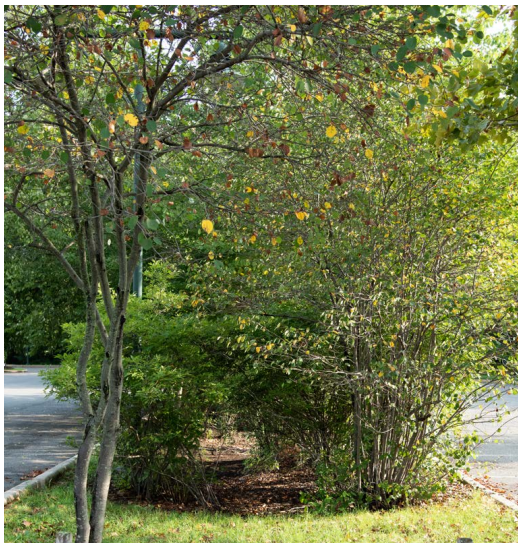


Stormwater Utility Fee Credit Manual

For Residential and Non-Residential Properties

CITY OF Alexandria VIRGINIA



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The City values its water resources, and as a community located along the Potomac River, continues to enhance and protect these valuable resources to meet regulatory requirements as well as the City's local stewardship goals. The City recognizes that certain practices installed or performed by property owners may reduce the impact of a property's stormwater runoff on the City's stormwater management infrastructure and waterways. To acknowledge the positive impacts that these practices can have, and to be consistent with the state code and the City's Stormwater Utility Ordinance (City Code § 5-6-235) this document describes the practices that property owners may perform to earn a fee reduction called a "credit".

Credits

Credits in the above categories may be combined to a maximum 50% annual fee reduction.

Introduction

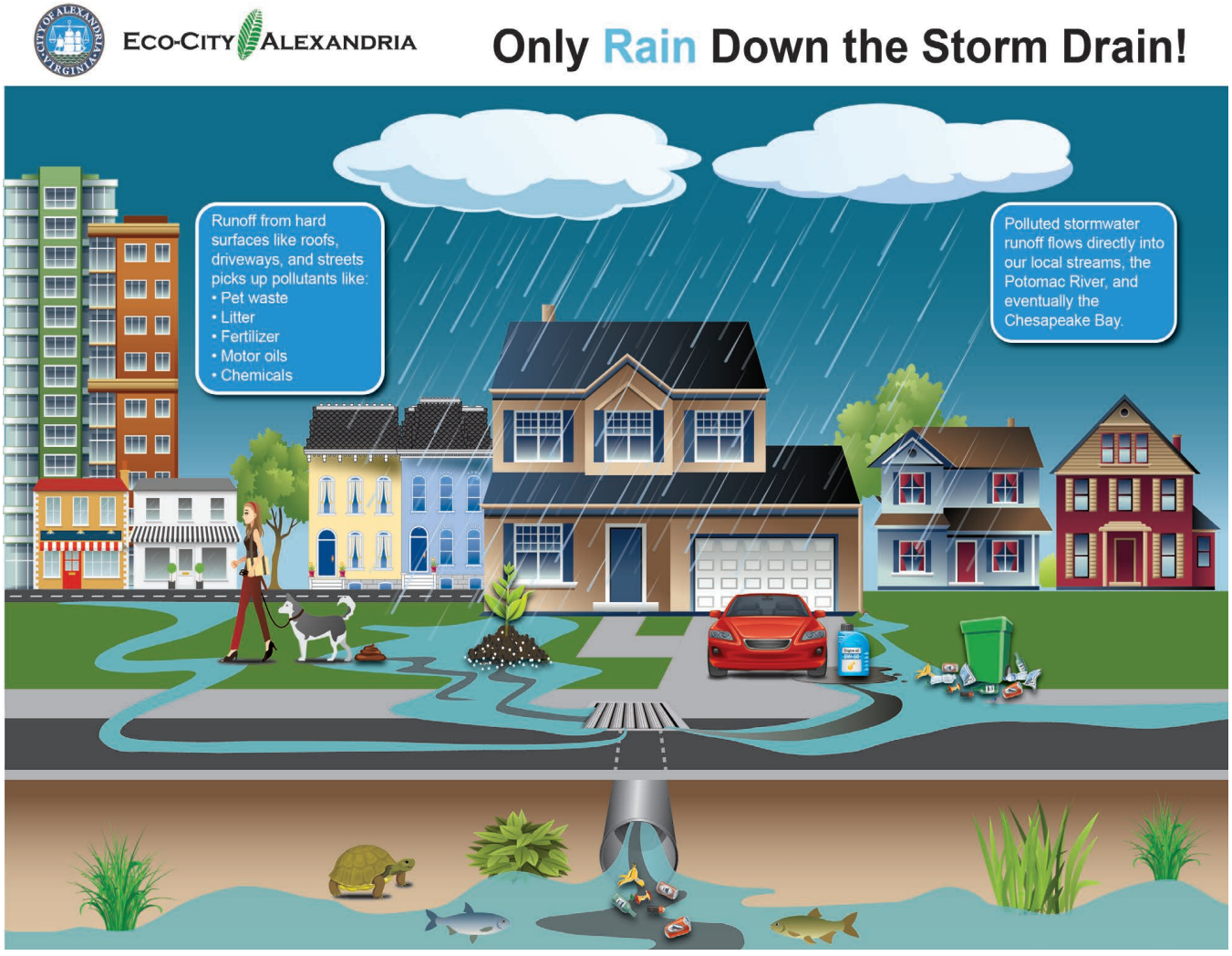
What is Stormwater?

Stormwater runoff is rain or snow melt that does not soak into the ground and flows over land and impervious areas or through open channels and storm sewer pipes into one of our local waterways, such as Holmes Run, Cameron Run, Four Mile Run, Taylor Run, or Timber Branch, and ends up in the Potomac River and eventually the Chesapeake Bay.

In undeveloped areas with abundant native plants and trees, stormwater soaks easily into the ground. However, in developed urban areas with extensive impervious surfaces such as parking lots, sidewalks, roads and buildings, stormwater does not soak into the ground, thus urban areas have more stormwater runoff, which can cause flooding and other storm drainage-related issues.

Urban stormwater often becomes polluted as it runs over the land surface and mixes with potential pollution sources, such as spilled motor oil, pet waste, fertilizer, pesticides, paint, grease, sediment, litter (floatables), and other substances that can be found on the impervious surfaces.

Runoff from impervious areas is the principal factor affecting the quality and quantity of stormwater in urban areas.



Stormwater Services

The City's Stormwater Management Program

The City of Alexandria's stormwater services include three main program areas under the City's Stormwater Management Program: Stormwater Quality, Flooding & Drainage, and Public Infrastructure Operation & Maintenance. In addition, the City takes an active role to be a steward of our local waterways and to comply with Stormwater regulations and mandates.

Stormwater Quality

City services that aim to protect and improve stormwater quality include activities related to engineering and planning, regulations and enforcement, public education and involvement, and installation and maintenance of structural stormwater quality best management practices (BMPs).

Stormwater Quality BMPs include best practices for removing or preventing the pollution of our waterways. BMPs include structural infrastructure like sand filters and treatment devices and green infrastructure that reduces pollution through vegetative filtering and uptake, settling, or infiltration. BMPs also include non-structural practices like routine inspections, limits on fertilizer application, and more.

BMPs are installed by private development or by public development under the Capital Improvement Program (CIP). Stormwater throughout the City is managed by a growing inventory of over 100 publicly-owned and over 500 privately-owned structural stormwater quality BMP facilities. The inventory of BMPs will continue to grow steadily as new development, redevelopment, and CIP projects, are completed over time.

Privately-owned BMPs must be inspected and maintained by the property owner at least once a year. The City periodically inspects them to ensure the stormwater infrastructure is functioning properly and per a maintenance agreement with the City.

Flooding & Drainage

The City's low elevation and proximity to the several waterways and the Potomac River make it susceptible to flooding. Nearly every year, and sometimes several times throughout the year, during periods of heavy rain, strong winds, or quick snow melts, residential and commercial properties are threatened with the potential of tidal, wind-driven, and storm surge flooding from the Potomac River or flooding from its tributaries.

Flooding also occurs along other streams in the City, primarily where older development is constructed near the streams. Performing channel maintenance through dredging or debris removal reestablishes the capacity for channels to adequately convey flows, while investigation, planning, and design elements are required to fix drainage problems.

Public Infrastructure Operation & Maintenance

The City operates and maintains a separate storm sewer system with nearly 200 miles of storm sewer pipes and over 13,000 storm sewer structures. Additionally, it operates and maintains over 560 lane miles and over 100 public structural stormwater quality BMPs.

Maintenance activities include street sweeping, collection of leaves, investigation and cleaning of storm sewer pipes and structures, repair of damaged pipes and structures, and inspection and maintenance of City-owned BMPs. Maintenance reduces the occurrence of drainage issues and property damage.

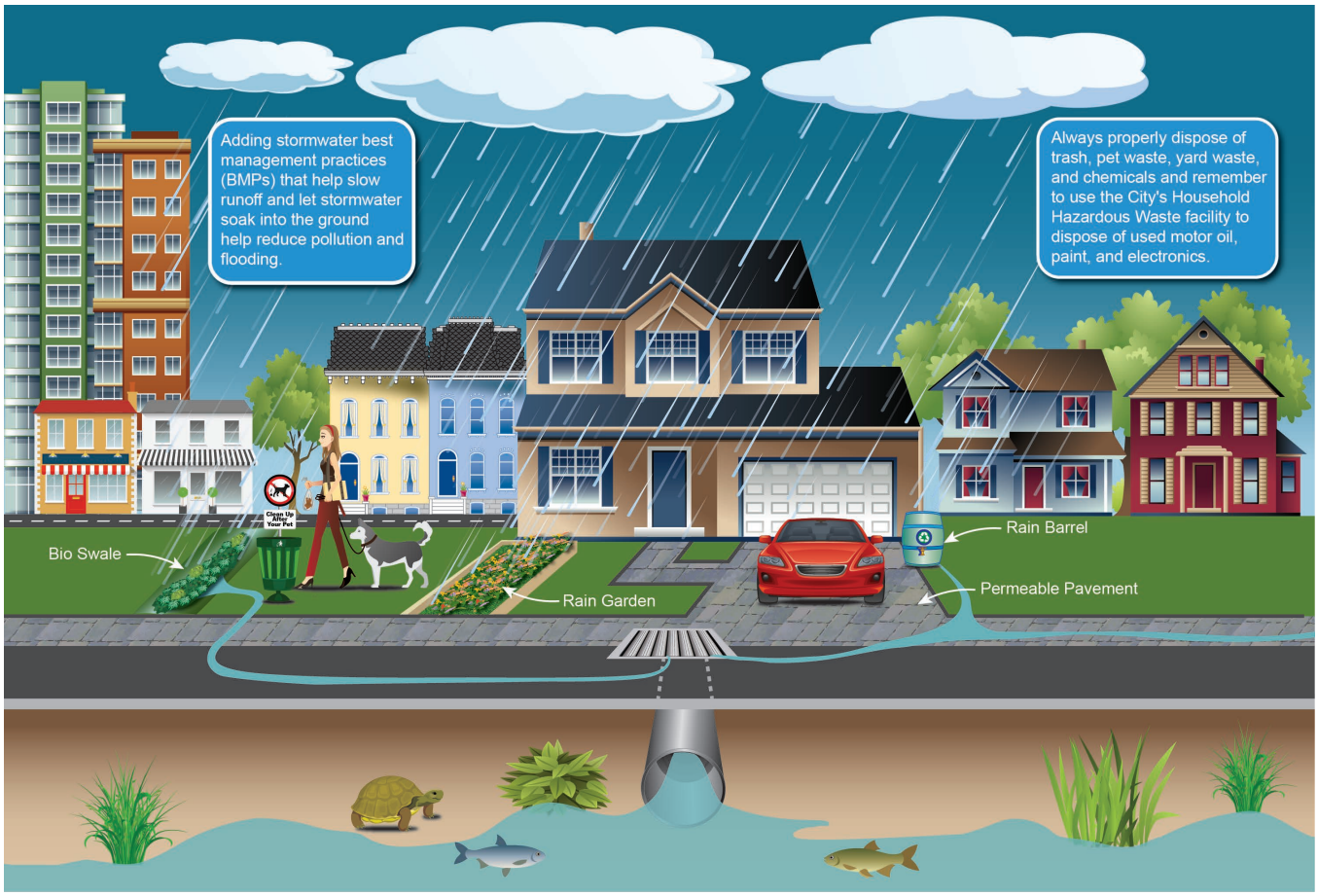
Regulations & Mandates

The City's Municipal Separate Storm Sewer System (MS4) Permit regulates discharges of stormwater from the City's infrastructure and is administered by the Virginia Department of Environmental Quality (DEQ). The MS4 permit mandates compliance activities for the Stormwater Management Program and requires annual compliance reporting on those activities.

The City must also comply with water quality-based regulations and mandates for its stormwater runoff per the City's MS4 permit, the Virginia Stormwater Management Regulations, and the City's Environmental Management Ordinance. Stormwater quality mandates come from the December 2010 establishment of the Chesapeake Bay Total Maximum Daily Load (TMDL) targets for reducing nitrogen, phosphorous, and sediment in waterways. The Mandates were established by the U.S. Environmental Protection Agency under the Clean Water Act to restore the Bay, as well as local streams and the Potomac River.

To meet the Chesapeake Bay Stormwater Mandates, new stormwater quality BMPs and infrastructure is needed to treat stormwater runoff from an area the size of one quarter of the City. Operating and capital costs associated with mandated infrastructure improvements will be incorporated into the overall Stormwater Management Program and will increase as new infrastructure is built, operated, and maintained. Lake Cook is one example of a City BMP constructed to meet Stormwater Mandates and is described on the next page.

The Stormwater Utility Fee is a stable, equitable source of funding for the City's Stormwater Management Program that will be used to meet Chesapeake Bay Stormwater Mandates.



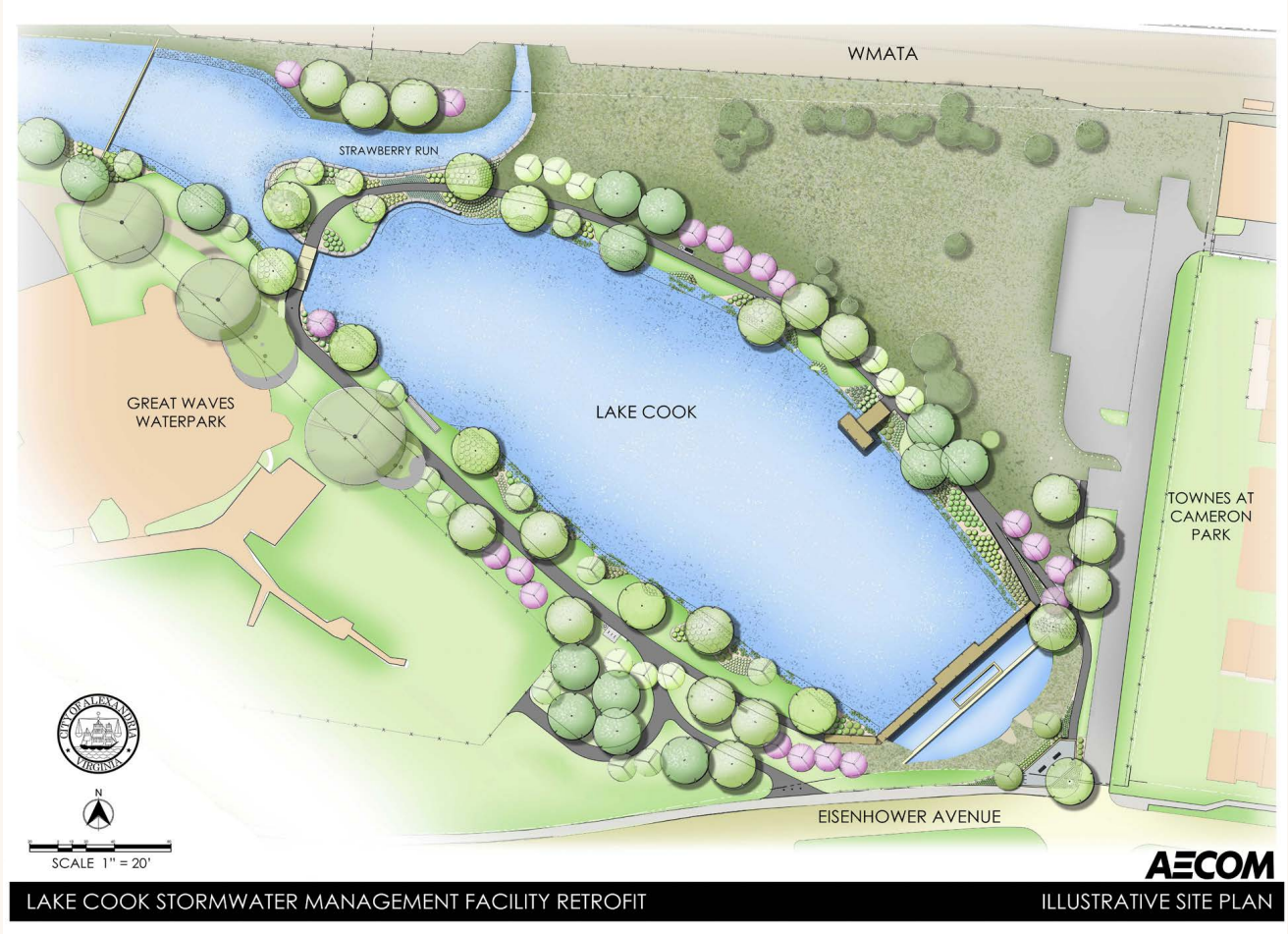
Project Spotlight: Lake Cook Retrofit

Lake Cook is located along Eisenhower Avenue adjacent to Great Waves Waterpark at the downstream end of Strawberry Run. In 2018, the Lake Cook Stormwater Management Project retrofitted the existing fishing pond into a stormwater wet pond. This wet pond acts as a stormwater best management practice (BMP). With the addition of features like a sediment forebay and upflow filter, Lake Cook filters out pollutants, such as nitrogen, phosphorous, and sediment from stormwater that enters the pond.

To offset design and construction costs for this project, the Virginia Department of Environmental Quality awarded the City a $1.5 million Stormwater Local Assistance Fund grant.

The retrofitted Lake Cook project treats stormwater runoff from the equivalent of roughly 390 acres or 295 football fields. This represents roughly 16% of the City's total pollutant reductions required to meet the Chesapeake Bay Stormwater Mandates (see page 6).

The City exceeded the 2018 interim goal for pollution reductions and is well on its way to meeting the next 5-year interim goal. However, progress will get harder as we get closer to our total goal of treating the equivalent of 2,400 acres, 1800 football fields, or one quarter of the City.



The Lake Cook Retrofit is just one example of the type of stormwater quality infrastructure projects that are funded through the Stormwater Utility Fees under the Capital Improvement Program.

Stormwater Utility Fees

Fees for Stormwater Services provided by the City

On May 4, 2017, the City of Alexandria enacted the Stormwater Utility (SWU) Ordinance, with an effective date January 1, 2018, to effectively and equitably fund the City's management of stormwater runoff. The SWU creates a dedicated source of funding to meet long-term stormwater management needs without competing for General Fund support.

Not Your Normal Water Bill

A stormwater utility fee is a fee for service just like fees for services charged by other public utilities.

- The Stormwater Utility Fee funds the Stormwater Management Program and Stormwater Mandates described in the previous pages.
- It is not the service fee for drinking water from Virginia American Water.
- It is not the service fee for treatment of sewage from your kitchen sinks and bathroom fixtures from Alexandria Renew Enterprises. It also does not fund AlexRenew's RiverRenew project that is designed to address combined sewer upgrades that prevent millions of gallons of sewage mixed with rainwater from contaminating our waterways.

Billing

The SWU fee is billed twice a year by the City of Alexandria concurrent with Real Estate taxes, with the first-half payment due in June, and the second-half payment due in November. If there is an error on your bill, you can appeal in May and June within 30 days of billing.

Funding the City's Stormwater Services

Funding from SWU Fees can only be used for stormwater management, with the rate of the fee being based on the cost of providing stormwater management services in the City's Stormwater Management Program.

Impervious Area

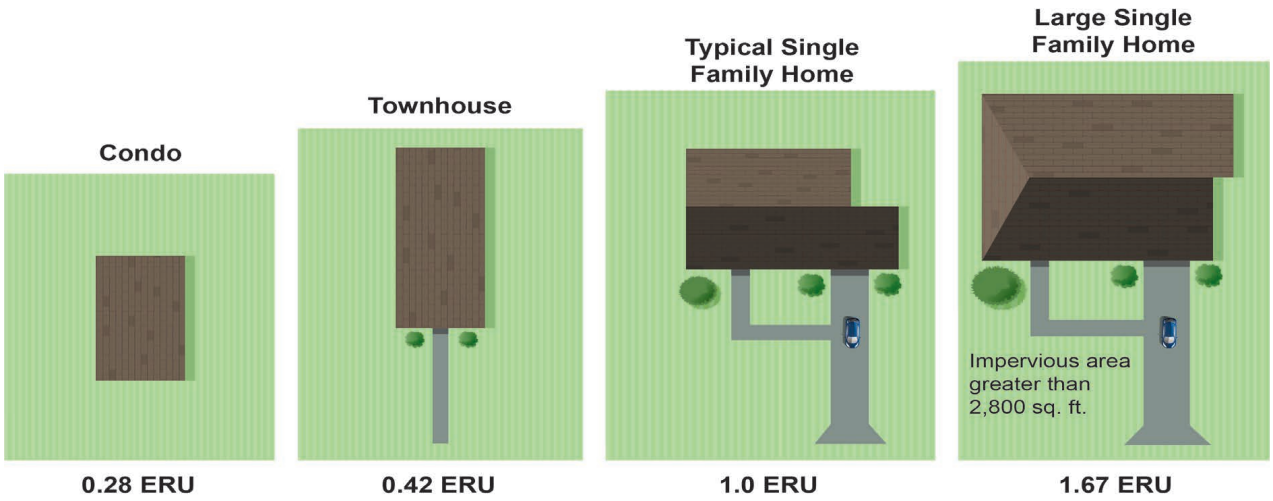
The SWU Fee distributes this public cost across developed properties generally based on the amount of their impervious area. Impervious area is the primary factor affecting the amount of stormwater generated on a property and is used as an indicator of the property's relative share of the City's Stormwater Management Program costs.

Impervious areas are surfaces composed of any material that significantly impedes or prevents natural infiltration of water into the soil. Impervious surfaces include, but are not limited to: roofs, buildings, streets, parking areas, and any concrete, asphalt, or compacted gravel surfaces.

The amount of fee charged will depend on a property's type and its impervious area. The City has developed two fee structures – one for residential properties and one for non-residential properties.

All fees are tied to a billing unit called an Equivalent Residential Unit (ERU). The billing unit was determined based on an analysis of the typical amount of impervious area on single family detached homes in Alexandria in 2016. The stormwater utility fee is calculated as the product of the billing units and the fee rate, which is reviewed annually and set by the city council to be effective July 1 each year.

Residential Properties including condominiums, townhouses, and single family homes pay a tiered, flat fee depending on their property type. The property classification is generally based on the property's primary property class land use description. In Fiscal Year 2018, the stormwater utility fee rate was $140.00 per billing unit or ERU. This fee will be periodically increased as additional investments to reduce the risk of flooding and improve water quality are installed and the costs to maintain these increase.



Non-Residential Properties include commercial, industrial, institutional, multi-family, non-profit, faith-based, and other properties not included in the single family category. The fee structure for non-residential properties is calculated using a variable method, meaning the fee will be calculated individually for each property. The total impervious area for each non-residential property is calculated using geographic information system (GIS) analysis, aerial photography, as-built drawings, final approved site plans, building permits, field surveys, or other appropriate engineering and mapping analysis tools. The total impervious area is then divided by the billing unit that equates to 2,062 square feet (sq. ft. or ft^2) of impervious cover or 1 Equivalent Residential Unit (ERU).

Calculate Non-Residential Fee Example:	
Building and parking lot impervious area	6,168 sq. ft.
1 billing unit	2,062 sq. ft.
Total billing units	6,168/2,062 = 3 ERU
Multiply by rate for 1 billing unit	3 x $140*
Total fee	$420/yr*

*Example uses the Fiscal Year 2018 rate

Impervious Area = 6,168 sq. ft.

Flat Credit Menu

For Townhouses and Detached Single Family Homes

Install and maintain a stormwater management practice or perform an eligible landscaping practice to earn up to 30% off your total annual Stormwater Utility Fee. Existing stormwater management practices may also be eligible for credit. All practices must meet a city-recognized design standard to qualify. Combine credits from the flat credit menu and get the maximum 30% fee reduction.

Practice	Credit
No Fertilizer Pledge	3%
Rain Barrel	2% each, up to 4
Cistern	10%
Conservation Landscaping*	10%
Mandatory Detention	10%
Dry Well or Infiltration Practice	15%
Rain Garden	15%
Flow Thru Planter Box	15%
Permeable Pavement*	20%
Vegetated Green Roof**	20%

*Minimum surface area applies. Single-family homes: 300 ft^2, Townhouses: 150 ft^2
**Minimum surface area applies: 100 ft^2

No Fertilizer Pledge 3%

Make and uphold a No Fertilizer Pledge for a 3% reduction of your total annual fee.

I PLEDGE TO MAINTAIN A DENSE COVER OF GRASS, GARDENS, OR CONSERVATION LANDSCAPING WITHOUT USING ANY FERTILIZERS.

A No Fertilizer Pledge is made by the homeowner at the beginning of each year and applies to the entire property. Credit will be awarded the following year pending homeowner verification that they upheld the pledge for the entire year. The No Fertilizer Pledge is effective and renewable on an annual basis.

Rain Barrels 2% - 8%

Install and maintain rain barrels on your property for up to an 8% reduction of your total annual fee (2% for each, up to 4 rain barrels). Rain barrels capture roof runoff which can then slowly empty into the surrounding landscape or be reused for watering outdoor plants and lawns.

Cistern 10%

Install and maintain a cistern on your property for a 10% reduction of your total annual fee. A cistern is like a rain barrel because it captures roof runoff in a tank which can then slowly empty into the surrounding landscape or be reused for outdoor irrigation/watering and/or for selected

Indicates a Green Infrastructure practice which protects, restores, and mimics the natural water cycle.

indoor uses. If stored runoff is used for indoor purposes, specific measures may need to be taken to improve water quality. Cisterns are much larger than rain barrels and can store hundreds of gallons of water. They are often installed underground.

Conservation Landscaping 10%

Perform conservation landscaping on your property annually for a 10% reduction of your total annual fee. Conservation Landscaping is the conversion of lawn and impervious area into mulched beds planted with native perennial plants, shrubs and/or small trees that benefit stormwater quality and quantity by retaining rainfall and absorbing runoff from adjacent turf or impervious surfaces. Well over half of the plants used in conservation landscaping should be native species, but ornamental species are acceptable if they are not invasive.

Combine practices on the Flat Credit Menu for up to 30% off your total Stormwater Utility Fee!

Mandatory Detention 10%

Installation and maintenance of detention facilities as a mandatory condition of development or redevelopment on a single family detached property or townhouse and serving only that property are eligible for a flat 10% reduction of the property owner's total annual fee. Facilities serving multiple properties may qualify for a calculated credit described on page 14.

Typically, a mandatory detention facility is a large underground storage pipe or tank that temporarily holds runoff during rain events and then discharges it slowly to the storm sewer system. A detention facility is usually dry during non-rainfall periods, and the time it takes to drain after a rain event varies based upon the designed holding time. In Alexandria, mandatory detention facilities on single family homes are commonly installed during development or redevelopment to reduce the risk of localized flooding.

Dry Well or Infiltration Practice 15%

Install and maintain a dry well or infiltration practice for 15% reduction of your total annual fee. A dry well / infiltration practice is created by excavating a shallow trench that is filled with stone and used to temporarily store runoff, so it can soak into the ground. Some technical assistance may be required for installation if the practice will be installed close to a basement or foundation.

Flat Credit Menu

Rain Garden 15%

Install and maintain a rain garden on your property for a 15% reduction of your total annual fee. A rain garden uses vegetation and soil media to aid in the infiltration and storage or rainfall and stormwater runoff. A rain garden has a shallow depression in the ground that allows stormwater to collect and pool. Natural underlying soils are replaced with a soil mix to increase infiltration and a mix of native plants filter out pollutants.

Flow Thru Planter Box 15%

Install and maintain a Flow Thru Planter Box on your property for a 15% reduction of your total annual fee. Flow Thru Planter Boxes are similar to rain gardens except they are adapted to fit into "containers" within urban landscapes. Stormwater planters are also known as vegetative box filters or foundation planters. They take advantage of limited space available for stormwater treatment by placing a soil filter in a container located above ground or at grade in landscaping areas (often between buildings and roadways). The planter box is typically contained in a precast or cast-in-place concrete vault and has an underdrain.

Green Roof 20%

Install and maintain a vegetated green roof on your property for a 20% reduction of your total annual fee. A green roof is a system that is installed on the roof of a structure and stores and filters rainfall using a layer of soil media and specialized vegetation. Green roofs must be designed and installed by a qualified designer and contractor.

Permeable Pavement 20%

Install and maintain a permeable pavement system for a 20% reduction of your total annual fee. Permeable Pavement is an alternative to traditional pavement. Rainfall and runoff onto permeable pavement is temporarily stored and infiltrated into the ground. Typically, in residential applications, the surface is made up of interlocking paver blocks. An underlying stone reservoir, typically 6" thick provides storage and aids in infiltration. An underdrain is installed where water infiltration into the soil is slow.

Indicates a Green Infrastructure practice which protects, restores, and mimics the natural water cycle.

Documentation Requirements

Eligible property owners seeking a credit for a BMP listed in the Flat Credit Menu must submit a completed credit application form annually. At a minimum, annual documentation includes a homeowner self-certification statement that the practices have been inspected within the past 12 months, that corrective maintenance has been completed, and that the practices are properly functioning. Regular maintenance ensures that practices listed do not generate additional pollutants, become nuisances, or pose safety issues, and that they function properly. Annual submission of date-stamped photos of the practices is also required. The City has prepared a guide to assist homeowners with the inspection and self-certification of the flat credit menu practices, which the homeowner may be asked to provide during application review if there are any questions.

An annual application is required for all credits

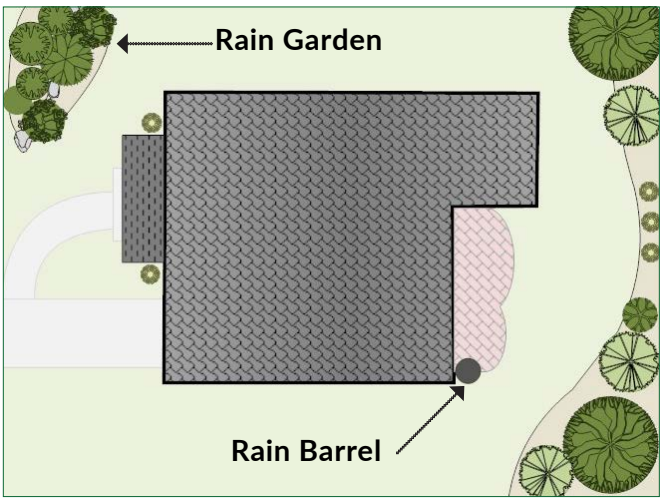
During the application process and in the first year a practice is claimed for credit, the homeowner must provide supporting documentation to demonstrate that the practice meets City-recognized design standards. In general, the City recognizes the design and construction standards and specifications for stormwater management BMPs that have been approved for use in Virginia by the Virginia Department of Environmental Quality, which can be found at www.swbmp.vwrrc.vt.edu on the Virginia Stormwater BMP Clearinghouse website. The City may consider alternate design guides written specifically for homeowners in mind. For helpful links and resources refer to page 34.

Example Credit Calculation

Step 1: Calculate Percentage of Fee Reduction

A detached single-family property with less than 2,800 square feet of impervious area has a rain garden and a rain barrel. Both creditable practices help manage drainage on their property. The property owner inspects and maintains them from year to year. The total flat credit is 17% for these two practices.

Practice	Flat Credit
Rain Garden	15%
Rain Barrel	2%
Total	17%



Step 2: Calculate Amount of Credit

The homeowner receives an annual stormwater utility fee of $140.00*. Based on the percentage fee reduction from step 1, the City calculates the stormwater utility fee credit to be $23.80.

Percentage Fee Reduction		Stormwater Utility Fee		Amount of Credit
17%	x	$140.00*	=	$23.80

*Example uses the Fiscal Year 2018 rate

Mandatory Structural Stormwater Facilities

Credits for All Properties

Mandatory Structural Stormwater Facilities are those whose design, construction, and maintenance were required as a condition of the property's development. Eligible structures fall into two categories: Stormwater Quality BMPs and Detention Facilities. Property owners of all property classifications of the Stormwater Utility are eligible for credit, as outlined below. Mandatory Stormwater Quality BMPs and detention facilities installed for a single family home and not part of a larger plan of development may receive credit under the flat credit menu.

Stormwater Quality BMPs up to 20%

Stormwater Quality BMPs should achieve a permanent reduction in pollutant loadings. The list of approved water quality BMPs include, but are not limited to, the following facilities that may be eligible for up to a twenty percent (20%) reduction of the total annual fee:

- Bioretention Facility
- Vegetated Filter Strip
- Vegetated Green Roof
- Retention Pond (Wet Pond)
- Planter Box Filter
- Sand Filter
- Permeable Pavement Systems
- Proprietary treatment devices

In addition, in cases where one of these property classes is served by a BMP owned by a separate entity or a homeowner's association, the property owner may receive credit for the BMP if they demonstrate that they share in the maintenance obligation and costs of the BMP.

The City of Alexandria will calculate the percent fee reduction for each installed and functioning mandatory stormwater quality BMP based on the amount of impervious area on the site that is treated by the BMP. The amount of the credit will be computed by multiplying the percent fee reduction by the property's SWU Fee.

BMP Credit Formula

The City of Alexandria will calculate the percent fee reduction for mandatory stormwater quality BMPs to the nearest tenth of a percent using the following formula:

% Fee Reduction

=

20% Maximum Fee Reduction x % of Site Impervious Area Treated

Detention Facilities up to 10%

Mandatory Stormwater Detention Facilities eligible for SWU Fee credit are those that property owners were required to build or install as a condition of their property's development.

Detention Facilities should achieve a permanent reduction in stormwater flow rate. Approved detention facilities may be eligible for up a ten percent (10%) reduction of the total annual fee and include, but are not limited to detention ponds (dry ponds) and detention chambers.

Detention (Dry) Pond

A detention pond temporarily stores runoff for a specified period and then discharges that runoff through a hydraulic outlet structure, often some type of riser structure, to a downstream conveyance system. A detention pond is usually dry during non-rainfall periods, and the time it takes to drain after a rain event may vary based on the designed holding time. Installation of dry detention basins often pre-dates the City's current stormwater quality requirements, and as such, for purposes of this manual, are only considered to be stormwater quantity control facilities.

Detention Chamber

A detention chamber is an underground vault that temporarily stores runoff for a specified period of time and then discharges that runoff through a hydraulic outlet structure to a downstream storm sewer system. A detention chamber is usually dry during non-rainfall periods, and the time it takes to drain after a rain event may vary based on the designed holding time. Detention chambers are often found under parking lots in larger developed properties. Like dry ponds, detention chambers are only considered to be stormwater quantity control facilities for purposes of this manual.

All structural practices must be functioning to be eligible for credit. Annual Certification and Application is Required.

The City of Alexandria will calculate the percent fee reduction for each installed and functioning mandatory detention facility based on the amount of impervious cover on the site that drains to the facility. The amount of the credit will be computed by multiplying the percent fee reduction by the property's SWU Fee.

Detention Credit Formula

The City of Alexandria will calculate the percent fee reduction for mandatory detention facilities to the nearest tenth of a percent using the following formula:

% Fee Reduction

=

10% Maximum Fee Reduction x % of Site Impervious Area Draining to Facility

Mandatory Structural Facilities

Eligibility Checklist

A mandatory BMP or detention facility is eligible for credit when it meets all the following criteria:

- ❑ Proper Design The stormwater facility must have been designed and constructed according to City-recognized design standards.
- ❑ Installation Completed Stormwater facilities must have been installed prior to application for Stormwater Utility credit and the City must have received a valid certification that the BMPs have been installed according to the approved design.
- ❑ Maintenance Obligation The property owner must demonstrate that they are party to a BMP maintenance agreement or enter into a maintenance agreement with the City for BMPs owned by the property owner that includes the right of the City to conduct periodic inspections. The City may require that an existing agreement be modified for the facility to be eligible for credit. All components of the facility must be physically maintained. Aesthetic maintenance alone does not qualify an owner for credit.
- ❑ Proper Functioning A BMP or detention facility must be properly functioning as evidenced by annual inspection and actively maintained to correct deficiencies prior to re-inspection and annual certification for credit.

Documentation Requirements

Annual application is required for all credits. To apply for annual SWU Fee Credit, the property owner or applicant must submit a completed SWU Fee Credit Application Form and a certification of the Facilities in the credit application signed by a qualified professional.

Operation and Maintenance Agreement

To be eligible for SWU Fee Credit under this category, the property owner must have an executed and recorded Stormwater Management / BMP Facilities Operation and Maintenance Agreement. During review of the credit application, the City will determine if an executed and recorded Maintenance Agreement is on file with the City for the BMP(s) or detention facilities included in this application. If it is determined that this requirement is outstanding, the applicant will be informed and presented with an agreement signed by the director of T&ES. The applicant must execute (sign in the presence of a notary), record the maintenance agreement in the Alexandria Circuit Court Clerk's Office Land Records, and provide proof of recordation along with a copy of the recorded maintenance agreement to T&ES.

Annual Inspection and Certification

Regular maintenance ensures that BMPs do not generate additional pollutants, become nuisances, or pose safety issues, and that they function properly. When maintenance problems do exist, they are most often less costly to correct when they are caught early. BMP maintenance is not only an integral part of BMP ownership, but is also a requirement of the City's local stormwater program. City ordinance 13-109(G) states that all stormwater BMPs must be adequately maintained by their owners to ensure that the BMPs function as designed. Facility inspection components should be consistent with the state and local BMP regulations.

The property owner(s) applying for credit must provide a certification that each structural stormwater management facility (stormwater quality BMP or detention facility) is maintained and functioning to its design capability. The certification must be completed by a qualified professional (a professional

engineer, architect, or landscape architect pursuant to Code of Virginia § 54.1-400; a person who works under the direction and oversight of the licensed professional engineer, architect, or landscape architect; or a person who holds the Certified Stormwater Inspector certificate of competence through Virginia DEQ). The certification must be based on a current inspection (i.e. within 12 months prior to the date of application) by a qualified professional using facility inspection forms comporting to those found in the Virginia BMP Handbook, or inspection forms that are equivalent to the forms used by the City which can be found at alexandriava.gov/3876.

The Owner/Applicant is required to ensure proper functioning and maintenance of stormwater management facilities per 13-109(G) and keep inspection records per the BMP Regulations. As part of the review process, the City reserves the right to request that the Owner/Applicant provide inspection documentation (i.e. report, date-stamped pictures) that forms the basis of the certification of maintenance and functioning to design capability.

The City reserves the right to request inspection documentation to be provided to support the credit application review. The property owner or applicant is responsible for maintaining inspection records for their facilities per BMP regulations.

Remember, only the impervious area treated by the facility, and not the entire impervious area of a property, is eligible for a credit!

Example Credit Calculation

Step 1: Calculate Percentage of Fee Reduction

An apartment complex contains a wet pond (a stormwater quality BMP) that treats stormwater from structures and paved areas. Based on submitted plans, the City determines the pond treats 89.8% of the property's impervious area.

Maximum Credit Percentage		Impervious Area Treated		Percentage Fee Reduction
20%	x	89.8%	=	18.0%

Step 2: Calculate Amount of Credit

The apartment complex receives an annual stormwater utility fee of $4,000.00. Based on the calculated credit percentage, the City calculates the property's stormwater utility fee credit to be $720.00.

Percentage Fee Reduction		Stormwater Utility Fee		Amount of Credit
18.0%	x	$4,000.00	=	$720.00

The property's final stormwater utility fee after the credit is applied is $3,280.00.

Green Infrastructure

For Condominiums and Non-Residential Properties

Green Infrastructure (GI) BMPs are structural stormwater quality BMPs that are designed to reduce stormwater runoff by replicating the site's pre-development hydrology, or overland flow patterns. Residential Condominium and Non-Residential property owners are eligible for stormwater utility fee credit for voluntarily installed Green Infrastructure BMPs up to a maximum 20% credit. To be eligible for credit, practices must be designed and conform to the design standards and specifications approved for use in Virginia and available on the Virginia BMP Clearinghouse website.

The City of Alexandria will calculate the percent fee reduction for each installed and functioning Green Infrastructure BMP based on the amount of impervious area on the site that is treated by the BMP. The amount of the credit will be computed by multiplying the percent fee reduction by the SWU Fee for the non-residential property or each SWU Fee for each residential condominium unit.

BMP Credit Formula

The City of Alexandria will calculate the percent fee reduction for voluntary green infrastructure BMPs to the nearest tenth of a percent using the following formula:

% Fee Reduction

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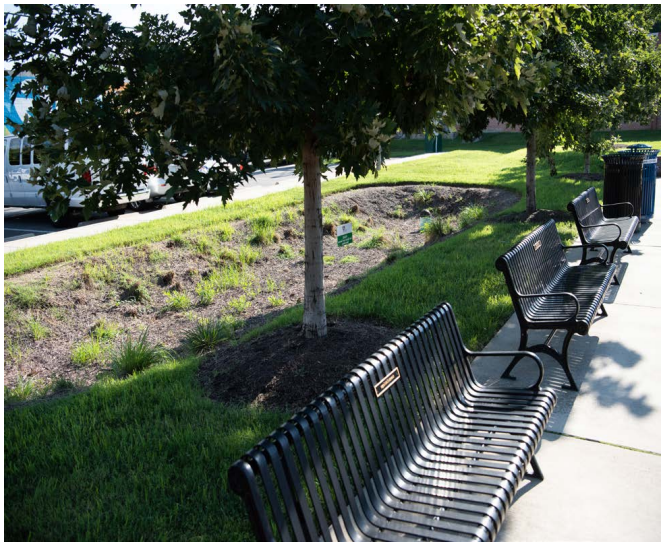
20% Maximum Fee Reduction x % of Site Impervious Area Treated

Voluntary Green Infrastructure BMPs up to 20%



Remember, only the impervious area treated by the facility, and not the entire impervious area of a site, is eligible for a credit.

Bioretention

Bioretention practices use vegetation and soil media to aid in the infiltration and storage of rainfall and stormwater runoff. Natural underlying soils are replaced with a soil mix to increase infiltration and a mix of native plants are planted to help filter out pollutants. In areas where soil permeability is low, an underdrain may also be installed in the underlying soil to aid infiltration.

Dry Swales

Dry swales are similar to bioretention cells but are shallower and configured as linear channels covered with turf instead of mulch and vegetation. Rainfall and stormwater runoff enter the channel and are temporarily stored and then filter through

the turf and underlying soil mix. The underlying soil mix is a special mix that is installed below the channel to aid in infiltration.

Grass Channels

Grass channels provide stormwater runoff filtering and increased infiltration. The amount of stormwater runoff quality and quantity control depends on the type of underlying soil. Grass channels are linear practices and can be applied in a series of multiple channels in a row. The total area contributing to one grass channel should not exceed 5 acres.

Infiltration Practices

Infiltration practices use temporary surface or underground storage to allow stormwater runoff to infiltrate into the underlying soils. Infiltration practices involve installing a series of layers of rock and soil media below the soil surface. Infiltration practices have the greatest runoff reduction capability of any stormwater practice and are suitable for use in many residential and other urban areas where measured soil permeability rates exceed ½ inch per hour. Property owners interested in installing an infiltration practice must conduct a soil permeability analysis.

Permeable Pavement

A permeable pavement system allows rainfall and stormwater runoff to infiltrate into the ground. A permeable pavement surface may be made of paver blocks or permeable materials, such as porous concrete or porous asphalt. A stone reservoir is included below the surface to store stormwater and allow it to infiltrate. An underdrain may be required.

Rainwater Harvesting

Rainwater Harvesting Practices are used to capture roof runoff in a barrel or tank which can then slowly empty into the surrounding landscape or be reused for outdoor irrigation/watering and/or for selected indoor uses. If stored runoff is used for indoor purposes, special measures must be taken to improve water quality.

Green Infrastructure

There are two types of rainwater harvesting practices that property owners can consider installing – rain barrels and cisterns. The practices operate similarly, but cisterns are much larger than rain barrels and can store hundreds of gallons of water. The practice must capture runoff for reuse from at least the first one inch of a rain storm to be eligible for credit.

Rooftop (and Impervious Area) Disconnection

Rooftop Disconnection practices manage the stormwater runoff coming from rooftop drains by slowing the water to allow for greater infiltration, filtration, and in some cases reuse. There are two types of rooftop disconnection including (1) simple disconnection, where rooftop drains are directed towards pervious areas like turf, and (2) disconnection which leads to another green infrastructure practice for additional water quality and quantity treatment.

Property owners must utilize the second type of disconnection and include other practices to be eligible for SWU Fee credit -- such as a dry well, rain garden, storage in a rain barrel, etc. These additional green infrastructure practices, combined with rooftop disconnection, increase the treatment of runoff. In many cases, simple disconnection may conflict with code requirements due to the potential impacts on downgradient properties.

Sheet Flow to a Vegetated Filter Strip or Conserved Open Space

Green Infrastructure BMPs that fall under the category of Sheet Flow to a Vegetated Filter Strip or Conserved Open Space slow stormwater runoff velocities allowing sediment and attached pollutants to settle and/or be filtered by vegetation.

Sheet flow is overland flow of stormwater that is diffuse and spread out over an area of several feet. Concentrated flows are generally discharged from a single drainage point, such as a down-spout.

There are two types of these practices that can be eligible for credit. The first is Conserved Open Space, which involves conserving space with undisturbed soils and native vegetation. The second is Vegetated Filter Strips, which involves amending current soils with soils with better infiltration and covered with dense turf or landscaped with herbaceous cover, shrubs, and

trees. If stormwater is concentrated, a different green infrastructure BMP must be used.

Soil Compost Amendment

Soil Compost Amendments can be applied to compacted soils to increase the amount of rainfall and stormwater runoff that can infiltrate into the soil. Types of soil amendments include tilling to alleviate compaction or incorporating compost into the existing soil to increase infiltration properties. Property owners will need to have a soil test conducted to determine the level of compaction and appropriate soil amendment practice. Soil Compost Amendments must be used along with other Green Infrastructure practices, such as rooftop disconnection, vegetated filter strips, or grass channels to be eligible for credit.

Vegetated Roof

A vegetated green roof is a system that is installed on the roof of a structure and stores and filters rainfall using a layer of soil media and specialized vegetation. These practices must be designed and installed by a qualified designer and contractor.

Wet Swales

Wet swales are a cross between a wetland and a dry swale. Wet swales are made up of saturated soils and wetland vegetation that provide moderate pollutant reduction through gravitational settling, biological uptake of pollutants through the vegetation present, and microbial activity. Wet swales typically work well in areas with a high water table or in soils that have low permeability that may create standing water conditions.

Annual Application is Required for all Credits

Eligibility Checklist

Installation and maintenance of a voluntarily built green infrastructure practice is eligible for credit when it meets all the following criteria:

- ❑ Proper Design The stormwater facility must have been designed and constructed according to City-recognized design standards.
- ❑ Installation Completed Stormwater facilities must have been installed prior to application for Stormwater Utility credit and the City must have received a valid certification that the BMPs have been installed according to the approved design
- ❑ Maintenance Obligation The property owner must demonstrate that they are party to a BMP maintenance agreement or enter into a maintenance agreement with the City for BMPs owned by the property owner that includes the right of the City to conduct periodic inspections. The City may require that an existing agreement be modified for the facility to be eligible for credit. All components of the facility must be physically maintained. Aesthetic maintenance alone does not qualify an owner for credit.
- ❑ Proper Functioning A BMP or detention facility must be properly functioning as evidenced by annual inspection and actively maintained to correct deficiencies prior to re-inspection and annual certification for credit.

Green Infrastructure

Documentation Requirements

The intent of this credit is to offer a reduction in the stormwater utility fee for a voluntarily installed BMP that helps the City meet Federal and State Chesapeake Bay pollution reduction goals. The documentation required will be based in part on the documentation required of the City to document progress toward these goals. Documentation on voluntarily installed green infrastructure BMPs is required in two stages. In the first stage, the applicant must submit documentation relating to the initial planning, design, and construction of the best management practice. The documentation must show that the BMP complies with the Virginia BMP Clearinghouse standards and specifications and documents pollution reduction. In the second stage, the credit application becomes the same as that for mandatory BMPs and detention facilities installed in an area with a common plan of development.

Planning, Design, and Construction

Voluntarily installed green infrastructure BMPs must comply with zoning ordinance regulations. Some practices, especially if disturbing over 2,500 square feet or if installed on a property that is part of an existing site plan, may be required to go through the City's collaborative development review process and/or submit a site plan amendment. Interested parties should contact stormwater@alexandriava.gov for assistance with this process. For more information about the development process, visit the City's website at alexandriava.gov/Development or call 703.746.4666.

Annual SWU Fee Credit Documentation

To apply for annual SWU Fee Credit, the property owner / applicant must submit:

- ❑ A completed SWU Fee Credit Application Form and
- ❑ A certification form for the facilities in the application signed by a qualified professional

Operation and Maintenance Agreement

To be eligible for SWU Fee Credit under this category, the property owner must have an executed and recorded Stormwater Management / BMP Facilities Operation and Maintenance Agreement. During review of the credit application, the City will determine if an executed and recorded Maintenance Agreement is on file with the City for the Green Infrastructure BMP included in the application. If it is determined that this requirement is outstanding, the applicant will be informed and presented with an agreement signed by the director of T&ES. The applicant must execute (sign in the presence of a notary), record the maintenance agreement in the Alexandria Circuit Court Clerk's Office Land Records, and provide proof of recordation along with a copy of the recorded maintenance agreement to T&ES.

Annual Inspection and Certification

Regular maintenance ensures that BMPs do not generate additional pollutants, become nuisances, or pose safety issues, and that they function properly. When maintenance problems do exist, they are most often less costly to correct when they are caught early. BMP maintenance is not only an integral part of BMP ownership, but is also a requirement of the City's local stormwater program. City ordinance 13-109(G) states that all stormwater BMPs must be adequately maintained by their owners to ensure that the BMPs function as designed. Facility inspection components should be consistent with State and Local BMP regulations.

All structural practices must be functioning to be eligible for credit. Annual Certification is Required.

The property owner(s) applying for credit must provide a certification that each Green Infrastructure BMP is maintained and functioning to its design capability. The certification must be completed by a qualified professional (a professional engineer, architect, or landscape architect pursuant to Code of Virginia § 54.1-400; a person who works under the direction and oversight of the licensed professional engineer, architect, or landscape architect; or a person who holds the Certified Stormwater Inspector certificate of competence through Virginia DEQ). The certification must be based on a current inspection (i.e. within 12 months prior to the date of application) by a qualified professional using facility inspection forms comporting to those found in the Virginia BMP Handbook, or inspection forms that are equivalent to the forms used by the City which can be found at alexandriava.gov/3876.

The Owner/Applicant is required to ensure proper functioning and maintenance of stormwater management facilities per 13-109(G) and keep inspection records per the BMP Regulations. As part of the review process, the City reserves the right to request that the Owner/Applicant provide inspection documentation (i.e. report, date-stamped pictures) that forms the basis of the certification of maintenance and functioning to design capability.

The City reserves the right to request inspection documentation to be provided to support the credit application review. The property owner or applicant is responsible for maintaining inspection records for their facilities per BMP regulations.

Example Credit Calculation

Step 1: Calculate Percentage of Fee Reduction

A property has voluntarily built a bioretention facility and a permeable pavement system to treat runoff from its rooftop and paved areas. Based on the plans that were submitted to the City prior to construction of the BMPs, the City determines that the bioretention filter treats 51.6% of the property's impervious area and the permeable pavement system treats 48.4% of the property's impervious area. Combined, the two BMPs treat 100% of the property's impervious areas, so it can receive the maximum credit.

Maximum Credit Percentage		Impervious Area Treated		Percentage Fee Reduction
20%	x	100%	=	20%

Step 2: Calculate Amount of Credit

The property receives an annual stormwater utility fee of $7,840.00. Based on the percentage fee reduction calculated in step 1, the City calculates the property's stormwater utility fee credit to be $1,568.00. The property's final stormwater utility fee after the credit is applied is $6,272.00.

Percentage Fee Reduction		Stormwater Utility Fee		Amount of Credit
20%	x	$7,840.00	=	$1,568.00

If, for example, the property is a condominium, with 200 units, each unit's final stormwater utility credit is $7.84 and the total credit for all 200 units is $1,568.00.

Percentage Fee Reduction		Stormwater Utility Fee		Amount of Credit
20.0%	x	$39.20*	=	$7.84

After the credit is applied, each unit's fee is $31.36 and the total fee paid is $6,272.00.

*Example uses the Fiscal Year 2018 rate

Urban Nutrient Management Plans

Credits for Residential Condominiums

Urban Nutrient Management Plans provide a blueprint for proper use of fertilizers, ensuring that excess fertilizers and nutrients – which can harm water quality – are not readily available for transport to the City's waterways via stormwater runoff.

An urban nutrient management plan is a plan prepared by a Virginia certified nutrient management planner to manage the amount, placement, timing and application of fertilizer, compost, or other materials containing plant nutrients to reduce nutrient loss to the environment and to produce quality turf and landscape plants.

Properly developed and implemented nutrient management plans help ensure that no excess nutrients leave the property through stormwater runoff, which can contribute to water quality impairments downstream.

Urban Nutrient Management Plans up to 10%

Residential Condominium property owners are eligible for stormwater utility fee credit for voluntarily developed Nutrient Management Plans at a rate of 1% fee credit for every 1,000 square feet of property covered by the plan, up to a maximum 10% credit.

The minimum property coverage for credit is 1,000 square feet, and for coverage falling between 1,000 square foot intervals, coverage will be rounded down to the nearest 1,000 square feet.

Nutrient Management Credit Formula

The City of Alexandria will calculate the percent fee reduction for urban nutrient management plans to the nearest tenth of a percent using the following formula:

% Fee Reduction =

10% Maximum Fee Reduction x

Square Footage of Pervious Area covered by Nutrient Management Plan ÷ 1,000 square feet

Documentation Requirements

To apply for SWU Fee Credit, the property owner / applicant must submit a completed SWU Fee Credit Application Form. In addition, the applicant must submit a copy of the Nutrient Management Plan document with the initial application for credit. While each Nutrient Management Plan is effective for three (3) years, an annual application for this credit is required to verify that the instructions for proper fertilizer application and management outlined in the Nutrient Management Plan are being implemented.

Residential Condominium properties are eligible for credit for implementation and maintenance of voluntary Urban Nutrient Management Plans. Application for this SWU Fee Credit must be made by a Condominium Owners Association or one owner on behalf of the entire Association. If a credit application is approved, the credit will be applied to each account holder listed as a member of the Association as provided in the application.

Example Credit Calculation

Step 1: Calculate Percentage of Fee Reduction

A condominium with 147 units has a Nutrient Management Plan prepared by a certified Nutrient Management Planner. The Nutrient Management Plan covers 9,000 square-feet of vegetated common area within the condominium property. The Condominium Owner Association (COA) applies for Stormwater Utility Credit on behalf of each owner.

Maximum Credit Percentage		Plan Coverage ÷ 1000		Percentage Fee Reduction
10%	x	9,000 ft² ÷ 1,000	=	9.0%

Step 2: Calculate Amount of Credit

Each unit owner receives an annual stormwater utility fee of $39.20*. Based on the percentage fee reduction calculated in step 1, the City calculates the unit owner's stormwater utility fee credit to be $3.53. Each Unit's final stormwater utility fee after the credit is applied is $35.67.

Percentage Fee Reduction		Stormwater Utility Fee		Amount of Credit
9.0%	x	$39.20*	=	$3.53

The total credit for all 147 units is $518.91. A new Urban Nutrient Management Plan is required after three years. If the COA implements the plan recommendations, the total amount of stormwater utility credits earned for all three years under the plan would be $1,556.73.

*Example uses the Fiscal Year 2018 rate

New Tree Planting

Credits for All Properties

Trees assist in stormwater management by slowing the rate at which rainfall reaches the ground through canopy interception. Planting new trees helps to preserve our existing tree canopy and meet City tree canopy goals. Increased tree canopy coverage can slow runoff rates, putting reduced stress on the City's stormwater drainage infrastructure by reducing peak flow rates. Property owners can apply for credit for the purchase, installation, and initial maintenance of new trees planted on their property. Property owners are eligible for a one-time, rebate-like stormwater utility fee credit based on the number of trees planted.

New Tree Planting Credit Formula

The City of Alexandria will calculate the percent fee reduction for new tree planting credits to the nearest tenth of a percent using the following formula:

% Fee Reduction =

30% Maximum One-Time Fee Reduction x

Number of Trees Planted ÷ Number of Trees for Maximum Credit

The table below describes the criteria for determining the number of trees needed for maximum credit. Planting fewer trees will result in a proportional one-time, rebate-like credit.

Stormwater Utility Fee Type	Number of Trees for Maximum Credit
Townhouse	1 native tree
Typical Single Family Home	2 native trees
Large Single Family Home	3 native trees
Residential Condominium	1 native tree per 2 units
Non-Residential Property	2 native trees per ERU

Eligibility Requirements

Tree selection should be appropriate for the planting site. Standards for tree planting, including a list of suggested tree varieties, can also be found at alexandriava.gov/14676 in the most recent version of the City of Alexandria Landscape Guidelines.

New trees must be non-invasive and native to Virginia or the Chesapeake Bay region with a minimum 1" to 2" caliper. Tree caliper is a standardized measurement of the tree diameter. For 1" and 2" caliper trees, the diameter of the tree trunk is measured at 6" above the ground.

Eligible trees are those planted within the property boundaries and not part of another stormwater BMP like bioretention or a rain garden.

Trees must not have been planted as part of a mandatory condition of development. The applicant property must not be under development or within the time frame of the maintenance bond at the time new trees are planted.

Documentation Requirements

To apply for SWU Fee Credit, the applicant must submit a completed credit application form. Required documentation required for a New Tree Planting Credit includes:

- ❑ Receipt of purchase
- ❑ Size and species of tree
- ❑ Date planted
- ❑ Photos before and after planting

Applications for New Tree Planting Credits for residential condominiums must be made by a Condominium Owners Association or one owner on behalf of the entire Association. If a credit application is approved, the credit will be applied to each account holder listed as a member of the Association as provided in the application.

Example Credit Calculation

Step 1: Calculate Percentage of Fee Reduction

A typical single family homeowner planted 1 native tree with a size of 2 inch caliper.

One-Time Credit Percentage		Number of Trees Planted		Percentage Fee Reduction
30%	x	1 tree ÷ 2 trees required for maximum credit	=	15.0%

Step 2: Calculate Amount of Credit

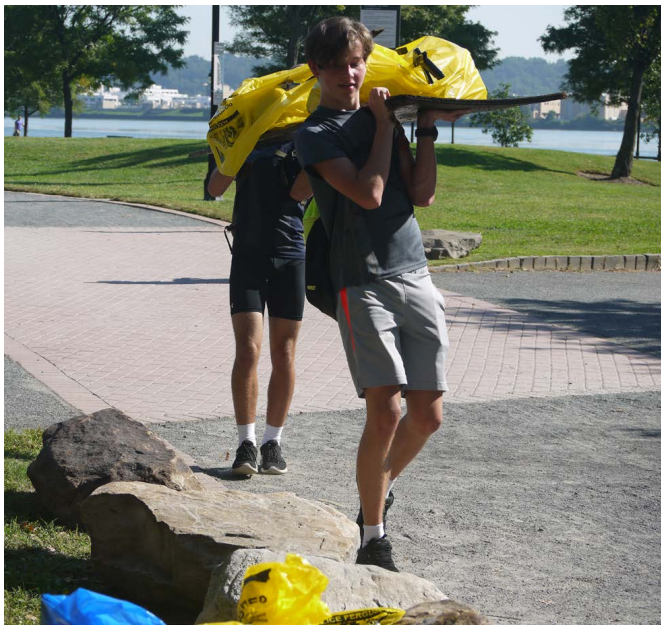
The homeowner is charged a stormwater utility fee for a typical single family home of $140*. Given a 15% fee reduction, the amount of the credit is $21 dollars.

Percentage Fee Reduction		Stormwater Utility Fee		Amount of Credit
15.0%	x	$140.00*	=	$21.00

*Example uses the Fiscal Year 2018 rate

Litter Cleanup Activities

Credits for Non-Residential Properties



In addition to structural stormwater facilities the City recognizes the value that volunteers offer in keeping our waterways, roadsides, and storm drains free of litter and excess debris that can inhibit their full functionality and beneficial uses. To recognize those contributions, the City offers credits for participation in one or all three litter cleanup programs offered: Adopt-A-Waterway, Adopt-A-Block, and Adopt-A-Storm Drain.

Credits for Litter Cleanup Activities are only offered to non-residential property owners. Homeowners are provided credits for certain non-structural practices under the Flat Credit Menu (i.e. a No Fertilizer Pledge) or Urban Nutrient Management Plans, as applicable.

Under the Adopt-A-Waterway and Adopt-A-Block programs, non-residential property owners may earn up to a maximum 10% fee reduction for 25 hours of litter cleanup activities.

Adopt-A-Waterway & Adopt-A-Block Credit Formula

The City will calculate the percent fee reduction for Adopt-A-Block and Adopt-A-Waterway credits to the nearest tenth of a percent using the following formula:

% Fee Reduction =

10% Maximum Fee Reduction x

Number of Litter Cleanup Hours ÷ 25

Under the Adopt-A-Storm Drain program, non-residential property owners earn up to a maximum 10% fee reduction for the adoption of 25 private storm drains.

Adopt-A-Storm Drain Credit Formula

The City of Alexandria will calculate the percent fee reduction for Adopt-A-Storm Drain credits to the nearest tenth of a percent using the following formula:

% Fee Reduction =

10% Maximum Fee Reduction x

Number of Private Storm Drains Adopted ÷ 25

Three Eligible Litter Cleanup Programs

Adopt-A-Waterway up to 10%

Under the Adopt-A-Waterway program, groups of volunteers for the non-residential property adopt a section of waterway and remove trash along stream banks and shorelines to enhance and improve the City's natural waterways and streams.

The City requires that groups have sufficient numbers to ensure a successful event, with at least one participant required for every approximate 20 linear feet of stream or channel bank. The adopted waterway must be within City limits.

Adopt-A-Block up to 10%

Under the Adopt-A-Block program, groups of volunteers for the non-residential property adopt a section of roadway and collect and dispose of trash and litter.

The City requires that volunteer groups adopt a minimum of four, City-maintained blocks encompassing both sides of the roadway.

Adopt-A-Storm Drain up to 10%

Under the Adopt-A-Storm Drain program, groups of volunteers or the property owner's representative adopt a group of private storm drains ensuring that the openings of these storm drains remain reasonably free of debris and obstructions that may impair their functionality.

The group must adopt a minimum of five (5) privately owned storm drains within the property and perform a minimum of four (4) quarterly cleanups in a year.

Participants may choose to mark adopted drains with labels that inform citizens that these drains send water to local waterways, the Potomac River, and ultimately, to the Chesapeake Bay – No Dumping. Ask about labels during registration.

Registration

Annual registration is required prior to the performance of any qualifying litter cleanup activities. Volunteers or groups wishing to participate in the Adopt-A-Waterway, Adopt-A-Block, or Adopt-A-Storm Drain Programs for potential SWU Fee Credit must contact the City's Stormwater Utility staff to inform the City which waterway segments, roadway blocks, or private storm drains the group will be adopting. Registration is complete when the City receives a signed agreement by the group leader. The agreement includes what's adopted, by whom, who'll get potential credit, and covers basic safety requirements.

To register for stormwater utility voluntary programs, the group leader or non-residential property owner may use the online form available on the City's website and accessible through the Stormwater Utility Fee interactive map viewer at alexandriava.gov/101010

Volunteer groups performing these activities to apply for SWU Fee Credit must complete the requirements noted in the litter cleanup program agreements. The group leader must obtain any required authorizations or permissions from any potentially impacted property owners for access, ingress, and egress to and from the properties necessary to perform the litter cleanup activity prior to registration and any cleanup event.

Litter Cleanup Activities

The Group Leader's Responsibilities

Prior to the planned event

- ❑ Choose a location or storm drains to adopt
- ❑ Contact the City to Register
- ❑ Obtain required authorizations for access, ingress, and egress to the properties necessary to perform the litter cleanup activity
- ❑ Sign an Adopt-A-Waterway, Adopt-A-Block, or Adopt-A-Storm Drain agreement
- ❑ Plan for and coordinate recycling and trash disposal or pickup

On the day of the event

Forms you'll need for litter cleanups are available on our website at alexandriava.gov/3876

- ❑ Ensure all participants sign the City's standard waiver, sign-in form, and photo release
- ❑ Give a site safety talk (training can be provided by the City, if interested)
- ❑ Oversee volunteers performing the litter cleanup activities planned
- ❑ Collect bags for disposal or place in an accessible location for pre-determined pickup
- ❑ Summarize the amount of trash and recycling collected using the City's tally form

Only hours spent on litter cleanup qualify for potential Stormwater Utility Fee credit. Hours spent on planning, preparation, and travelling do not qualify.

Documentation

Annual application is required. To apply for credit, the group leader or property owner must submit the following items with the annual credit application form during the annual credit application window:

- ❑ Signed copies of the City's standard waiver statement, photo release, and sign-in form.
- ❑ Date-Stamped Photos
- ❑ Tally Sheets summarizing the amount of trash collected

Participants in the Adopt-A-Waterway and Adopt-A-Block Programs must also provide:

- ❑ Number of litter cleanup events, number of participants each and number of hours

Participants in the Adopt-A-Storm Drain Program must also provide:

- ❑ Number of storm drains adopted and storm markers applied or maintained

Approved credits will be awarded to the parcel associated with the volunteer group in the signed agreement that documents registration. Credits are non-transferable.

Adopt-A-Waterway Example Credit Calculation

Step 1: Calculate Percentage of Fee Reduction

A group registers for the Adopt-A-Waterway program. During the year, the group performs a 1-hour long Adopt-A-Waterway cleanup event with 10 participants. The total number of Adopt-A-Waterway cleanup hours performed that year is 10 hours.

Maximum Credit Percentage		Qualifying Hours ÷ 25		Percentage Fee Reduction
10%	x	10 ÷ 25	=	4.0%

Step 2: Calculate Amount of Credit

The non-residential property associated with the group and identified in the registration agreement has an annual stormwater utility fee of $1,000. Given the 4% fee reduction, the amount of the credit is $40.00 dollars.

Percentage Fee Reduction		Stormwater Utility Fee		Amount of Credit
4.0%	x	$1,000.00	=	$40.00

The property's final stormwater utility fee after the credit is applied is $960.00.

Credits for Adopt-A-Block are calculated similar to credits for Adopt-A-Waterway.

Adopt-A-Storm Drain Example Credit Calculation

Step 1: Calculate Percentage of Fee Reduction

A group registers for the Adopt-A-Storm Drain program. During the year, the group adopts five storm drains within its property and performs cleanups of the adopted drains once every three months.

Maximum Credit Percentage		Drains Adopted ÷ 25		Percentage Fee Reduction
10%	x	5 ÷ 25	=	2.0%

Step 2: Calculate Amount of Credit

The non-residential property associated with the group and identified in the registration agreement has an annual stormwater utility fee of $4,000. Given the 2% fee reduction, the amount of the credit is $80.00 dollars.

Percentage Fee Reduction		Stormwater Utility Fee		Amount of Credit
2.0%	x	$4,000.00	=	$80.00

The property's final stormwater utility fee after the credit is applied is $3,920.00.

The City calculates your credit after you apply, so you don't have to. Just keep track of your qualifying hours and cleanup adopted storm drains quarterly.

How to Apply

Apply Annually December 1 - February 15

Interested City property owners must submit a complete SWU Fee Credit Application, including all ancillary documentation to the City of Alexandria Stormwater Utility in the Department of Transportation & Environmental Services.

During the Year

Prepare for the annual application:

- ❑ Hire a qualified professional to certify that structural stormwater facilities are functioning properly
- ❑ Install a new practice or plan
- ❑ Inspect and maintain existing practices
- ❑ Perform eligible landscaping practices
- ❑ Self-certify creditable practices from the residential flat credit menu for townhouse and single family homeowners
- ❑ Purchase and plant trees
- ❑ Take photos
- ❑ Assemble and keep documentation

During the Annual Credit Application Window

Complete and submit applicable forms. Online forms are available only during the annual credit application window. Property owners may visit alexandriava.gov/3876 or call us to get hard copy or Adobe© pdf editable application forms.

Supporting documentation must be provided with the application or the City will notify the applicant to provide missing or additional information within a specified time frame to facilitate application review. Missing or additional documentation that is not provided may result in your application being denied.

Approved SWU fee credits will be applied for one full calendar year from the date of approved application, split equally between two calendar-year billing cycles.

Do you live in a condo?

Residential Condominium applications for SWU Fee Credits must be made by a Condominium Owners Association or one owner on behalf all association members. If a credit application is approved, the credit will be applied to each account holder listed as a member of the Association as provided in the application.

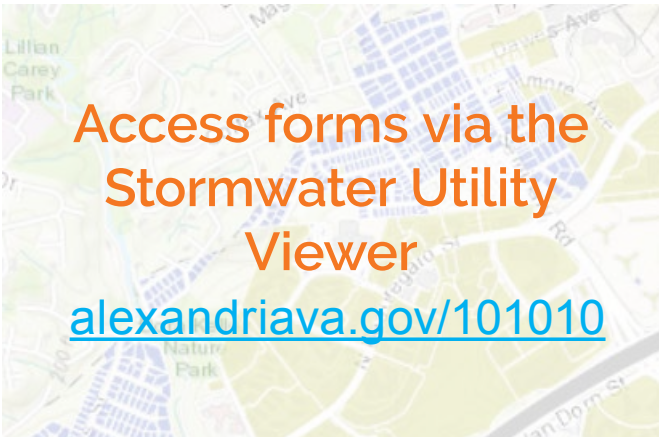
Contact Us

alexandriava.gov/Stormwater

stormwater@alexandriava.gov

703.746.6499

City of Alexandria
Transportation & Environmental Services
Stormwater Management Division
2900-B Business Center Drive
Alexandria, VA 22314



Note: Online application is only available during the annual credit application window.

Local Community Requirements

Practices receiving or requesting SWU Fee Credit must meet all applicable City of Alexandria building, planning, zoning, and other requirements of the Zoning Ordinance and City Code. Property owners are encouraged to contact the City during the planning/permitting process to ensure proper selection and location of creditable stormwater practices and to see what other development requirements may apply.

Apply for multiple credits to get up to 50% off your annual stormwater utility fee!

Right to Inspect

The City reserves the right to inspect a BMP or creditable practice at any time during the year. If the BMP is not functioning as approved or has not been maintained, the City may revoke the stormwater credit until the property owner proves that all maintenance work has been performed to return the BMP to a fully functional condition.

Denial of Credits

Should the property owner be found to have failed to obtain a required permit for development, to have made an illicit connection to the storm drain system, made an illicit discharge to the municipal separate storm sewer, or otherwise submitted falsified information for the Stormwater Utility Credit application, then the property owner will be ineligible for Stormwater Utility Fee credits for the following credit year.

Illicit connection means either (i) any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency or (ii) any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

Illicit discharge means any discharge to a municipal separate storm sewer system that is not comprised entirely of stormwater, except discharges pursuant to a Virginia Pollutant Discharge Elimination System or Virginia Stormwater Management Program permit (other than the Virginia Stormwater Management Program permit for discharges from the municipal separate storm sewer system), discharges resulting from fire fighting activities, and discharges identified by and in compliance with 4 VAC 50-60-1220(C)(2).

Credits will not be provided to any person who does not obtain a stormwater permit from the Department of Environmental Quality when such permit is required by statute or regulation.

Only Rain Down the Storm Drain!

Resources

Useful Links for Stormwater Utility Credits

City-Recognized Design Standards

Virginia Stormwater BMP Clearinghouse is a web site at www.swbmp.vwrrc.vt.edu with the main purpose of sharing information on the design standards and specifications for stormwater BMPs approved for use in Virginia.

All BMPs must meet City-recognized Design and Construction Standards to be eligible for credit. Because the BMP Clearinghouse standards are written for professionals, the City may choose to recognize alternative design standards for practices on the flat credit menu, such as the Chesapeake Stormwater Network's 2014 Homeowner Guide for a More Bay-Friendly Property. Contact us for up-to-date information on what standards are accepted.

Additional Resources

Plant NOVA Natives is a joint marketing campaign of a grand coalition of non-profit, governmental, and private groups, including Alexandria, all working to reverse the decline of native plants and wildlife in Northern Virginia. Their guide **Native Plants for Northern Virginia** is available for free online as a pdf at www.plantnovanatives.org

Digital Atlas of the Virginia Flora contains the most comprehensive information available on the geographic distribution of vascular plants in the Commonwealth. It includes native and well-established non-native plants and is a great source for determining whether a plant is native to Virginia. Visit vaplantatlas.org to explore the atlas.

Qualified Professionals must certify the proper functioning of Mandatory Structural Stormwater Facilities and Green Infrastructure BMPs on Condominium and Non-Residential Properties. While the City cannot endorse specific firms, most engineering firms with civil or environmental professionals or architecture or landscape architecture firms should be able to provide these services. To find an individual with a qualifying Stormwater Management Inspector certification from the Virginia Department of Environmental Quality, visit www.deq.virginia.gov/ConnectWithDEQ/TrainingCertification.aspx and follow the link for the Certification Search Tool.

Urban Nutrient Management The Virginia Department of Conservation and Recreation maintains a directory of private-sector certified planners (PDF) who develop nutrient management plans for a variety of turf grass and landscape management situations. Access the directory online at www.dcr.virginia.gov/soil-and-water/urban-nutmgt

Visit alexandriava.gov/Stormwater for even more resources including information on upcoming workshops offered, jointly through the Northern Virginia Clean Water Partners and information on the Virginia Conservation Assistance Program, offered jointly through the Northern Virginia Soil and Water Conservation District.

Glossary

Best Management Practice (BMP) A schedule of activities, prohibitions of practices, maintenance procedures, and other management practices, including both structural and non-structural practices, to prevent or reduce the pollution of surface water and groundwater systems.

Best Management Practice (BMP) Facilities Operation and Maintenance Agreement A legally recorded document that acts as a property deed restriction, and which provides for the long-term maintenance of stormwater management practices.

Equivalent Residential Unit (ERU) the average amount of impervious surface on a single family residential property in the City of Alexandria. The ERU is calculated to be 2,062 square feet of impervious area and is equal to one billing unit.

Impervious Area A surface composed of any material that significantly impedes or prevents natural infiltration of water into the soil. Impervious surfaces include, but are not limited to: roofs, buildings, streets, parking areas, and any concrete, asphalt, or compacted gravel surfaces.

Inspection An on-site review of compliance with a city permit, the city's stormwater management program, and any applicable design criteria, or an on-site review to obtain information or conduct surveys or investigations necessary in the enforcement of the Stormwater Utility Ordinance.

Mandatory Structural Stormwater Facilities are stormwater management facilities whose design, construction, and maintenance were required as a condition of a property's development.

Non-Residential Property All properties not considered residential (as defined below), such as commercial or industrial properties, apartment buildings, and non-profit or faith-based properties.

Owner or Property Owner: The owner or owners of the freehold of the premises or lesser estate therein, a mortgagee or vendee in possession, assignee of rents, receiver, executor, trustee, lessee or other person, firm, or corporation in control of a property.

Residential Property Residential condominiums, townhouses, and detached single family homes.

Stormwater Precipitation that is discharged across the land and impervious surface or through conveyances to one or more waterways and that may include stormwater runoff, snow melt runoff, and surface runoff and drainage.

Stormwater Management Facility A structural control measure that controls stormwater runoff and changes the characteristics of that runoff including, but not limited to, the quantity and quality, the period of release, or the velocity of flow. A stormwater management facility is a type of best management practice.

Stormwater Quality BMP A BMP that treats stormwater runoff from an impervious surface by affecting the chemical, physical, and/or biological characteristics of stormwater runoff.

Stormwater Utility Fee A stable, equitable source of funding for the City of Alexandria's Stormwater Management Program that will be used to meet State and Federal stormwater mandates, provide dedicated funding to meet pollution mandates, operate and maintain the stormwater infrastructure, and maintain the City's flood infrastructure and flood management program. All property owners in the City contributing to stormwater runoff, including businesses, home owners, state and federal government, and non-profit organizations are subject to the fee.

Stormwater Utility (SWU) Fee Credit Full or partial reduction of Stormwater Utility Fees granted to a property owner who manages stormwater to achieves a permanent reduction in stormwater flow or pollutant loadings as defined by City Code § 5-6-235.