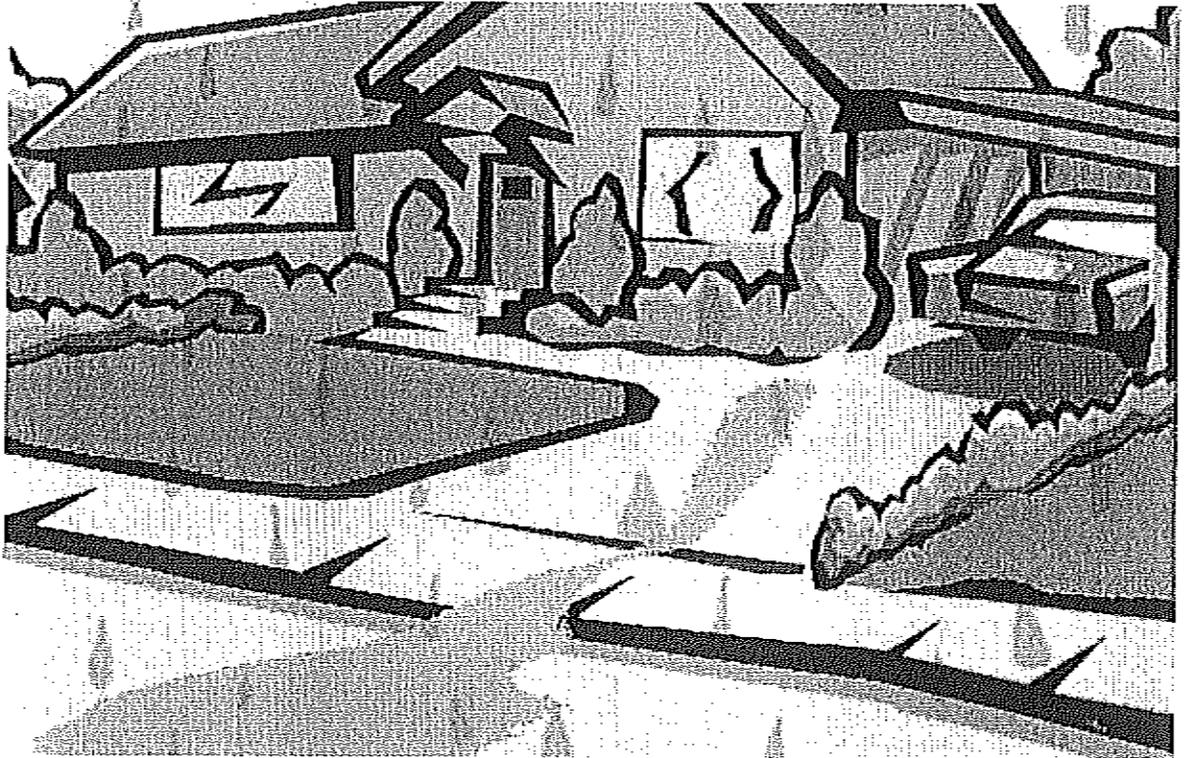


CITY OF *Hopewell*

VIRGINIA



SINGLE-FAMILY RESIDENTIAL CREDIT MANUAL



CITY OF

Hopewell

VIRGINIA



Department of Public Works|Stormwater Division
300 N Main Street
Hopewell VA 23227

804 541 2317

www.hopewellva.gov/

WHY IS STORMWATER IMPORTANT

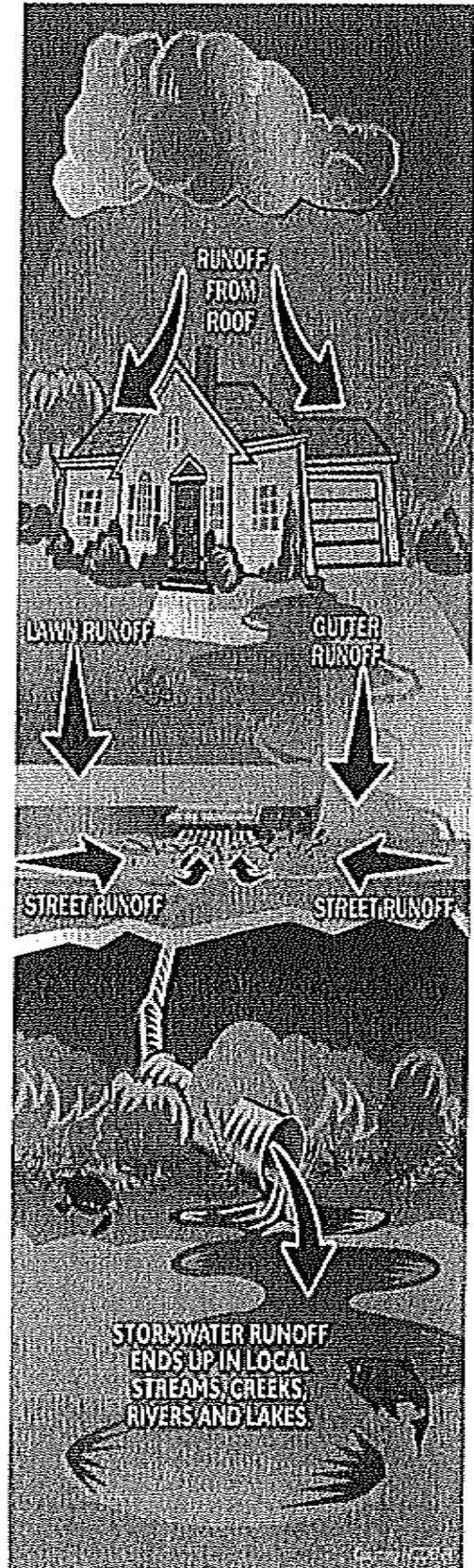
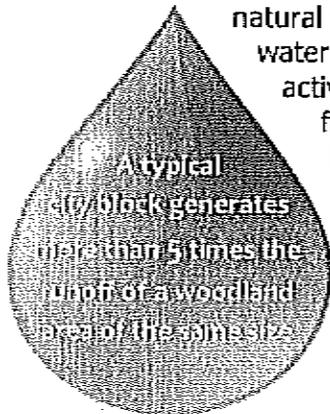
Stormwater runoff is the water that flows off roofs, driveways, parking lots, streets and other hard surfaces during rain storms. Stormwater runoff is also the water that flows off grass surfaces and wooded areas that is not absorbed into the soil. Runoff that is not absorbed into the ground flows into ditches, culverts, catch basins and storm sewers and typically does not receive any treatment to remove pollutants before entering our local creeks and streams.

Water from rain or melting snow either seeps into the ground or flows across the ground, ultimately making its way into streams, creeks, and other water bodies. On its way, this runoff can pick up many natural and man-made substances that can pollute local water bodies. Examples of common pollutants include fertilizer, pesticide, pet waste, sediment, oil, salt, trace metals, grass clippings, leaves, and litter. Polluted runoff can be generated anywhere people use or alter the land, such as farms, yards, roofs, driveways, parking lots, construction sites, and roadways.

BENEFITS OF A STORMWATER UTILITY

A stormwater utility is based on the premise that the urban drainage system is a public drainage system, similar to water or wastewater systems. When a demand is placed on these systems, the user pays. Stormwater runoff needs to be managed just as any other process in the City is managed, such as the water, sewer, roadway, or solid waste systems.

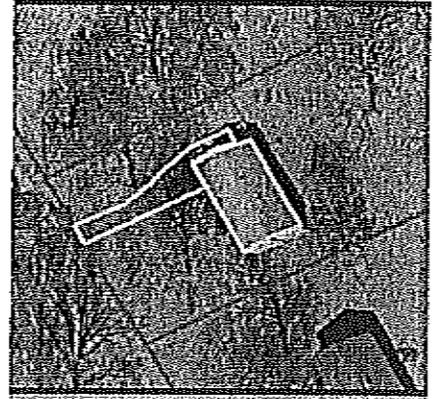
Management is essential to protect the quality of our natural watercourses as drinking water supplies and for recreational activities such as swimming, fishing and boating. Stormwater also needs to be managed to ensure that during storm events that stormwater runoff does not flood or erode private property or otherwise put public safety or private property at risk.



WHAT IS THE COST TO THE CUSTOMER

Parking lots, rooftops and driveways can't absorb water, so it moves quickly over these surfaces into nearby storm sewers and streams. A greater flow of water—i.e. a greater demand—is placed on the urban drainage system. So, the more paved – or “impervious”—surfaces there are on your property, the greater the demand on the system.

For single-family residential properties, the fee is based on square footage of impervious surface. These properties are placed in three categories based on total impervious area.



Tier	Impervious Area	Fee
Small	400 sf or Less	\$0
Regular	401 sf or greater	\$8

HOW CAN I EARN A CREDIT?

Residents that implement stormwater best management practices (BMPs) to reduce the stormwater rate or volume flowing from their properties to the storm system or surrounding bodies of water, can qualify to receive a reduction in their stormwater fee.

If approved, each device will earn the property owner a credit of 20% of the stormwater utility fee, up to a maximum credit of 50% of the fee. No property owner shall receive a credit of greater than 50% of the fee.

The City shall affirm or deny credit applications and reapplications within 45 days of submittal. Any credit denial shall include comments from the City indicating what modification the applicant can make in order to achieve acceptance of the credit or shall include a statement that the credit application as submitted must be restructured significantly to achieve approval. Property owner can submit a BMP design for approval prior to construction. Credit will not be applied until the BMP has been constructed and the construction has been approved.

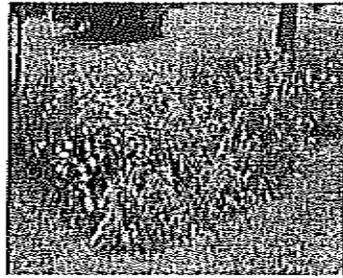
- The **maximum** credit a homeowner can receive is **50%**.
- Credits are valid for **three years**
- Proper installation and maintenance is required to continue receiving the credit.



APPROVED BMPs

Rain Garden

A rain garden is a landscaped area in a depression designed to capture and filter stormwater runoff from an impervious surface.



Design Requirements

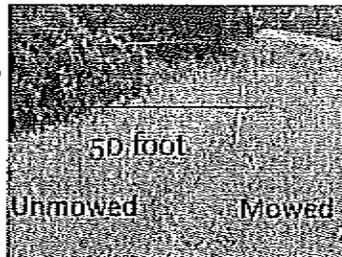
At least 50% of a property's impervious surface area must drain to the rain garden. The rain garden must be designed according to either:

- Virginia Department of Conservation and Recreation - Stormwater Design Specification No. 9 – Bioretention
- Virginia Department of Conservation and Recreation - Minimum Standard 3.11 – Bioretention Basin Practices

If 90% of a property's impervious surface area drains to a rain garden, double credit may be given up to the maximum amount. Include mosquito prevention and overflow controls.

Vegetated Filter Strip

Vegetated filter strips are runoff flow paths of dense turf, meadow grasses, trees or other vegetation with a minimum slope to treat runoff from roof downspouts.



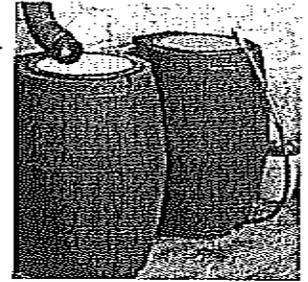
Design Requirements

- At least 50% of the property's roof area drains to vegetated filter strips.
- Downspout discharge must be dispersed using splash block.
- Filter strips are fully vegetated with no bare soil or mulch.
- Minimum flow length of 50 feet with slope of 5% or less.

Rain Barrel/Cistern

Temporary storage of stormwater runoff can reduce peak runoff volumes and can result in reduced overall stormwater volumes by discharging

runoff over less saturated soil, thereby allowing greater infiltration and evaporation of runoff to occur. Other comparable configurations may be approved with appropriate detention time, volume, and release rate calculations.



In order to be effective, empty storage space must be available when rain falls. Therefore, the rain barrel or other storage device must empty itself within 4 to 48 hours of the end of rainfall. If the property owner wishes to save rainfall for use in gardening or other non-potable uses, additional storage for such uses may be installed. However, stormwater utility credit is granted only for storage that empties itself.

Design Requirements

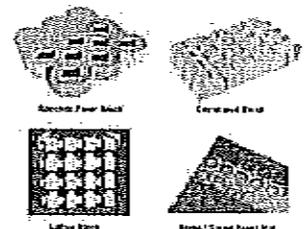
- At least 50% of a property's roof area must drain to a rain barrel or other self-emptying storage device.
- At least one gallon of storage must be provided for every three square foot of roof area. (stores one half inch of rain)
- Must drain in no less than 24 hours and no more than 4 days after each rainfall event.
- Overflows from storage must be directed to appropriate outlets or areas and away from neighboring properties, sidewalks, steep slopes or retaining walls.

Pervious Pavement

Pervious pavements are designed to allow infiltration of stormwater through the surface into the soil below where water is naturally filtered and pollutants are removed. Pervious pavements may include paving blocks, grid pavers, pervious concrete, or pervious asphalt. Gravel is not considered pervious and is not eligible for a credit.

Design Requirements

- At least 1000 square feet of pervious pavement must be installed.
- Stone reservoir must be at least 10 inches deep at all points.



How do I apply?

All applicants must complete a Single-Family General Application and include a picture of the Best Management Practice. Applications must be submitted with all required documentation, including photos, to the address below.

Once the Department of Water Resources has received your application, an administrative completeness review will be conducted. If the application is not complete, the Department will contact the applicant and may request additional information necessary to complete the application.

Once a complete application has been received the Department will review all documentation and the applicant will be notified in writing when an application is approved or denied. If an application is denied, the applicant can file appeal to the Department of Water Resources.

The appeals form, credit application and manual can be found at the website below: <http://www.hopewellva.gov>

Application checklist:

- 1) Install your selected Best Management Practice.
- 2) Complete the Single-Family General Application.
- 3) Include pictures of each Best Management Practice installed.
- 4) Review your application.
- 5) Submit application to the address below.

The image shows a 'Single-Family Residential Stormwater Credit Application' form. The form is tilted and contains several sections with checkboxes and input fields. The sections include:

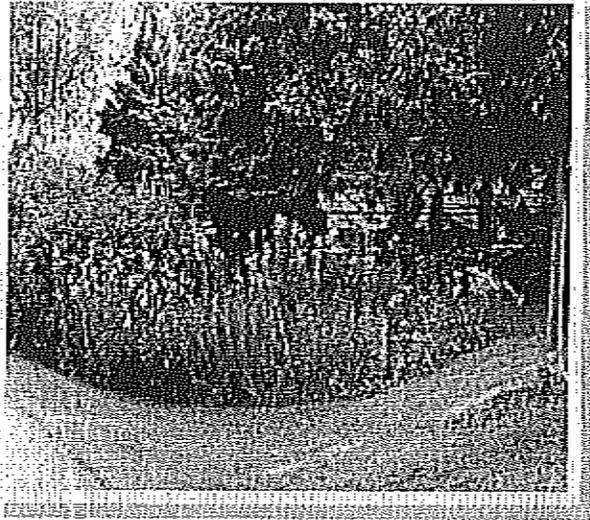
- Applicant Information:** Name, Address, City, State, Zip, Phone, Email.
- Property Information:** Parcel ID, Lot Area, Stormwater Fee, etc.
- Stormwater Management Practices:** A list of practices with checkboxes for 'New Stormwater Practice' and 'Approved Stormwater Practice'.
- Other Information:** A section for 'Other Information' with a checkbox and a text area.

Department of Public Works |
Stormwater Division
300 N Main Street
Hopwell VA 23227

RAIN GARDEN — DESIGN REQUIREMENTS

RAIN GARDENS are landscaped areas built in a depression that are designed to capture and filter stormwater runoff from a roof or other impervious surface. The plants and soil in a rain garden provide an easy, natural way of reducing the amount of stormwater runoff.

**20%
Credit**

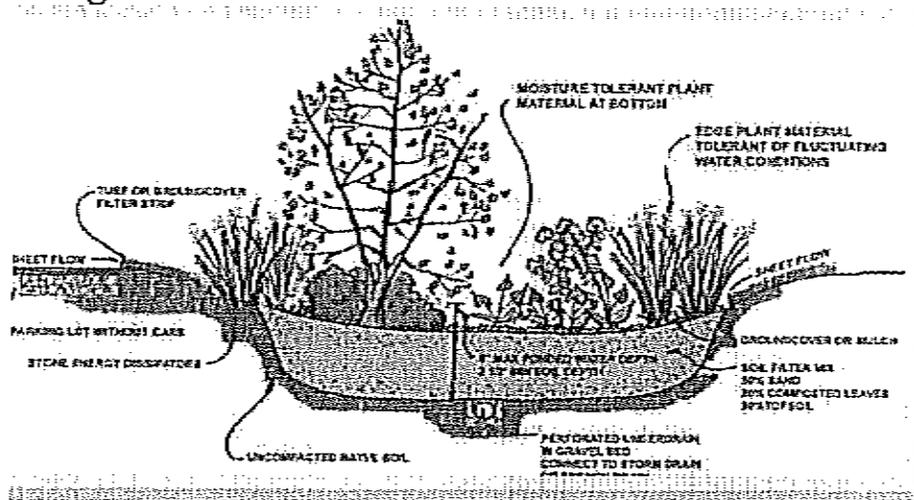


Installation standards

To obtain a single family residential property credit for a rain garden the following standards and requirements must be met:

- At least 25 % of the property's roof area or equivalent impervious surface must drain to the rain garden.
- The rain garden must be sized and constructed according to the Virginia Department of Forestry Rain Gardens Technical Guide. Any alternate design must be pre-approved.
- Overflows must be directed to appropriate outlets or areas and away from neighboring properties, sidewalks, steep slopes or retaining walls.

Rain garden cross section



Maintenance guidelines

1. Rain gardens must be maintained annually to ensure continued function. Maintenance includes weeding, checking for erosion and other tasks listed in the Rain Garden Technical Guide.
2. The property owner is responsible for maintaining the rain garden. The credit renewal process will require documentation that the rain garden continues to function as approved.



Include a photo of the rain garden with your application!

ON SITE STORMWATER STORAGE

ON-SITE STORMWATER STORAGE STRUCTURES can include rain barrels, cisterns other devices as approved by the City of Hopewell Stormwater Utility. These structures collect and capture rooftop rainwater that would otherwise drain directly to the stormwater system or streams. The collected rainwater can be used to water plants, trees or lawns during dry periods.



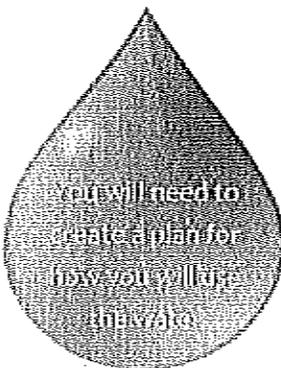
RAIN BARREL

A rain barrel is composed of a 40-55 gallon barrel or drum with some type of diverter or connection from a downspout, a spigot or hose to drain the barrel and some type of overflow mechanism. Any openings to the air should be screened to keep debris and insects out.



An overflow mechanism must be provided so that when the rain barrel is full, excess water can flow back into the downspout and then to a storm drain or onto a landscaped area.

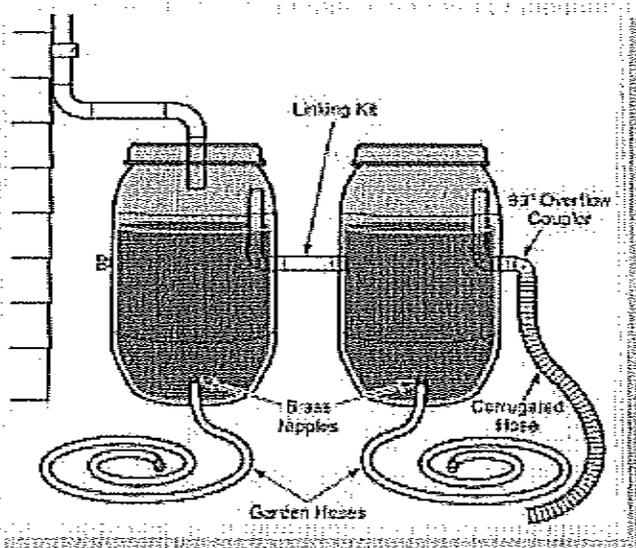
Saving water not only helps protect the environment, it saves money and energy because of the decreased demand for treated tap water. You can purchase a rain barrel or make your own. Ensure your rain barrel will meet the credit requirements on the next page.



CISTERN

Cisterns are similar to rain barrels in function but hold larger quantities of water. They can be installed under ground, at ground level, or elevated depending on the site and space constraints of the property.

A cistern should be constructed out of reinforced concrete, galvanized steel, or plastic, and should have smooth interior surfaces, be watertight, have enclosed lids and be sized according to the installation standards on the next page to manage the proper amount of runoff.



Certain design standards and guidelines must be met to obtain a SFR Credit.....

Keep reading to find out more on the next page

ON SITE STORMWATER STORAGE, CONT...

Installation Standards

To obtain a single family residential property credit for on-site stormwater storage the following standards and requirements must be met:

1. 50% of the property's roof area is properly connected to rain barrels or other approved storage devices that provide at least 40 gallons of storage per downspout
2. On-site stormwater storage must be completed in such a way that does not provide mosquito breeding grounds; such as making sure rain barrels are covered with a lid or screen that prevents mosquitoes from entering the storage structure.
3. On-site stormwater storage must be equipped with an overflow or bypass mechanism to divert rainwater to the storm drainage systems when storage structure is full. These mechanisms must not cause erosion, property damage or overflow onto a neighboring property.
4. On-site stormwater storage must be completely drained in no less than 24 hours and no longer than 4 days after each rainfall event.
5. All on-site stormwater storage structures must meet the local codes for downspout disconnection, property setbacks and all other applicable codes.

Where to get a rain barrel:

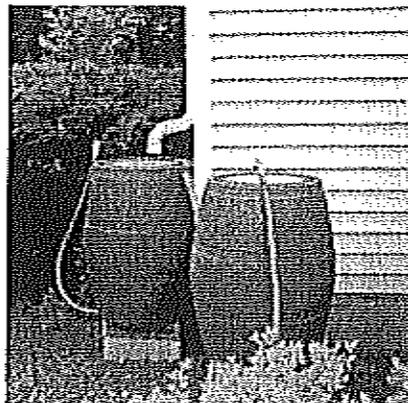
You can purchase a rain barrel at most major lawn and garden centers. Call your local center to see if they carry them or if they can order one for you. There are numerous online suppliers as well.

You can also make your own rain barrel using a large trashcan, agricultural supply container, or other large container and a little ingenuity.

For further recommendations, talk to your local Soil & Water Conservation District or watershed group (see back page for contact information).

Maintenance Guidelines

1. Clean your gutters regularly to reduce debris.
2. Clear off any screens as necessary.
3. Periodically check any hoses associated with the storage structure to clear any debris.
4. To winterize, disconnect and return the downspout to its original configuration. Remove the hoses and mesh screen and store them. Make sure to drain the container to prevent it from freezing and cracking. If possible, store it upside down, so no water or materials will be able to enter.
5. For cisterns, leave the outflow spigot fully open during frost/freezing periods and unhook the drain hose about twice a year to clean out any compacted sediment.



Include a photo of the rain garden with your application!

PERVIOUS PAVEMENT

PERVIOUS PAVEMENTS are designed to allow percolation or infiltration of storm-water through the surface into the soil below where the water is naturally filtered and pollutants are removed. Pervious pavement may include paving blocks, grid pavers, pervious concrete, or pervious asphalt. Gravel driveways are not considered pervious and are not eligible for a credit.

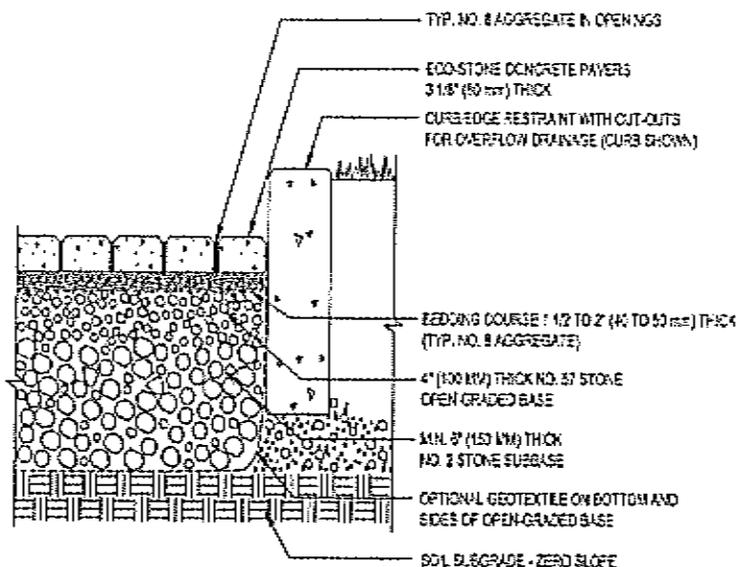
**20%
Credit**

It is recommended that a qualified installer with knowledge of hydrology and hydraulics be consulted for applications using pervious pavement to ensure desired results. This fact sheet provides an overview of construction guidelines and research to date and is not meant to replace the services of experienced, professional installers.

Installation standards:

To obtain a credit for pervious pavement the following criteria must be met:

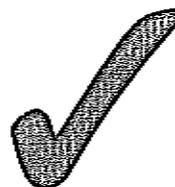
- Installed for the purpose of runoff filtration.
- Area of pervious pavement is at least 1000 sq. ft.
- Stone reservoir underneath the pavement type is at least 10 inches deep at all points.
- Installation meets all local building and zoning standards for driveway installations.



Maintenance Guidelines

1. Ensure pervious pavement system is draining and there are no visible signs of standing water on the surface.
2. Do not apply salt or sand during winter months.
3. Use a professional vacuum service annually to remove sediment accumulation and organic debris on the pavement surface.
4. Remove accumulated leaves and debris from pavement surface in the fall.

Remember to include a photo of the pervious pavement and a photo of the construction identifying the depth of stone reservoir with your application!



VEGETATIVE FILTER STRIPS

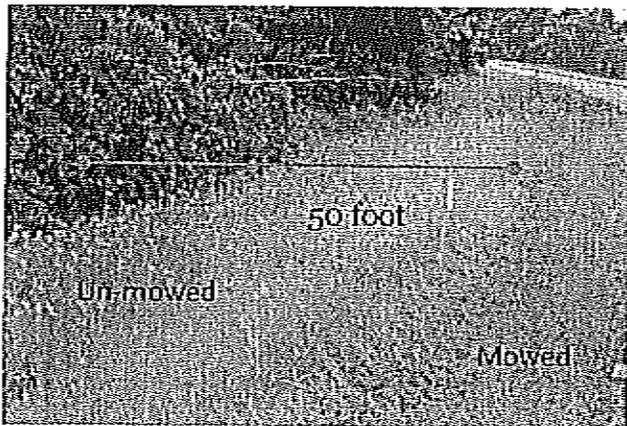
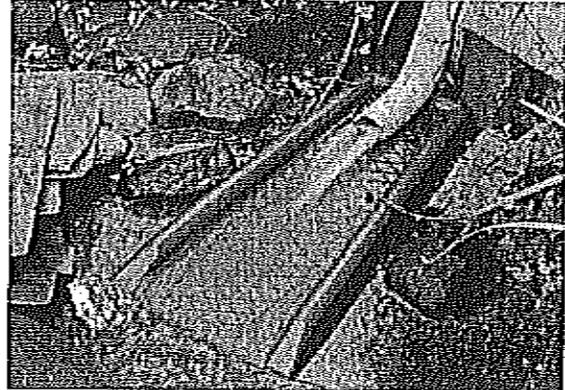
VEGETATED FILTER STRIPS are uniform strips of dense turf, meadow grasses, trees, or other vegetation with a minimum slope to treat runoff from roof downspouts.

20%
Credit

Installation standards:

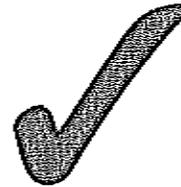
To obtain a credit for vegetated filter strips the following criteria must be met:

- 50% of the property's roof area drains to the vegetated filter strip.
- Filter strips are fully vegetated and there are no areas of bare soil or mulch.
- Filter strips must be at least 50 feet long with slopes less than 5%.
- Runoff from roof downspouts must be dispersed using splash block.



Maintenance guidelines:

1. Clean gutters regularly to reduce debris.
2. Check the splash blocks twice a year to make sure they are not broken or damaged.
3. Maintain healthy vegetation along the filter strip.
4. Plant additional vegetation if bare soil or erosion is present.

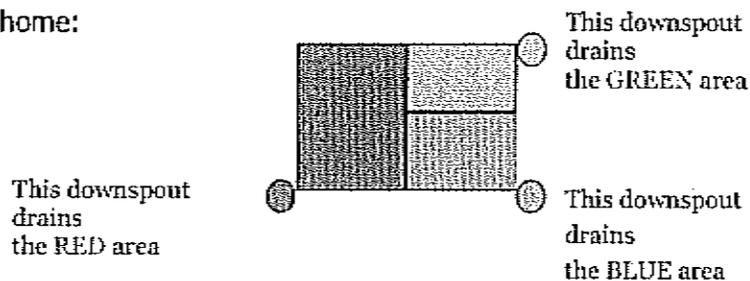


Include a photo of the vegetated filter strip with your application!

EXAMPLE

The Smith's want to apply for a stormwater credit. Follow along as they decide which stormwater Best Management Practices (BMPs) will work for their property and fill out their application.

Let's look at their home:



For the Smith's to qualify for the credit either the red downspout or both the green and blue downspouts need to be connected to rain barrels. They decide to put a rain barrel on the red drain and goes to their neighborhood garden center and purchases a rain barrel kit. They attach the rain barrel to the red downspout and are now eligible for a **20% credit!**

But they are not finished! They like saving water and decide to add two more barrels and capture all the rain from their roof. They install two more rain barrels and applies for another credit. Their credit is **up to 40%!**

Lets review the Smith's situation. They have installed three rain barrels and have **qualified for 40% off their stormwater bill.** They can **earn up to 50% off** so they still have 10% more to save. What else can they do to get that last 10% credit? Their driveway and patio square footage equals 675 square feet so they don't meet the 1000 square foot installation requirement for pervious pavement.

The Smith's review their Credit Manual and discover another way to save. They like gardening, so they choose a rain garden for their next BMP. They download the *Rain Garden Technical Guide* on the Department of Forestry's website. They have already captured all of the rain from their roof, so they search for drainage from another impervious surface area where water can be captured. With a little reworking of the landscaping, they can capture the runoff from the small driveway into an appropriately sized rain garden. They fill out a third credit application for the **remaining 10% credit.**

With a little bit of research, sweat equity and planning, the Smith's have accomplished great things! They have saved water, reduced pollution and added a beautiful new garden.

Oh—and they **saved 50%** on their stormwater bill. Good job Smith family!!!

RESOURCES

Department of Forestry

Information on Water Quality and rain gardens
 Rain garden Technical Guide
<http://www.dof.virginia.gov>
 434-977-6555

Virginia Soil & Water Conservation District

Watershed education, low impact development information, backyard conservation, lawn and tree care tips, rain garden and rain barrel information
<http://www.vaswcd.org>
 804-559-0324

Virginia Department of Conservation and Recreation

Watershed education, lawn care and pet waste information, land conservation
<http://www.dcr.virginia.gov>
 804-786-1712

James River Association

9 South 12th Street, 4th Floor
 Richmond, VA 23219
www.jamesriverassociation.org
 (804) 788-8811

Clean Virginia Waterways

Rain barrel workshops and supplies, watershed education
<http://www.longwood.edu/cleanva>
 434-395-2602

Chesapeake Bay Foundation

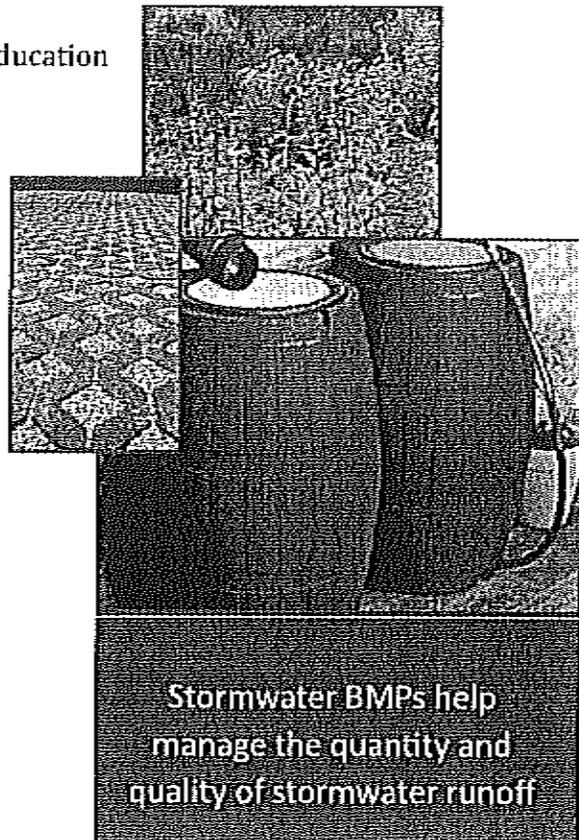
Water Quality, Lawn care tips, Bay education, rain garden & rain barrel information
<http://www.cbf.org>
 804-648-4011

Alliance for the Chesapeake Bay

Bay education, Clean Stream projects, rain barrel and native landscaping information
<http://www.allianceforthebay.org>
 804-775-0951

Environmental Protection Agency (EPA)

Pollution Prevention
<http://www.epa.gov/stormwater>
 800-438-2474



Stormwater BMPs help
 manage the quantity and
 quality of stormwater runoff

WS-2

INFORMATION
PROVIDED AT
MEETING

WS-3

INFORMATION
PROVIDED AT
MEETING

ADJOURNMENT