



Stormwater Utility Credits

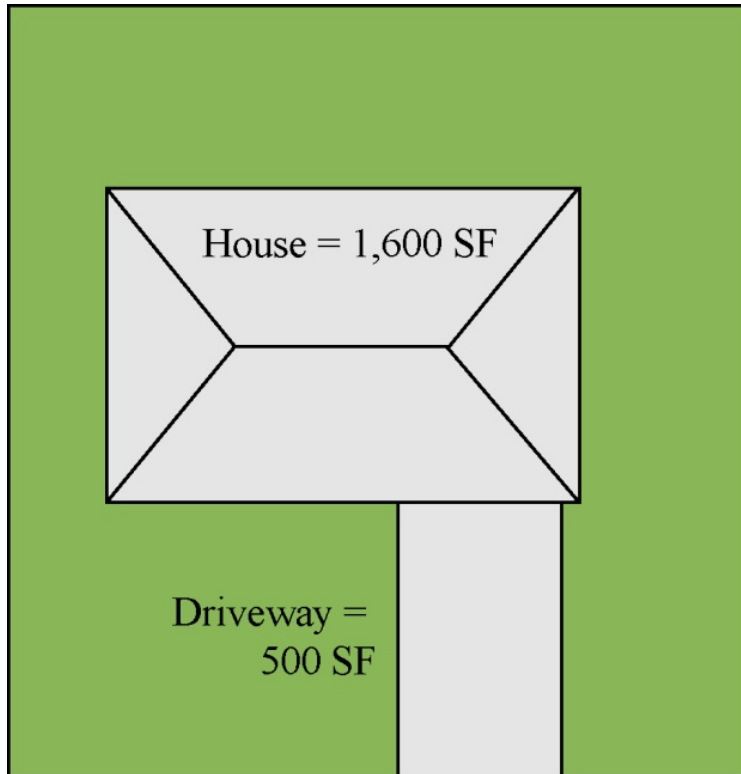


February 25, 2014

Stormwater Utility Overview

- ◆ Effective January 1, 2014 Billed 2X/YR with Real Estate Taxes
- ◆ A stormwater utility is a fee for service and all eligible properties are charged regardless of their tax status. Each eligible property is charged in 500 square foot (SF) increments of impervious surface.
- ◆ Per the City's Stormwater Utility Ordinance impervious surface is defined as *“area covered by hard surfaces such as structures, paving, compacted gravel, concrete, or other man-made features that prevent, restrict, or impede the downward passage of stormwater into the underlying soil.”*
- ◆ To see an estimate of the fee:
 - ◆ <http://gisweb.charlottesville.org/GISViewer/Account/Logon>

Stormwater Utility Overview

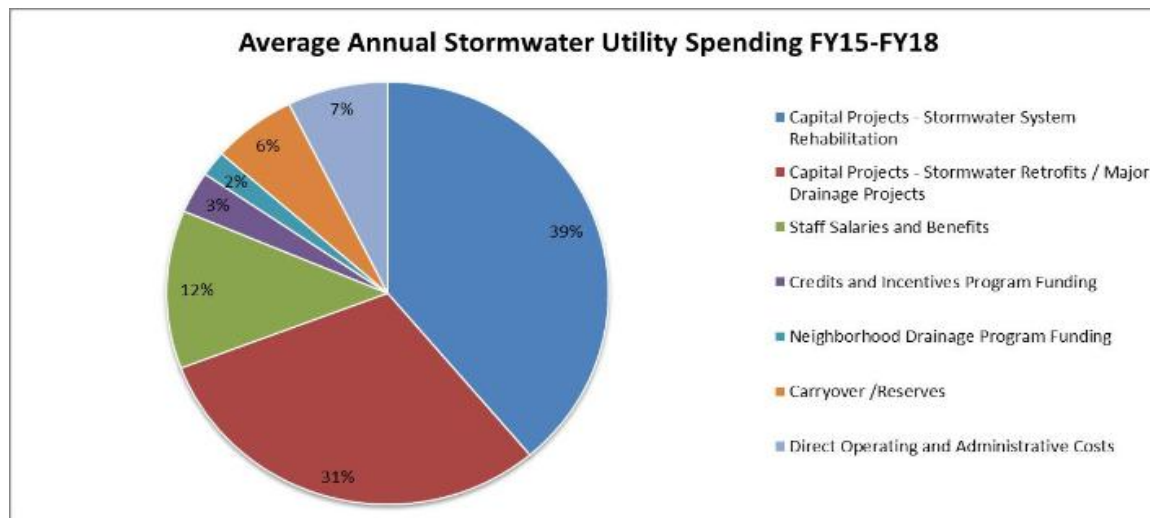


Example Fee Calculation

- Total impervious area = 2,100 SF
- Divide by 500 SF (one billing unit):
 $2,100 / 500 = 4.2$
- Round to the next whole number: 4.2 rounds to 5 billing units
- Multiply the number of billing units by the rate (\$1.20 per billing unit per month) to determine the annual fee: $5 \times \$1.20 \times 12 = \72 annual fee

Water Resource Protection Program Services

- Meeting regulatory requirements contained in the City's stormwater permit
- Repairing and replacing deteriorating stormwater pipes and structures
- Identifying and implementing capital projects, including the following:
 - Stormwater Retrofits to attain mandated pollution reductions
 - Drainage Improvement projects to address local flooding and drainage issues
 - Major Drainage projects to address improvements to the stormwater system
 - Stewardship projects to related to the integrity of the City's water resources
- Developing a City-wide Water Resources Master Plan to identify, select, and prioritize capital projects as described above



Credit Program Background

- ◆ Credit program is required by law. The enabling Virginia Code for the utility is *15.2-2114. Regulation of stormwater.*
- ◆ Code states:
 - ◆ *“A locality adopting such a system **shall provide** for full or partial waivers of charges to any person who installs, operates, and maintains a **stormwater management facility** that achieves a **permanent reduction in stormwater flow or pollutant loadings.**”*
- ◆ To ensure that waivers are provided for facilities that achieve permanent reductions, the City is only granting waivers in the form of credits to the fee for stormwater management facilities that meet the state standards at the time of installation.
- ◆ Currently funded at \$50,000 per year with operational monies.

Credit Eligibility

- ◆ To be eligible for credit, a stormwater management facility must meet the following criteria:
 - ◆ Stormwater Management Facility installed prior to credit application and functioning as designed.
 - ◆ Property owner must own and physically maintain all components of the facility.
 - ◆ Facility designed per City-recognized design standards in place at the time of installation. The facility must be actively maintained to function as designed.
 - ◆ Maintenance agreement including the right of the City to inspect.

Credit Practices Pre 7/1/2014

- ◆ Current state standards are described in the Virginia Stormwater Management Handbook, Volumes 1 and 2, First Edition, 1999
- ◆ Stormwater Management Facilities included in the handbook are:
 - ◆ Retention Basins
 - ◆ Extended Detention Basin
 - ◆ Detention Basin
 - ◆ Constructed Wetlands
 - ◆ Infiltration Practices
 - ◆ Bio-Retention
 - ◆ Sand Filters
 - ◆ Grassed Swale
 - ◆ Vegetated Filter Strip
 - ◆ Manufactured BMP Systems

Credit Practices Post 7/1/2014

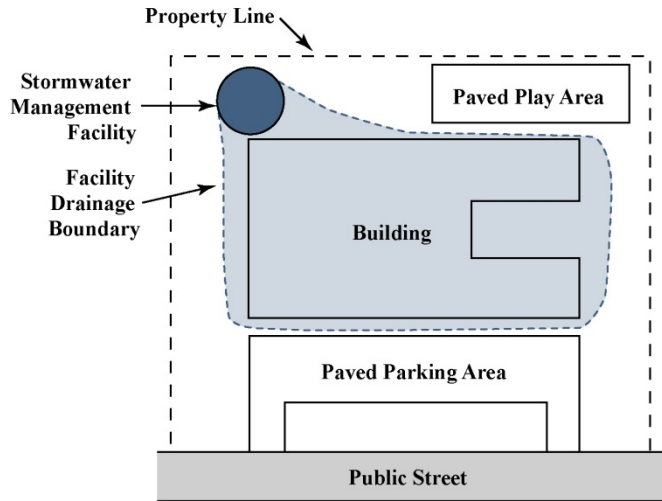
- ◆ State standards effective 7/1/2014 are described on the Virginia Stormwater BMP Clearinghouse Website
- ◆ Stormwater Management Facilities included in the Clearinghouse are:
 - ◆ Rooftop Disconnection
 - ◆ Sheetflow to Vegetated Filter or Conserved Open Space
 - ◆ Grass Channel
 - ◆ Soil Amendments
 - ◆ Vegetated Roof
 - ◆ Rainwater Harvesting
 - ◆ Permeable Pavement
 - ◆ Infiltration
 - ◆ Bioretention
 - ◆ Urban Bioretention
 - ◆ Dry Swale
 - ◆ Wet Swale
 - ◆ Filtering Practice
 - ◆ Constructed Wetland
 - ◆ Wet Pond
 - ◆ Extended Detention Pond
 - ◆ Manufactured BMPs

Credit Percentages

Installation Date	Condition of Development or Voluntary	Percent Credit
Pre-July 1, 2009	Either	20%
Post-July 1, 2009	Voluntary	40% to 100% ¹ Depending on the Level of Pollutant Removal – See Credit Calculator for Post-July 1, 2009 Voluntary Facilities
Post-July 1, 2009 & Pre-July 1, 2014	Condition of Development	30%
Post-July 1, 2014	Condition of Development	40%

- ◆ Credit Hierarchy Explained:
 - ◆ 20% pre 2009 – predates Chesapeake Bay model baseline and cannot be accounted for in meeting TMDL reductions.
 - ◆ 30%-40% for COD – more stringent standards post 7/1/2014. While required, still do reduce pollutants / stormwater and therefore applicable for credit by law. Can account for in TMDL in some cases.
 - ◆ Sliding scale for voluntary – the more you treat, the more credit. Recognizes voluntary resource investment and has value in TMDL accounting. Can be “added on” to COD facility

Credit Example: COD



Total Impervious Area = 15,120 SF

15,120 SF / 500 SF = 30.24

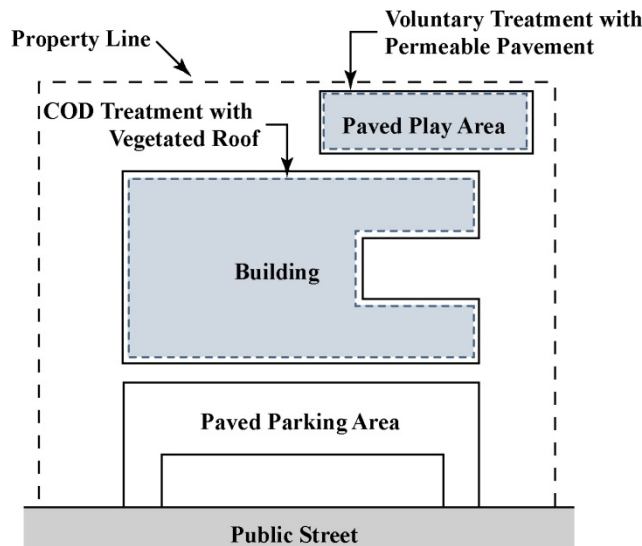
Property Billing Units (BU) = 31

Pre-Credit Annual Fee = (31 x \$1.20 per BU x 12 months) = \$446.40

Impervious Area Treated (Building Rooftop Only) = 7,980 SF

Facility Installation Date	Percent Credit	Percent Credit x Impervious Area (SF) Treated	Adjusted Impervious Area	Adjusted Billing Unit	Post-Credit Annual Fee
Pre-July 1, 2009	20%	7,980 x 20% = 1,596	15,120 - 1,596 = 13,524	13,524 / 500 = 27.05 = 28 BU	28 x \$1.20 x 12 = \$403.20 ((\$43.20 Fee Reduction))
Post-July 1, 2009 & Pre-July 1, 2014	30%	7,980 x 30% = 2,394	15,120 - 2,394 = 12,726	12,726 / 500 = 25.45 = 26 BU	26 x \$1.20 x 12 = \$374.40 ((\$72.20 Fee Reduction))
Post-July 1, 2014	40%	7,980 x 40% = 3,192	15,120 - 3,192 = 11,928	11,928 / 500 = 23.86 = 24 BU	24 x \$1.20 x 12 = \$345.60 ((\$100.80 Fee Reduction))

Credit Example: COD + Voluntary



Total Impervious Area = 15,120 SF

15,120 SF / 500 SF = 30.24

Property Billing Units (BU) = 31

Pre-Credit Annual Fee = (31 x \$1.20 per BU x 12 months) = \$446.40

Impervious Area Treated by Voluntary Facility (Paved Play Surface) = 2,800 SF

Impervious Area Treated by COD Facility (Building Rooftop) = 7,980 SF

Voluntary Facility Installation Date	Percent Credit	Percent Credit x Impervious Area (SF) Treated	Impervious Area Reduction (SF)
After July 1, 2009	88.4% (see calculation below)	2,800 x 88.4% = 2,475	2,475

COD Facility Installation Date	Percent Credit	Percent Credit x Impervious Area (SF) Treated	Impervious Area Reduction (SF)
After July 1, 2014	40%	7,980 * 40% = 3,192	3,192

Voluntary Credit Calculation (After 7/1/2009)

- (A) Facility Efficiency for Level 1 Permeable Pavement (per Virginia BMP Clearinghouse) = **59%**
- (B) Facility Efficiency of **59%** / 100 x 1.76 = **1.038**
- (C) **1.038** - 0.264 = **0.774**
- (D) **0.774** / 0.016 = **48.4**
- (E) 40% + **48.4** = **88.4%** Total Facility Credit

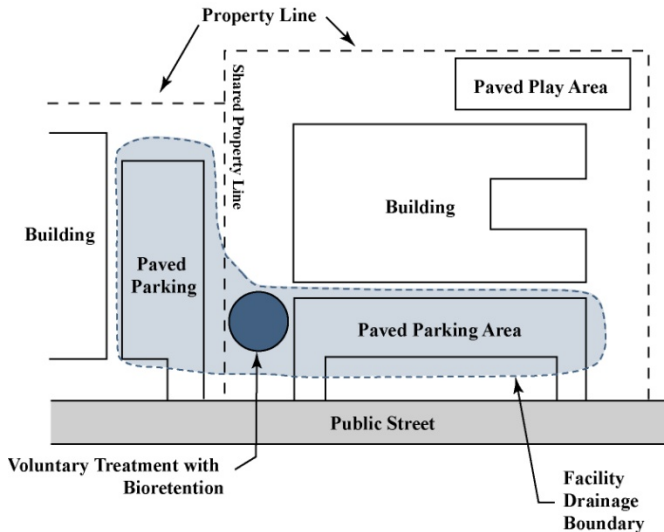
Adjusted Stormwater Utility Fee Calculation for COD and Voluntary Facilities

Adjusted Impervious Area (SF): 15,120 (pre credit) - 2,475 (voluntary reduction) - 3,192 (COD reduction) = 9,453

Adjusted Billing Units: 9,453 / 500 = 18.9 = 19 BUs

Adjusted Annual Stormwater Utility Fee: 19 BU x \$1.20 x 12 = \$273.60 (\$172.80 Fee Reduction)

Credit Example: On/Off Site Voluntary



Voluntary Facility Installation Date	Percent Credit	Percent Credit x Impervious Area (SF) Treated	Impervious Area Reduction (SF)
Onsite After July 1, 2009	100% (see calculation below)	4,340 x 100% = 4,340	4,340
Offsite After July 1, 2009	100% (see calculation below)	4,560 x 100% = 4,560	4,560

Total Impervious Area = 15,120 SF

15,120 SF / 500 SF = 30.24

Property Billing Units (BU) = 31

Pre-Credit Annual Fee = (31 x \$1.20 per BU x 12 months) = \$446.40

Impervious Onsite Area Treated by Voluntary Facility (Parking Lot) = 4,340 SF

Impervious Offsite Area Treated by Voluntary Facility (Parking Lot) = 4,560 SF

Voluntary Credit Calculation (After 7/1/2009)

- (A) Facility Efficiency for Level 2 Bioretention = **90%**
- (B) Facility Efficiency of **90%** / 100 x 1.76 = **1.584**
- (C) **1.584** - 0.264 = **1.32**
- (D) **1.32** / 0.016 = **82.5**
- (E) 40% + **82.5** = **122.5%** = **100%** Total Facility Credit

Adjusted Stormwater Utility Fee Calculation for COD and Voluntary Facilities

Adjusted Impervious Area (SF): 15,120 (pre credit) - 4,340 (voluntary onsite reduction) - 4,560 (voluntary offsite reduction) = 6,220

Adjusted Billing Units: 6,220 / 500 = 12.4 = 13 BUs

Adjusted Annual Stormwater Utility Fee: 13 BU x \$1.20 x 12 = \$187.20 (\$259.20 Fee Reduction)

Credit Application

- ◆ Credit Application Requirements:
 - ◆ Credit Application Form
 - ◆ Drainage Area Map – show property lines, impervious areas, facility drainage area boundaries, and the total impervious cover served by the facility.
 - ◆ Facility Description – include the type of facility, date of installation, and the percent pollutant removal efficiency
 - ◆ Operation and Maintenance Plan – provide a brief summary of how the facility will be operated and maintained to ensure it continues to function as designed.
 - ◆ Photos –a date-stamped image or images showing the facility within one month of the application date.
 - ◆ Stormwater Facility Maintenance Agreement –a copy of the agreement that allows the City access to the site.
 - ◆ Stormwater Management Facility Inspection Form prepared by or under the guidance of a professional engineer, licensed landscape architect, or other professional acceptable to the City.

Credit Application

- ◆ Credit Application Timing:
 - ◆ For 2014 Only – Complete Application by 9/1/2014 will be back credited to first half year bill up to a \$0.00 second half year bill
 - ◆ For 2015 and Beyond – Complete Application by March 1 for first half bill and September 1 for second half year bill

“Once a credit has been approved, the property owner will remain eligible for the credit as long as all conditions of the maintenance agreement are met and the facility passes periodic inspections by City staff. If the property owner fails to submit required documentation or correct deficiencies within the time specified by City staff, the facility will no longer be eligible for credit. If this occurs, the property owner will be required to reapply through the initial credit process.”

Credit Manual

City of Charlottesville
Water Resources Protection Program



Stormwater Utility Fee Credits Manual

Your guide to reducing stormwater utility fees and protecting our City's water resources.



City of Charlottesville, Virginia
605 E. Main St., Charlottesville, VA 22902
www.charlottesville.org/stormwater

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<http://www.charlottesville.org/wrpp>

Incentives Program

- ◆ Administered by TJSWCD and incorporated into their existing Urban Cost Share program.
- ◆ Provides a one time cost share and no credit to the utility fee.
- ◆ Funded at \$32,000 per year from Utility operational funds.
- ◆ Only for new facilities and applicants that start the process with TJSWCD

- ◆ Pet Waste Stations
- ◆ Impervious Surface Removal
- ◆ Turf Conversion to Native Plants
- ◆ Rain Gardens

- ◆ Bioretention
- ◆ Rainwater Harvesting
- ◆ Vegetated Stormwater Conveyances
- ◆ Constructed Wetlands
- ◆ Permeable Pavement