Stormwater Utility Fee Credit Manual for Residential

KEEP IT CLEAN, HARRISONBURG
STOP POLLUTED RUNOFF

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City of Harrisonburg, Virginia
Public Works Department
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Harrisonburg, VA 22801
540·434·5928
www.harrisonburgva.gov/stormwater-utility
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Appendices

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This credit manual is applicable only to residential properties. Residential properties are defined as any property on which a single-family, duplex, or townhome dwelling exists and is used for noncommercial purposes. If the property is used for commercial purposes, the Stormwater Utility Fee Credit Manual for Non-Residential must be used to apply for a credit.

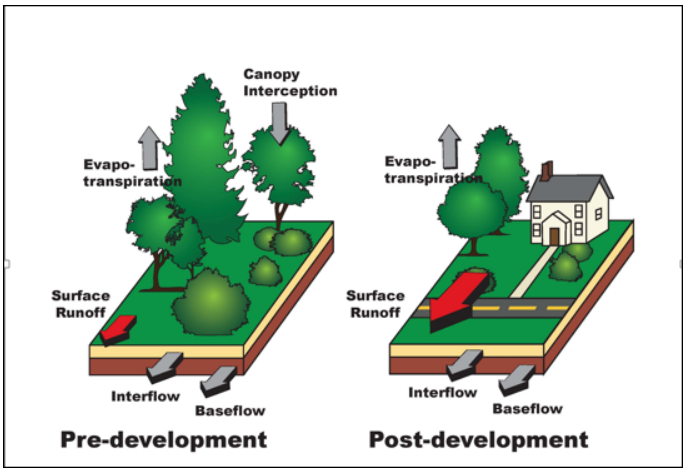
1 INTRODUCTION

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

2 STORMWATER UTILITY FEE

WHAT IS A STORMWATER UTILITY FEE?

The City of Harrisonburg has adopted a stormwater utility fee to provide an adequate and stable source of funding for its stormwater program. A stormwater utility fee is a fee for service based on the amount of impervious surface area on a property. *Impervious* means surface area composed of material that significantly impedes or prevents natural infiltration of water into soil such as roofs, driveways, walkways, etc.



This program is similar in concept to how the City distributes the cost for sanitary sewer and drinking water services. This approach has several advantages. First, it fairly distributes the cost of the city's stormwater services across all eligible properties based on the amount of impervious surface. Second, under the Code of Virginia, revenue from the stormwater utility must be placed in a special fund that can only be used for stormwater management; therefore, revenue is established as a dedicated funding source to accomplish the goals of the City's stormwater program. Finally, the Code of Virginia requires the City to provide credits to property owners who have implemented stormwater management facilities to reduce their stormwater utility

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fees. Per the City Stormwater Utility Ordinance, the stormwater utility fee shall be billed so that half the fee is billed two times per year to the property owner with the real estate tax bill.

HOW WILL THE STORMWATER UTILITY FUNDS BE USED?

The stormwater utility fee is a dedicated fund source that shall only be used for the City's stormwater program. The stormwater programs primary purpose is to provide pollution reductions by effectively managing polluted runoff. The funds collected will be used to support the following:

- Development of a city-wide Stormwater Improvement and Polluted Runoff Reduction Plan to identify, select, and prioritize capital projects to manage stormwater, reduce pollution, and protect our drinking water sources
- Design and construction of stormwater capital projects, including retrofits and community greening projects to reduce pollution and improve water quality. This includes projects on city-owned properties and partnerships (such as grants or cost-share) with private property owners.

- Coordination of pollution reduction efforts including staff training on pollution prevention and good housekeeping practices for municipal operations, a pollution detection and elimination program, and a public education and outreach program.
- Maintenance and operation of city-owned stormwater drainage and stormwater management facilities.

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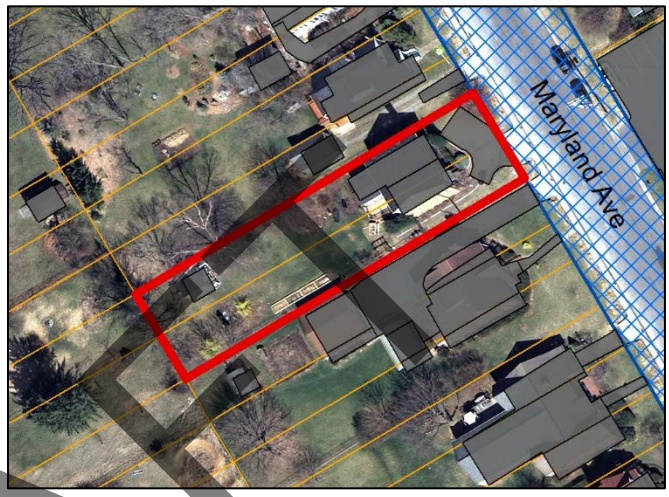
3 STORMWATER UTILITY FEE CALCULATIONS

Impervious areas such as parking lots, rooftops and driveways cannot absorb water so stormwater moves quickly over these surfaces into nearby storm sewers and streams resulting in a greater flow of water (i.e. a greater demand) on the urban drainage system. Therefore, the greater the impervious surface on your property, the greater the demand on the system.

For all properties in the city, the stormwater utility fee is based on square footage of impervious surface. For billing purposes, the fee is based on each 500 square feet of impervious area identified on each parcel and rounded to the nearest whole number.



All calculations will be performed by the City of Harrisonburg and will be available for review by the property owner.

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Proposed ***Annual*** Utility Fee Calculation:

For this example, the impervious area on this parcel is 1,900 square feet (sf).

Step 1: Divide the parcel's impervious area in square feet by 500 sf to determine the number of billing units.

1,900 sf ÷ 500 sf = *3.8 billing units*

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

1,900 sf ÷ 500 sf = 3.8 → **round to 4 billing units**

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

4 * $10.50 = **$42.00 per year**

4 INSTRUCTIONS TO APPLY FOR A CREDIT

Homeowners are encouraged to install approved stormwater Best Management Practices (BMPs) to reduce stormwater runoff volume and/or pollutant levels from their property. Homeowners with eligible existing and new stormwater BMPs as outlined in Section 8, are able to apply for a credit and must complete the Stormwater Utility Fee Credit Application for Residential (Appendix A) to receive credit. Refer to the instructions below.

- ✓ There is no fee for a credit application.
- ✓ Properties with one billing unit are not eligible to apply for a credit.
- ✓ The maximum credit a property owner can receive is 50%.
- ✓ Credits are valid for 5 years before re-application is necessary.
- ✓ Property owners must enter into a maintenance agreement with the City which includes periodic city inspections and a commitment from the property owner to maintain all components of the facility so it functions as designed.

Property-owners installing new eligible BMPs have the option to complete the Stormwater Utility Fee Credit Application for Residential prior to installation of the BMP for city review. This is a courtesy review offered by the Public Works Department to assist homeowners. No stormwater utility fee credit will be given until the stormwater BMP is installed and a Stormwater Utility Fee Credit Application for Residential is submitted. For a courtesy review, homeowners may:

1. Submit the Stormwater Utility Fee Credit Application for Residential to the Public Works Department, checking the box "For Pre-Installation Review" in the upper left corner of the document. The Public Works Department will return comments within 45 days.

To receive credit, applicants must complete the following to apply for a credit. Applicants with existing BMPs will follow steps 2-4 below.

1. Install the selected stormwater BMP(s) according to the provided design standards.

2. Complete the Stormwater Utility Fee Credit Application for Residential and Residential Stormwater Utility Fee Residential Maintenance Agreement.

3. Include pictures of each stormwater BMP. Photos must be no more than 60 days from the date of application.

4. Submit application and the items listed above to the address below. Applications may be submitted by mail or email.

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Stormwater Utility Credit
Harrisonburg Public Works Department
320 East Mosby Road
Harrisonburg, VA 22801
Email: stormwater@harrisonburgva.gov

The Stormwater Utility Fee Credit Application for Residential and Stormwater Utility Fee Credit Manual for Residential can be found at the website below: www.harrisonburgva.gov/stormwater-utility

Upon receipt of your application, the Public Works Department will review all documentation and the applicant will be notified in writing when an application is approved or denied. If additional information is needed for review, city staff will contact the applicant.

The City shall approve or deny credit applications and reapplications within 45 days of submittal. Any credit denial shall include comments from the city within 45 days of submittal.

If the applicant is not satisfied with the response of the Public Works Department and/or an application is denied, an appeal may be submitted to the Director of Public Works using the Stormwater Utility Fee Petition for Adjustment Form. The Director shall make a determination within forty-five (45) days of receipt of a complete submittal for the petition for adjustment. The Director of Public Works' decision on a stormwater utility fee adjustment petition is a final decision from which the aggrieved party may appeal to the Rockingham County Circuit Court within 30 days of such decision.

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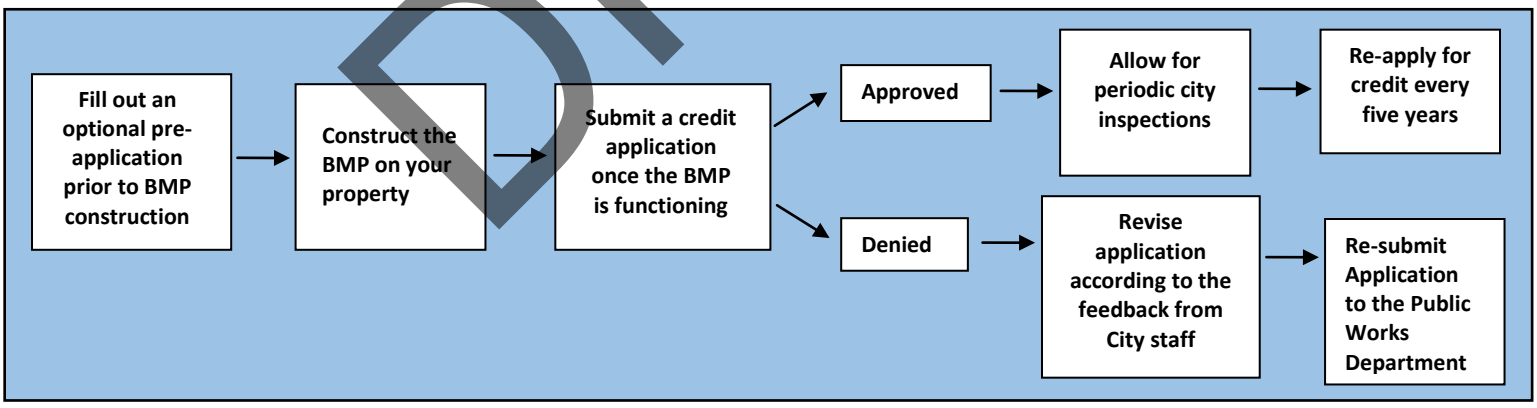
Stormwater Utility Fee Credit – Property Owner Action Plan:



5 CREDIT CRITERIA

Refer to Section 8 of this manual for approved stormwater BMPs and credit reductions and Section 9 for credit calculation examples.

6 MAINTENANCE REQUIREMENTS

In order for an applicant to continue to receive a stormwater credit, each stormwater BMP installed must be maintained to ensure its continued function. The applicant is responsible for having all ongoing maintenance work completed in accordance with the appropriate Virginia DEQ Stormwater Design Specifications and/or Chesapeake Bay Program's Protocol (refer to Section 8) to keep the facilities functional and to maintain compliance with the Stormwater Utility Fee Maintenance Agreement(s). Maintenance work should be documented regularly in the attached Stormwater Utility Fee BMP Maintenance Record (Appendix F).

As described in the Stormwater Utility Fee Maintenance Agreement, city staff may periodically inspect the stormwater BMP at reasonable times and upon presentation of proper identification, whenever the City deems necessary.

If the stormwater BMP is not functioning as approved or has not been maintained, the City will notify the owner in writing outlining the deficiencies and recommended actions. If the deficiencies are not corrected by the owner within 90 days after notification is received, credit revocation will take effect immediately.

Instructions on how to reinstate credits are found in Section 7.

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7 CREDIT EFFECTIVE DATE & RE-APPLICATION REQUIREMENTS

Once the stormwater BMP is installed and a credit application is approved by the Public Works Department, the credit will be applied to the stormwater utility fee for the next fiscal year following approval of the credit. For example, if a homeowner submits an application for a rain barrel on October 1, 2015 and is approved on October 30, 2015, then the credit will be applied to the fee on July 1, 2016. Be advised that application review may take up to 45 days.

Credits will be valid for five (5) years from date of application approval or until transfer of ownership (i.e. sale of your home to another party), whichever is first. The owner will need to re-apply for the credit every five (5) years. Proper installation and maintenance is required to continue receiving credit. To re-apply, the applicant shall submit a completed application form with Stormwater Utility Fee BMP Maintenance Records from the past five (5) years and current photographs (no more than 60 days old) of the BMP(s).

The stormwater credit applies only to the applicant. Credits do not transfer with ownership changes. A new Stormwater Utility Fee Credit Application for Residential and maintenance agreement must be submitted by the new owner in order to receive the credit. Upon transfer of ownership, the City encourages the current owners to share a copy of the application, maintenance records, and photographs with the new owner. In the event this information is not provided to the new owner, the new owner may contact the Public Works Department to obtain previous records for the BMP, if available, and apply for the credit.

To reinstate a revoked credit, if within five (5) years of the latest approved application, the applicant shall provide the Public Works Department with a copy of the Stormwater Utility Fee BMP Maintenance Records and current photos (no more than 60 days old) of the BMP(s) showing that BMP deficiencies have been corrected as recommended by city staff.

If credit has been revoked or the credit has expired (5) years after the latest approved application), the property owner must submit a new Stormwater Utility Fee Credit Application for Residential to reinstate the credit.

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8 APPROVED STORMWATER BEST MANAGEMENT PRACTICES

Residential property owners may receive credit for approved practices contained in this section of the manual.

To obtain credit, property owners are required to follow the guidelines for the installation and maintenance of approved BMPs provided in this manual and as found in the Chesapeake Stormwater Network's: Homeowner Guide for a More Bay-Friendly Property. http://chesapeakestormwater.net/wpcontent/uploads/dlm_uploads/2013/04/Homeowner-Guide.pdf

Additional information and guidance for the installation and maintenance of certain approved BMPs can be found in the following documents; however, property owners are not required to strictly comply with the standards and specifications found in these documents.

Chesapeake Bay Program's Urban Stormwater Protocol for Urban Stormwater Retrofits: Final CBP Approved Expert Panel Report on Stormwater Retrofits http://chesapeakestormwater.net/bay-stormwater/baywide-stormwater-policy/urban-stormwater-workgroup/retrofits/

DEQ Stormwater Design Specifications: http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/Publications.aspx

- ✓ Selecting more than one stormwater BMP is encouraged.
- ✓ The maximum credit allowed per parcel is fifty percent (50%).
- ✓ Other stormwater management practices may be approved on a case-by-case basis.

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Roof Drain Disconnection **Credit available with this practice: 10%-20%**

Two kinds of roof gutter (downspout) disconnections are allowable:

1 - Simple disconnection, whereby gutters from rooftops are directed to pervious (grass, meadow, forest) areas, and
2 - Gutter disconnection leading to an alternative runoff reduction practice(s) adjacent to the roof. Alternative practices can use less space than simple disconnection and can enhance runoff reduction rates. Alternative practices : discharge into a rain garden, discharge into a drywell or French drain, and discharge into an amended filter path.

To receive a 10% credit for this practice, at least 50% of the property's roof area must be disconnected. If 100% of the property's roof area is disconnected, the property is eligible for two (2) 10% credits totaling 20%.

Design Requirements and Installation Standards for *Roof Drain Disconnections*

To obtain credit for this practice, property owners need to adhere to the following:

1. The guidelines for the installation and maintenance of approved BMPs provided in this manual and as found in the Chesapeake Stormwater Network's: Homeowner Guide for a More Bay-Friendly Property. http://chesapeakestormwater.net/wpcontent/uploads/dlm_uploads/2013/04/Homeowner-Guide.pdf

2. It is highly recommended that disconnections be at least 10 feet from any building foundation and away from neighboring properties, sidewalks, steep slopes, and retaining walls.

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Rain Garden **Credit available with this practice: 25%-50%**

A rain garden is a depressed landscaped area designed to capture and filter stormwater runoff. The plants and soil in a rain garden provide an easy, natural way of reducing the amount of stormwater runoff through infiltration and uptake.

To receive a 25% credit, at least 25% of the property's total on-site impervious surface area must drain to the rain garden. In order to receive a 50% credit, at least 50% of the on-site impervious surface area, including rooftops, must drain to the rain garden.

Design Requirements and Installation Standards for *Rain Gardens*

To obtain credit for this practice, property owners need to adhere to the following:

1. The guidelines for the installation and maintenance of approved BMPs provided in this manual and as found in the Chesapeake Stormwater Network's: Homeowner Guide for a More Bay-Friendly Property. http://chesapeakestormwater.net/wpcontent/uploads/dlm_uploads/2013/04/Homeowner-Guide.pdf

2. Overflows should be at least 10 feet from any building foundation and away from neighboring properties, sidewalks, steep slopes, and retaining walls.

3. It is highly recommended that native vegetation be planted in the rain garden. Recommended native vegetation can be found in the Chesapeake Stormwater Network's: Homeowner Guide for a More Bay-Friendly Property.

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Vegetated Filter Strip **Credit available with this practice: 10%**

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 and Installation Standards for *Vegetated Filter Strips*

To obtain credit for a vegetated filter strip, property owners should adhere to the following:

1. The guidelines set forth in the DEQ Stormwater Design Specifications. http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/Publications.aspx

2. The filter strip area should be fully vegetated with no bare soil or mulch on embankments or within the immediate drainage area.

3. Fertilizers and pesticides should not be used on the filter strip or immediate drainage area.

Note: The property owner should clearly delineate in a sketch the filter strip area on the application. The sketch shall include dimensions of the filter strip and distances from landmarks on the property. This information will be shared with the City's Department of Planning and Community Development and will allow the area to be exempt from the Tall Grass and Weeds Ordinance.

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Rain Barrel/Cistern **Credit available with this practice: 20%**

Rain barrels and cisterns provide temporary storage of rain water, which reduces peak runoff volumes, reduces soil saturation, and allows for greater infiltration and evaporation of stormwater runoff.

Design Requirements and Installation Standards for *Rain Barrels/Cisterns*

To obtain credit for a rain barrel or cistern, property owners should adhere to the following:

1. The guidelines for the installation and maintenance of approved BMPs provided in this manual and as found in the Chesapeake Stormwater Network's: Homeowner Guide for a More Bay-Friendly Property. http://chesapeakestormwater.net/wpcontent/uploads/dlm_uploads/2013/04/Homeowner-Guide.pdf

2. The rain barrel or cistern must be installed with:
    a. A diverter or connection from a downspout;
    b. A spigot or a hose to drain the barrel;
        i. The rain barrel or cistern must drain in no less than 24 hours and should be emptied prior to the next storm event. (Collected rainwater can be used for irrigation, although the homeowner should note that the primary purpose for the credit is to reduce the volume of stormwater runoff from draining offsite).
        ii. During winter months, it is recommended that the spigot be left open during warmer daytime hours to allow any ice to melt.
    c. Overflow mechanism
        i. All rain barrel or cistern devices should have an overflow area to route extreme flows out into the lawn or into the next treatment practice of the stormwater conveyance system (ex: overflow pipe, overflow filter path, or overflow into a rain garden).
        ii. Overflows should be at least 10 feet from any building foundation and away from neighboring properties, sidewalks, steep slopes, and retaining walls.

3. Mosquito prevention and overflow controls must be included.

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Regional BMPs **Credit available with this practice: See below**

Credits may be provided to individual properties served by a regional stormwater BMP. In circumstances where an applicant is attempting to claim credit for a BMP that is owned by a separate entity, proof that the applicant shares in the maintenance obligations and costs must be submitted with the Stormwater Utility Fee Credit Application for Residential in order for credit to be applied. To receive credit for a regional BMP, the owner of the BMP and all property owners of the properties contributing to the stormwater BMP must complete and sign a Regional Stormwater BMP Agreement Form, which can be found in Appendix G.

CREDIT EARNED for Regional BMP for Individual Properties =

[(YY% BMP Credit) x (ZZ% of impervious area on the individual parcel treated)] x (Original Individual Parcel Stormwater Fee)

A 50% credit will be granted for a regional stormwater BMP (as applied to the impervious surface area that is treated by the stormwater BMP).

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Urban Tree Planting **Credit available with this practice: 10%**

Tree planting is the practice of planting deciduous or evergreen trees in grassy areas that will grow and create a leaf canopy that intercepts rainfall and reduces runoff. Native tree species are preferred. Trees can be planted by the owner or a contractor, but species should be selected that will grow best given a variety of conditions, including the soil conditions and sun exposure at the planting site.

To receive a 10% credit, minimum tree canopy coverage of 20% of the total parcel area is required. A 10% credit is the maximum credit a homeowner is able to receive, even if their canopy coverage is greater than 20%.

Requirements and Standards for *Urban Tree Planting*

To qualify for a stormwater utility fee credit, you may add or preserve existing trees on your property. The homeowner must consider the following:

1. Tree canopy coverage for planted or existing trees will be calculated on actual cover area, as determined by review of aerial photography, or projected 10-year tree cover area.

2. If adding new trees:
    a. Plant trees recommended in Appendix B of this manual. If trees in Appendix B are not selected, the homeowner will be responsible for providing documentation of projected 10-year tree cover area.
    b. The minimum caliper and or planting size (in height) requirements for each tree provided in Appendix B must be met or documentation must be provided.
    c. Trees should be placed a minimum of 10 feet from any aboveground and underground utilities and structures. Call Miss Utility by dialing 811 a minimum of 3 days before starting your project to request utilities be marked. Care should also be taken in close proximity to septic drain fields.

3. Trees located within the city rights-of-way do not qualify for a utility fee credit.

4. Trees must be planted and preserved properly and in good, healthy condition to continue to receive credit. Canopy coverage and the health of the trees will be re-evaluated every 5 years.

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Conservation Landscaping **Credit available with this practice: 10%**

Conservation landscaping is the creation of depressed mulched beds that are planted with perennial plants, shrubs and/or small trees that retain rainfall and absorb runoff from impervious areas. Native plants and organic mulch are highly recommended.

Conservation landscaping benefits the environment by improving water quality, preserving native species, and providing wildlife habitat. Conservation landscaping replaces some of the turf grass of a traditional lawn with plants that have adapted to local rainfall and soil conditions and require less water and maintenance than lawn grasses.

To receive a 10% credit, a minimum conservation landscaping coverage of 20% within the parcel is required. A 10% credit is the maximum credit a homeowner is able to receive, even if their conservation landscaping coverage is greater than 20%.

Design Requirements and Installation Standards for *Conservation Landscaping*

To obtain a residential credit for conservation landscaping, the following standards and requirements must be met:

1. The guidelines for the installation and maintenance of approved BMPs provided in this manual and as found in the Chesapeake Stormwater Network's: Homeowner Guide for a More Bay-Friendly Property. http://chesapeakestormwater.net/wpcontent/uploads/dlm_uploads/2013/04/Homeowner-Guide.pdf

2. It is highly recommended that native vegetation be planted in the conservation landscaping area. Recommended native vegetation can be found in Section 12 of this manual.

3. It is recommended to place conservation landscaping beds in a location that is lower than other parts of your lawn or your neighbor's lawn. Use any extra soil to form a small berm on the opposite side to retain water during a storm.

4. If trees are planted, they should be placed a minimum of 10 feet from any aboveground and underground utilities and structures. Call Miss Utility by dialing 811 a minimum of 3 days before starting your project to request utilities be marked. Care should also be taken in close proximity to septic drain fields.

5. Plants must be planted and maintained properly and in good, healthy condition to continue to receive credit. Conservation landscaping coverage and the health of the plants will be re-evaluated every 5 years.

In some cases, tree canopy and conservation landscaping areas may overlap. Credits will be calculated for each separately as illustrated in Examples A, B and C shown below.

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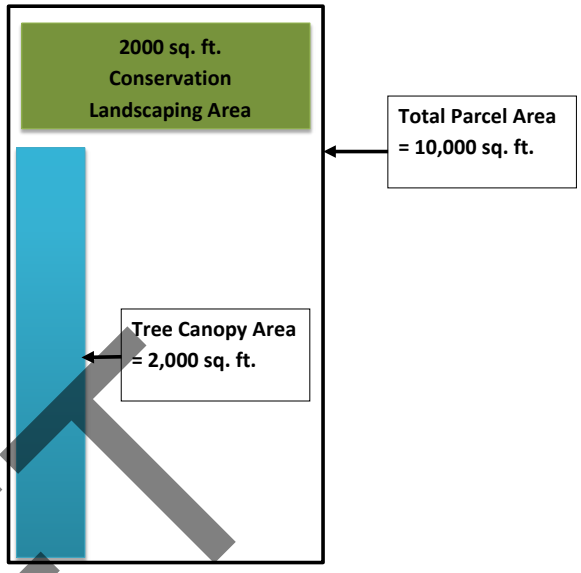
Example A:

The 10,000 square foot (sf) parcel has 2,000 sf in conservation landscaping and 2,000 sf of tree canopy. The areas do not overlap.



Credit Percentage Allowable:

Total Tree Canopy Area = 2,000 sf or 20% of total parcel area

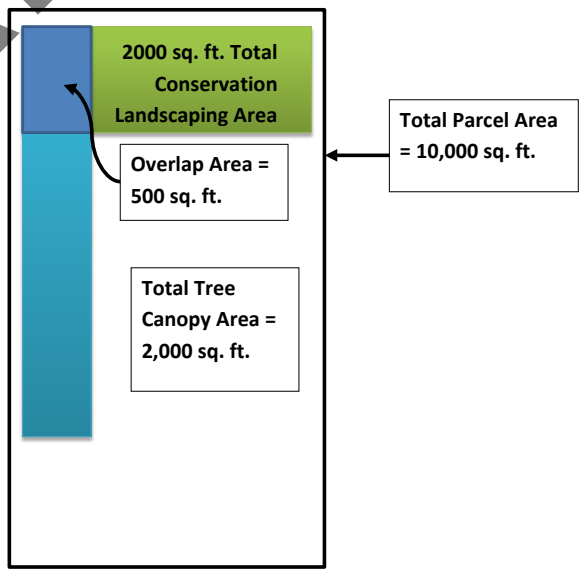
Total Conservation Landscaping area = 2,000 sf or 20% of total parcel area

Total Credit Percentage Allowable = 10% (tree canopy) + 10% (conservation landscaping)

Total Credit Percentage Allowable = 20%

Example B:

The 10,000 square foot parcel has 2,000 square feet in conservation landscaping and 2,000 square feet of tree canopy. The areas overlap with 500 square feet of overlap area.



Credit Percentage Allowable:

Total Tree Canopy Area = 2,000 sf or 20% of total parcel area

Total Conservation Landscaping Area = 2,000 sf – 500 sf = 1,500 sf

1,500 sf is less than 20% of total parcel area, therefore no credit is allowed for conservation landscaping.

Total Credit Percentage Allowable = 10% (tree canopy) + 0% (conservation landscaping)

Total Credit Percentage Allowable = 10%

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Example C:

The 10,000 square foot parcel has 3,000 square feet in conservation landscaping and 2,000 square feet of tree canopy. The areas overlap with 500 square feet of overlap area.

<u>Credit Percentage Allowable:</u>

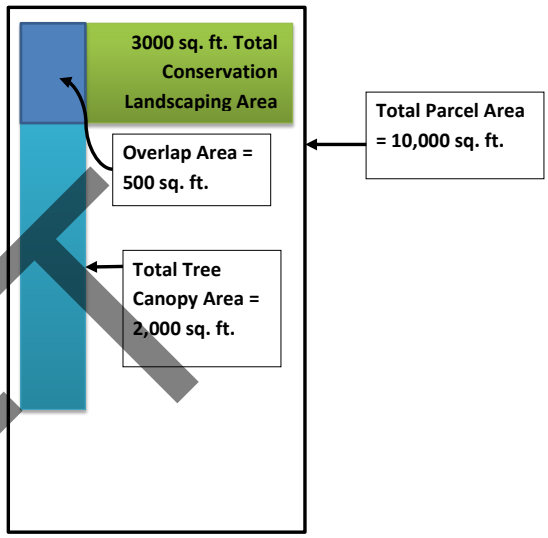
Total Tree Canopy Area = 2,000 sf or 20% of total parcel area

Total Conservation Landscaping Area = 3,000 sf – 500 sf = 2,500 sf

> *2,500 sf is greater than 20% of total parcel area, therefore credit is allowed for conservation landscaping.*

Total Credit Percentage Allowable = 10% (tree canopy) + 10% (conservation landscaping)

Total Credit Percentage Allowable = 20%



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Homeowner Nutrient Management & Lawn Care Agreement

***Credit available with this practice*: 10%**

Applying pesticides and fertilizers is a common practice for many gardeners. Unfortunately, those lawn care chemicals often wind up washing right into local waterways. The excess nutrients from fertilizers can cause drinking water contamination, algal blooms, and fish kills. The contaminants from pesticides can result in waters that are not fishable or drinkable. A few small changes in your homeowner lawn care practices can mean a healthier lawn and less polluted runoff into local waterways.

To receive a Homeowner Nutrient Management and Lawn Care Agreement credit, the homeowner must complete and sign a Homeowner Nutrient Management Agreement, which can be found in the Appendix D of this manual.

Impervious Cover Removal, including Permeable Hardscapes and Vegetated Roofs

***Credit available with this practice*: See below**

When impervious cover is removed, the impervious area will be recalculated for the stormwater utility fee; refer to the calculation shown in Example A in Section 9 of this manual.

Impervious cover removal consists of breaking up existing hard surfaces, removing asphalt or concrete from the site, roto-tilling of the underlying soils to relieve compaction, and planting the area with grass or other vegetation. It could also mean the installation of a permeable material to replace hard surfaces, such as asphalt driveways or concrete walks, as well as the installation of a vegetated roof to replace standard roof material. This process requires the proper disposal or recycling of the asphalt or concrete

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

It is recommended that a qualified installer with knowledge of hydrology and hydraulics be consulted for applications using permeable hardscapes for driveways to ensure desired results and to support the weight of vehicles.

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Vegetated roofs (also known as green roofs) are alternative roof surfaces that typically consist of waterproofing and drainage materials with an engineered growing media that is designed to support plant growth. Vegetated roofs capture and temporarily store stormwater runoff in the growing media before it is conveyed into the storm drain system. A portion of the captured stormwater evaporates or is taken up by plants, helping reduce runoff volumes, peak runoff rates, and pollutant loads from sites.

It is recommended that a qualified installer with knowledge of hydrology and hydraulics and roofing systems be consulted for applications using vegetated roofs to ensure desired results and to confirm the structural system is adequate to support the weight of the vegetated roof.

Design Requirements and Installation Standards for *Permeable Hardscapes*

To obtain a credit for permeable hardscapes the following standards and requirements must be met:

1. Installed for the purpose of runoff filtration.

2. For driveway installation: Stone reservoir underneath the permeable material is at least 10 inches deep at all points.

3. Underdrain system is constructed.

4. For walkway/patio installation: Stone reservoir underneath the permeable material is at least 6 inches deep at all points.

5. Guidance for installation of the permeable hardscapes can be found at the DEQ Stormwater Design Specification for Permeable Pavements found here: http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/Publications.aspx

Design Requirements and Installation Standards for *Vegetated Roofs*

To obtain a credit for vegetated roofs, it must be installed as per the DEQ Stormwater Design Specification for Vegetated Roof found here: http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/Publications.aspx.

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9 CREDIT CALCULATION EXAMPLES

All credit calculations will be provided by the homeowner as shown below. The calculations will be reviewed and approved by the City of Harrisonburg prior to receiving the credit. The following examples illustrate the calculation of the annual credit for a residential property.

A. Proposed ***Annual*** Utility Fee ***with Credit*** Calculation:

For this example, the impervious area on this parcel is 1,900 square feet (sf); the owner installed a rain garden and removed 800 square feet of impervious cover and replaces it with grass and other vegetation.

Step A1: Recalculate the square footage of impervious surface and divide the parcel's impervious area in square feet by 500 sf.

1,900 sf – 800 sf = 1,100 sf of impervious surface

Step A2: Divide the individual parcel's new impervious area in square feet by 500 sf to determine the number of billing units for the parcel

1,100 sf ÷ 500 sf = *2.2 billing units*

Step A3: Round the answer in step A2 to the nearest whole number of billing units.

1,100 sf ÷ 500 sf = 2.2→ **round to 2 billing units**

Step A4: Determine the base annual utility fee by multiplying the whole number of billing units found in step A3 with the billing unit rate.

2 X $10.50 = **$21.00 per year**

Step A5: Calculate the credit based on the approved BMPs installed by multiplying the base annual utility fee by the credit percentage.

Rain garden credit = $21.00 X 25% **= $5.25**

Total Annual Credit = $5.25

Step A6: Calculate the new annual fee by subtracting the credit (step A5) from the base annual utility fee (step A4).

New Annual Fee = $21.00 - $5.25 = $15.75

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B. Proposed ***Annual*** Utility Fee ***with Credit*** Calculation:

For this example, the impervious area on this parcel is 2,400 square feet (sf); the owner disconnected 2 downspouts (representing 50% of the 1,000 sf roof surface) and installed a rain garden capturing runoff from at least 1,200 square feet of the site's impervious surface.

Step B1: Divide the parcel's impervious area in square feet by 500 sf to determine the number of billing units.

2,400 sf ÷ 500 sf = *4.8 billing units*

Step B2: Round the answer in step B1 to the nearest whole number of billing units.

2,500 sf ÷ 500 sf = 4.8→ **round to 5 billing units**

Step B3: Determine the base annual utility fee by multiplying the whole number of billing units found in step B2 with the billing unit rate.

5 X $10.50 = **$52.50 per year**

Step B4: Calculate the credit based on the approved BMPs installed by multiplying the base annual utility fee (step B3) by the credit percentage.

The roof drain disconnection provides a 10% credit and the rain garden provides a 50% credit. Since the maximum credit is 50%, multiply the annual utility fee (step B3) by 50%.

Total Annual Credit = $52.50 x 50% = $26.25

Step B5: Calculate your new annual fee by subtracting the credit (step B4) from the base annual utility fee (step B3).

New Annual Fee = $52.50 - $26.25 = $26.25

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C. Proposed ***Annual*** Utility Fee ***with Credit*** Calculation for a ***townhome with homeowner association common areas:*** (Note common areas will include private drives, if outside of individual parcel boundaries.)

For this example, the impervious area on this individual parcel is 1,100 square feet (sf); the total impervious area within the common areas is 25,000 sf; and there are 100 individual parcels within the subdivision/association. The owner of an individual parcel installed a rain barrel.

Step C1: Divide the individual parcel's impervious area in square feet by 500 sf to determine the number of billing units for the parcel.

1,100 sf ÷ 500 sf = *2.2 billing units*

Step C2: Determine the individual parcel's 'share' of the common area impervious area by dividing the total common area impervious area by the number of individual parcels within the subdivision/association.

25,000 sf ÷ 100 parcels = **250 sf per parcel**

Step C3: Calculate the 'shared' billing unit per individual parcel by dividing the answer in C2 by 500 sf.

250 sf ÷ 500 sf = *0.5 billing units per individual parcel*

Step C4: Calculate the total billing units for the subject parcel by adding the answers in step C1 and C3 and rounding the answer to the nearest whole number of billing units.

2.2 + 0.5 = 2.7→ **round to 3 billing units**

Step C5: Determine the base annual utility fee by multiplying the whole number of billing units found in step C4 with the billing unit rate.

3 X $10.50 = **$31.50 per year**

Step C6: Calculate the credit based on the approved BMPs installed by multiplying the base annual utility fee (step C5) by the credit percentage.

Rain barrel credit = $31.50 X 20% **=** $6.30
Total Annual Credit = $6.30

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Step C7: Calculate the new annual fee by subtracting the credit (step C6) from the base annual utility fee (step C5).

New Annual Fee = $31.50 - $6.30 = $25.20

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10 DEFINITIONS

Billing unit means five hundred (500) square feet of impervious area.

Developed property means real property that has been altered from its "natural" state by the addition of any improvements such as buildings, structures and other impervious area.

Impervious means surface area composed of material that significantly impedes or prevents natural infiltration of water into soil.

BMP or "Best Management Practice" is defined as schedules of activities, prohibitions of practices, including both structural and nonstructural practices, maintenance procedures, and other management practices used to prevent or reduce the pollution of surface waters and groundwater systems.

Residential Properties are defined as any property on which a single-family, duplex, or townhome dwelling exists and is used for noncommercial purposes.

Pervious Surface means a surface composed of material that allows water to be absorbed into the ground, reducing runoff and filtering pollutants.

Regional BMP means a BMP that accepts and treats runoff from multiple separate properties. Regional BMPs are often owned by a Property Association or other entity responsible for regular maintenance and inspections.

Stormwater Quality refers to the chemical, physical, and/or biological characteristics of surface water.

Stormwater Quantity refers to the flow rate or volume of surface runoff from a property.

Utility fee means any permit or local program fees allowed by the Code of Virginia.

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11 RESOURCES

City of Harrisonburg Stormwater Management Program
Public Works Department
540-434-5928
http://www.harrisonburgva.gov/stormwater-management-program

City of Harrisonburg Ordinance, Title 6, Chapter 5, Stormwater Utility
<Insert link>

Cleanstream.org
Local water quality information
http://www.cleanstream.org

Department of Forestry
Information on water quality and rain gardens
Rain garden Technical Guide
http://www.dof.virginia.gov
434-977-6555

Shenandoah Valley Soil & Water Conservation District
Watershed education, low impact development information, backyard conservation, lawn and tree care tips, rain garden and rain barrel information
http://svswcd.org/
540-433-5853 x 3

Virginia Department of Environmental Quality
Watershed education, lawn care, pet waste, and land conservation information
http://www.dcr.virginia.gov
804-786-1712

Chesapeake Bay Foundation
Water Quality, lawn care tips, Bay education, rain garden, and 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

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12 NATIVE PLANT REFERENCES

The information below is provided as a resource to assist property owners with selection of trees and plants on their properties.

Fairfax County, Rain Garden Design & Construction: A Northern Virginia Homeowner's Guide, http://www.fairfaxcounty.gov/nvswcd/raingarden.htm

Northern Virginia Soil & Water Conservation District, 10 Common Rain Garden Plants, http://www.novaregion.org/index.aspx?NID=977

Northern Virginia Soil & Water Conservation District, et al., Residential Low Impact Landscaping Handbook, http://www.fairfaxcounty.gov/nvswcd/raingarden.htm

Virginia Cooperative Extension, Urban Water-Quality Management: Rain Garden Plants, http://pubs.ext.vt.edu/426/426-043/426-043.html

Virginia Department of Conservation & Recreation, Native Plants for Conservation, Restoration, and Landscaping, http://www.dcr.virginia.gov/natural_heritage/nativeplants.shtml.

Virginia Department of Forestry, Rain Gardens Technical Guide, http://www.raingardensforthebays.org/wp-content/uploads/2013/04/pub-Rain-Garden-Tech-Guide_2008-05.pdf

Virginia Department of Forestry, Common Native Trees, Tree Identification Guide, http://www.dof.virginia.gov/print/edu/Common-Native-Trees.pdf

US Fish & Wildlife Service, Native Plants for Wildlife Habitat and Conservation Landscaping: Chesapeake Bay Watershed, http://www.nps.gov/plants/pubs/Chesapeake/toc.htm

Plant Invaders of the Mid-Atlantic Natural Areas, http://www.nps.gov/plants/ALIEn/pubs/midatlantic/index.htm (Non-native/invasive plants are not recommended)

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APPENDICES

APPENDIX A. STORMWATER UTILITY FEE CREDIT APPLICATION FOR RESIDENTIAL

APPENDIX B. TREE CANOPY CHART

APPENDIX C. STORMWATER UTILITY MAINTENANCE AGREEMENT

APPENDIX D. HOMEOWNER NUTRIENT MANAGEMENT AND LAWNCARE AGREEMENT

APPENDIX E. STORMWATER UTILITY FEE CREDIT RE-APPLICATION

APPENDIX F. STORMWATER UTILITY FEE PETITION FOR ADJUSTMENT FORM

APPENDIX G. STORMWATER UTILITY FEE BMP MAINTENANCE RECORD

APPENDIX H. REGIONAL STORMWATER BMP AGREEMENT FORM

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APPENDIX A. STORMWATER UTILITY FEE CREDIT APPLICATION FOR RESIDENTIAL

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Date Received: _____

Credit Application ID: _____

City of Harrisonburg, Virginia
Department of Public Works
320 East Mosby Road
Harrisonburg, VA 22801
540·434·5928
stormwater@harrisonburgva.gov

Stormwater Utility Fee Credit Application

For Residential

May Submit ONE Application for Multiple BMPs

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☐ For Pre-Installation Review

☐ For Final Credit Application

☐ To Reinstate an Expired Credit *(For re-applications of credit not yet expired, see Appendix E.)*

General Information:

Parcel Information

Tax Map Parcel Number: _____

Parcel Street Address: _____

Owner Information

Owner Name (Last, First, M.I. or Business): _____

Owner Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number (w/Area Code): (_____)_____ Email: _____

Type of BMP Installed:

☐ Roof Drain Disconnection

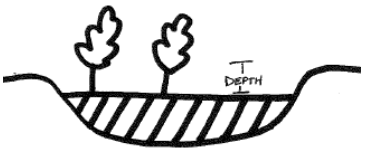
Number of Disconnected Downspouts: _____

Total Roof Area Draining to the Disconnected Downspouts: _____ Sq. Ft.

Do any of the disconnected downspout lead to another stormwater BMP? Yes ☐ No ☐

If yes, what is the other stormwater BMP* (rain garden, etc.): _____
*Make sure information for all BMPs is detailed in this application material.

☐ Rain Garden



Area of the Rain Garden (WIDTH x LENGTH): _____ Sq. Ft.
Depth of the Rain Garden: _____Inches

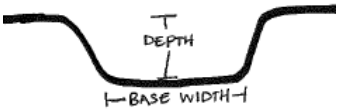
Impervious surface area Draining to the Rain Garden: _____Sq. Ft.

Type and Quantity of Plants (Native Vegetation Recommended) (Attach additional sheets if necessary)

Type:_____ Quantity:_____
Type:_____ Quantity:_____
Type:_____ Quantity:_____
Type:_____ Quantity:_____
Type:_____ Quantity:_____

☐ Vegetated Filter strip

Upon signing this application, the homeowner commits to leaving the vegetated filter strip and its immediate drainage area unfertilized.



Size of the Filter Strip (BASE WIDTH x DEPTH): _____ Sq. Ft.

Length of the Filter Strip: _____ Ft.

Is the area fully vegetated and unmowed with no bare soil or mulch on embankments? Yes ☐ No ☐

☐ Rain Barrel/Cistern

Total Volume of Barrel(s)/Cistern(s): _____ Gallons

Total Roof Area Draining to the Barrel(s)/Cistern(s): _____ Sq. Ft.

An overflow control mechanism and mosquito prevention device included? Yes ☐ No ☐

Describe the drawdown method for the Barrel/Cistern: _____

☐ Regional BMP

Type of regional BMP: _____

Has an agreement been made between property owners in the contributing drainage area? Yes ☐ No ☐

A completed Regional Stormwater BMP Agreement (Appendix H.) must be included with the application.

Please describe and/or sketch the regional BMP below:

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☐ Urban Tree Planting

Tree canopy covers at least 20% of the homeowner's property? Yes ☐ No ☐

☐ Check here if canopy cover was determined by aerial imagery. Date of imagery: _____

Existing Trees:

What is the approximate canopy cover on your property? _____%
What is the estimated number of trees contributing to this canopy cover? _____

New Plantings:

Complete the following table for new plantings on the homeowner's property:

Type:	Quantity:	Year Planted:	Caliper Size: OR Height at planting: (Circle One)	Projected canopy cover at 10 year growth:

A 2" caliper minimum sapling is required for utility fee credits. Caliper size is measured at 6" above the soil surface. If the type of tree planted is not included in the referenced tree canopy chart, the applicant must provide canopy cover information.

Projected canopy cover at 10 year growth for all new plantings: _____Sq. Ft.

Homeowner has called Miss Utility (dial 811) a minimum of three days before a new planting? Yes ☐ No ☐

☐ Conservation Landscaping

What type/quantity of plants are in the homeowner's current or planned conservation landscaping?
(Native vegetation is recommended) (Attach additional sheets if necessary)

Type:_____ Quantity:_____

Type:_____ Quantity:_____

Type:_____ Quantity:_____

Will the homeowner mulch and fertilize the conservation landscaping area? Yes ☐ No ☐

☐ Homeowner Nutrient Management and Lawn Care Agreement

Owner has signed and agreed to the provisions set forth in the Homeowner Nutrient Management and Lawn Care Agreement? Yes ☐ No ☐

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☐ Impervious Cover Removal/Pervious Paver and/or Vegetated Roof Installation

Impervious Cover Removed: _____Sq. Ft.

If a permeable hardscape will replace the impervious cover, explain the type of material installed and the underdrain system:

_____

_____

What is the depth of the stone reservoir? _____Inches

If a vegetated roof(s) will replace the impervious cover, explain the type of system installed:

_____
_____
_____

For Pre-Application:
Will the services of a qualified installer be used for pervious paver/vegetated roof installation? Yes ☐ No ☐

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BMP and Property Sketch

Please use the space provided to give a general sketch of the stormwater management BMP(s) installed on your property. Alternatively, you may provide a sketch on an aerial map. Include square footage (if available), distances (in feet), and arrows to denote the drainage paths leading to the BMP and intended overflow drainage path away from the BMP. If multiple BMPs are being installed, please sketch each BMP installed. Attach any drawings, photographs or other information that may be helpful to city staff in reviewing your application.

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Required Attachments:

☐ Photographs of each BMP

Date Photos were taken: _____ (must be no more than 60 days old)

If submitting photos of more than one stormwater BMP, label each photo with the "type of BMP installed".

☐ Signed Maintenance Agreement

☐ Homeowner Nutrient Management and Lawn Care Agreement, if applicable

☐ Stormwater Utility Fee Regional BMP Agreement, if applicable

☐ Construction Plans and Record Drawings, if available

Signature of Agreement

I hereby certify the above information to be true and correct to the best of my knowledge.

_____
Owner Printed Name

_____ _____
Owner Signature Date

FOR CITY USE ONLY

Application administratively complete ☐ Yes ☐ No
Reviewed by: _____ Date: _____

Application Status ☐ Approved ☐ Denied

If approved, amount of credit to be applied: $_____

Reviewed by: _____ Date: _____

Property Owner Contacted ☐ Yes
Contacted by: _____ Date: _____

If approved, Credit Applied ☐ Yes
Entered by: _____ Date: _____

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APPENDIX B. TREE CANOPY CHART

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TREE CANOPY CHART

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JANUARY 2015

Tree Canopy Coverage after 10 Years

Based on information from Virginia Nursery & Landscape Association, Inc., and "tree Canopy Spread and coverage in Urban Landscapes database dated 11/3/2010.
http://dendro.cnre.vt.edu/predictions/canopy.cfm

Latin Name	Common Name(s)	Planting Size		Tree Canopy Coverage After 10 Years©
		Height - in feet	Caliper - in inches	
		See Note 1 below.		(square feet)
DECIDUOUS TREES:				
Acer barbatum	Florida Maple, Southern Sugar Maple	6-7		87
A. buergeranum	Trident Maple	6-7		64
A. campestre	Hedge Maple	6-7		64
A. ginnala	Amur Maple	6-7		64
A. palmatum	Japanese Maple	6-7		64
A. platanoides	Norway maple		2-2 1/2	143
A. pseudoplatanus	Sycamore maple		2-2 1/2	143
A. rubrum	Red Maple		2-2 1/2	143
A. saccharum	Sugar Maple, Rock Maple		2-2 1/2	143
A. truncatum 'Pacific Sunset'	Pacific Sunset' Maple			177
A. x freemanii 'Autumn Blaze'	Autumn Blaze' Maple		2-2 1/2	154
Aesculus flava	Yellow Buckeye, Common Buckeye	6-7		64
A. glabra	Ohio Buckeye, American Buckeye	6-7		64
A. hippocastanum	Horse-Chestnut, Conker Tree		2-2 1/2	143
A. pavia	Red Buckeye, Firecracker Plant	6-7		71
Alnus glutinosa	Common Alder, Black Alder		2-2 1/2	95
Amelanchier arborea	Downy Serviceberry, Common Serviceberry	6-7		95
A. laevis	Smooth Shadbush, Allegheny Serviceberry			95
Amelanchier canadensis	Canadian Serviceberry, Chuckleberry	2-5		33
Amelanchier x grandiflora		2-5		44
Betula maximowicziana	Monarch Birch		2-2 1/2	95
B. nigra	Black Bustard		2-2 1/2	165
B. papyrifera	White Birch, Canoe Birch		2-2 1/2	95
B. platyphylla	Japanese White Birch		2-2 1/2	95
B. populifolia	Gray Birch	6-7		64
Carpinus betulus 'Fastigiata'			2-2 1/2	38
C. caroliniana	American Hornbeam		2-2 1/2	95
Carya alba			2-2 1/2	79
C. illinoinensis	Pecan Tree		2-2 1/2	201
C. ovata	Shagbark Hickory		2-2 1/2	104
Castanea mollissima	Chinese Chestnut		2-2 1/2	95
Celtis laevigata	Sugarberry, Southern Hackberry		2-2 1/2	133
C. occidentalis	Common Hackberry		2-2 1/2	165
Cercidiphyllum japonicum	Katsura Tree	6-7		64
Cercis canadensis	Eastern Redbud	6-7		95
C. chinensis	Chinese Cryptocarya	6-7		64
Chioanthus virginicus	White Fringetree	6-7		64
Chionanthus retusus	Chinese Fringetree	2-5		87
Cladrastis lutea	Kentucky Yellowwood, American Yellowwood		2-2 1/2	143
Cornus florida	Dogwood	6-7		64
C. kousa	Kousa Dogwood	6-7		95
C. mas		6-7		38
Corylus colurna	Turkish Hazel	6-7		64
Cotinus coggygria	Smoketree	6-7		64
Crataegus crusgalli	Cockspur Hawthorn, Cockspur Thorn	6-7		95
C. phaenopyrum	Washington Hawthorn, Washington Thorn	6-7		64
C. viridis		6-7		64
Diospyros virginiana	American Persimmon, Common Persimmon		2-2 1/2	95
Elaeagnus angustifolia	Silver Berry, Oleaster, Persian Olive	6-7		95
Eucommia ulmoides	Chinese Rubber Tree		2-2 1/2	95
Fagus grandifolia	American Beech, North American Beech		2-2 1/2	95
F. sylvatica	European Beech, Common Beech		2-2 1/2	95
Franklinia alatamaha	Franklin Tree	6-7		64
Fraxinus americana	Biltmore Ash, Biltmore White Ash		2-2 1/2	143
F. angustifolia		6-7		104
F. pennsylvanica	Green Ash, Red Ash		2-2 1/2	95
'Marshall's Seedless'	'Marshall's Seedless' Green Ash			95
'Patmore' & 'Summit'	'Patmore' & 'Summit' Green Ash			95

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Tree Canopy Coverage after 10 Years

Based on information from Virginia Nursery & Landscape Association, Inc., and "tree Canopy Spread and coverage in Urban Landscapes database dated 11/3/2010.
http://dendro.cnre.vt.edu/predictions/canopy.cfm

Latin Name	Common Name(s)	Planting Size		Tree Canopy Coverage After 10 Years©
		Height - in feet	Caliper - in inches	
		See Note 1 below.		(square feet)
'Sentry'			2-2 1/2	38
Ginkgo biloba 'Autumn Gold'	Autumn Gold' Tree		2-2 1/2	87
Gleditsia	Locust Tree		2-2 1/2	165
triacanthos var. inermis	Honey Locust Tree		2-2 1/2	165
'Imperial' & 'Skyline'			2-2 1/2	165
Shademaster'			2-2 1/2	165
Gymnocladus dioicus	Kentucky Coffeetree		2-2 1/2	95
Halesia tetraptera	Common Silverbell, Carolina Silverbell	2-5		64
Hammamelis virginiana	American Witch-Hazel	2-5		87
Juglans nigra	Eastern Black Walnut		2-2 1/2	143
J. regia	Persian Walnut, English Walnut	6-7		177
Koelreuteria paniculata	Goldenrain Tree, Pride of India, China Tree	6-7		64
Lagerstroemia indica	Crape Myrtle, Crepe Myrtle	6-7		38
Larix decidua	European larch		2-2 1/2	133
L kaempferi		6-7		57
Liquidamber styraciflua	American Sweetgum, Sweetgum		2-2 1/2	143
Liquidambar styraciflua 'Rotundiloba'			2-2 1/2	87
Liriodendron tulipifera	Tulip Tree, American Tulip Tree		2-2 1/2	143
Maackia amurensis	Amur Maackia	2-5		95
Magnolia acuminata	Cucumber Tree		2-2 1/2	64
M. macrophylla	Bigleaf Magnolia	6-7		50
M. x soulangiana	Saucer Magnolia	6-7		64
M. stellata	Star Magnolia	6-7		28
M. virginiana	Sweetbay Magnolia	6-7		64
Malus spp.		6-7		79
Metasequoia glyptostroboides	Dawn Redwood		2-2 1/2	64
Nyssa sylvatica	Black Tupelo, Tupelo, Black Gum		2-2 1/2	64
Ostrya virginiana	American Hophornbeam	6-7		57
Oxydendron arboreum	Sourwood, Sorrel Tree	6-7		64
Parrotia persica	Persian Ironwood	6-7		79
Phellodendron amurense	Amur Cork Tree		2-2 1/2	133
Pistacia chinensis	Chinese Pistache		2-2 1/2	154
Platanus x acerifolia	London Plane, London Planetree		2-2 1/2	177
P. occidentalis	American Sycamore		2-2 1/2	227
Prunus cerasifera	Cherry Plum, Myrobalan Plum	6-7		64
P. persica	Peach Tree	6-7		38
P. sargentii	Sargent's Cherry, North Japanese Hill Cherry	6-7		64
P. serotina	Black Cherry, Wild Black Cherry	6-7		95
P. serrulata	Japanese Cherry	6-7		64
P. serrulata 'Kwanzan'	Hill Cherry, Oriental Cherry	6-7		64
P. subhirtella	Spring Cherry, Higan cherry	6-7		64
P. x yedoensis	Yoshino Cherry	6-7		64
Pyrus calleryana	Callery Pear		2-2 1/2	0
'Aristocrat'			2-2 1/2	143
'Autumn Blaze'			2-2 1/2	95
'Bradford'			2-2 1/2	143
'Capital'			2-2 1/2	38
'Chanticleer'			2-2 1/2	38
'Redspire'			2-2 1/2	95
'Whitehouse'			2-2 1/2	64
Quercus acutissima	Sawtooth Oak		2-2 1/2	64
Q. alba	White Oak		2-2 1/2	95
Q. bicolor			2-2 1/2	95
Q. coccinea	Scarlet Oak		2-2 1/2	95
Q. falcata	Southern Red Oak or Spanish Oak		2-2 1/2	227
Q. imbricaria	Shingle Oak		2-2 1/2	133
Q. laurifolia	Swamp Laurel Oak, Diamond-leaf Oak, Water Oak		2-2 1/2	95
'Darlington'			2-2 1/2	64

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Tree Canopy Coverage after 10 Years

Based on information from Virginia Nursery & Landscape Association, Inc., and "tree Canopy Spread and coverage in Urban Landscapes database dated 11/3/2010.
http://dendro.cnre.vt.edu/predictions/canopy.cfm

Latin Name	Common Name(s)	Planting Size		Tree Canopy Coverage After 10 Years©
		Height - in feet	Caliper - in inches	
		See Note 1 below.		(square feet)
Q. lyrata			2-2 1/2	177
Q. macrocarpa	Bur Oak		2-2 1/2	95
Q. michauxii	Swamp Chestnut Oak		2-2 1/2	214
Q. muehlenbergii	Chinkapin Oak		2-2 1/2	254
Q. nigra	Water Oak		2-2 1/2	133
Q. nuttallii			2-2 1/2	104
Q. palustris	Swamp Spanish oak		2-2 1/2	143
Q. phellos	Willow Oak		2-2 1/2	95
Q. prinus	Chestnut Oak		2-2 1/2	95
Q. robur	English Oak, Pedunculate Oak		2-2 1/2	95
'Fastigiata'	'Fastigiata' European Hornbeam		2-2 1/2	38
Q. rubra	Northern Red Oak or Champion Oak		2-2 1/2	143
Q. shumardii	Shumard Oak		2-2 1/2	123
Q. velutina	Eastern Black Oak, Black Oak		2-2 1/2	143
Robinia pseudoacacia	Black Locust		2-2 1/2	64
Sassafras albidum	Sassafras, White Sassafras, Red Sassafras	6-7		71
Sophora japonica	Chinese Scholar, Japanese Pagodatree		2-2 1/2	95
Sorbus alnifolia	Alder-leafed Whitebeam, Korean Whitebeam		2-2 1/2	95
Stewartia koreana	Korean Stewartia	6-7		38
S. ovata		6-7		38
S. pseudocamellia	Japanese Stewartia	6-7		38
Styrax japonicus	Japanese Snowbell	6-7		64
Syringa reticulata	Japanese Tree Lilac	6-7		38
Taxodium ascendens	Pond Cypress		2-2 1/2	0
T. disticum			2-2 1/2	64
Tilia americana	American Basswood		2-2 1/2	143
'Legend' & 'Redmond'			2-2 1/2	143
T. cordata	Small-leaved Lime, Smallleaved Linden		2-2 1/2	95
'Glenleven' & 'Greenspire'			2-2 1/2	95
T. tomentosa	Silver Lime, Silver Linden		2-2 1/2	143
U. americana 'Princeton'			2-2 1/2	154
U. hollandica 'Groenveldt'			2-2 1/2	143
U. japonica x wilsoniana 'Accolade'			2-2 1/2	104
U. parvifolia	Chinese Elm, Lacebark Elm		2-2 1/2	95
Viburnum prunifolium	Blackhaw, Black Haw	6-7		10
Zelkova serrata			2-2 1/2	95
EVERGREEN TREES:				
Abies concolor	White Fir	6-7		38
A. fraseri	Fraser fir	6-7		38
Calocedrus decurrens	California Incense Cedar	6-7		13
Cedrus atlantica	Atlas Cedar	6-7		38
C. deodara	Deodar Cedar	6-7		64
Chamaecyparis lawsoniana	Lawson Cypress	6-7		38
C. obtusa	Japanese Cypress, Hinoki Cypress	6-7		13
C. pisifera 'Plumosa'	Sawara Cypress	6-7		28
C. thyoides	Atlantic White Cedar	6-7		28
Cryptomeria japonica	Japanese Cedar	6-7		38
Cunninghamia lanceolata	China Fir, Taiwan Fir	6-7		38
x Cupressocyparis Leylandii	Leyland Cypress		2-2 1/2	64
Ilex aquifolium	Holly, Common Holly, English Holly	6-7		20
I. x attenuata 'Fosteri'		6-7		38
I. x 'Nellie R. Stevens'		6-7		50
I. opaca	American Holly	6-7		28
I. vomitoria	Yaupon or Yaupon Holly	6-7		28
Juniperus chinensis	Chinese Juniper	6-7		38
'Denserecta'		6-7		7
'Hetzii Columnaris'		6-7		7
'Keteleeri'		6-7		20
'Robusta Green'		6-7		13
'Torulosa'		6-7		7

DRAFT

Tree Canopy Coverage after 10 Years

Based on information from Virginia Nursery & Landscape Association, Inc., and "tree Canopy Spread and coverage in Urban Landscapes database dated 11/3/2010.
http://dendro.cnre.vt.edu/predictions/canopy.cfm

Latin Name	Common Name(s)	Planting Size		Tree Canopy Coverage After 10 Years©
		Height - in feet	Caliper - in inches	
		See Note 1 below.		(square feet)
J. scopulorum	Rocky Mountain Juniper	6-7		0
'Blue Heaven'	'Blue Heaven' Rocky Mountain Juniper	6-7		13
'Cologreen'	'Cologreen' Rocky Mountain Juniper	6-7		7
'Columnaris'	'Columnaris' Rocky Mountain Juniper	6-7		7
'Erecta Glauca'	'Erecta Glauca' Rocky Mountain Juniper	6-7		13
'Gray Gleam'	'Gray Gleam' Rocky Mountain Juniper	6-7		7
'Moonglow'	'Moonglow' Rocky Mountain Juniper	6-7		7
J. virginiana	Red Ccedar, Eastern Red-Cedar	6-7		13
'Canaertii'				13
'Manhattan Blue'				7
'Princeton Sentry'				7
Magnolia grandiflora	Southern Magnolia, Bull Bay		2-2 1/2	133
M. grandiflora 'Little Gem'	'Little Gem' Southern Magnolia	2-5		10
Picea abies	Norway Spruce	6-7		95
P. glauca	White Spruce	6-7		64
'Conica'	Common Pyramidal Evergreen Shrub	3-4		5
P. omorika	Serbian Spruce	6-7		13
P. pungens	Blue Spruce, Colorado Spruce	6-7		44
P. pungens 'Hoopsii, Thompsenii'	Hoops Blue Spruce, Thompsen Blue Spruce	6-7		44
Pinus bungeana	Lacebark Pine		2-2 1/2	38
P. echinata	Shortleaf Pine		2-2 1/2	95
P. elliotti	Slash Pine		2-2 1/2	95
P. nigra	Black Bamboo		2-2 1/2	64
P. rigida	Pitch Pine		2-2 1/2	64
P. strobus	Eastern White Pine, White pine, Northern White Pine		2-2 1/2	95
P. sylvestris	Scots Pine		2-2 1/2	64
P. taeda	Loblolly Pine		2-2 1/2	95
P. thunbergiana			2-2 1/2	64
P. virginiana	Bitter-berry, Chokecherry, Virginia Bird Cherry		2-2 1/2	95
Pseudotsuga menziesii	Oregon Pine or Douglas Spruce	6-7		64
Quercus virginiana	Southern Live Oak		2-2 1/2	123
Taxus baccata	Common Yew, European Yew	6-7		28
'Fastigiata'		2-3		10
T. cuspidata	Japanese Yew, Spreading Yew	6-7		13
'Capitata'	'Capitata' Japanese Yew	3-5		38
Thuja occidentalis	Northern White-Cedar	6-7		13
T. orientalis	Bulrush, Bullrush, Cumbungi	6-7		13
T. plicata 'Green Giant'		2-5'		7
Tsuga canadensis	Eastern Hemlock or Canadian Hemlock	6-7		64
T.caroliniana	Carolina Hemlock	6-7		95

DRAFT

Notes:

1. These values refer to nursery stock size commonly available. For some species, they are sold based on nursery stock height. For others, they are sold based on trunk diameter (caliper) at 6" above soil surface. Shrubby species tend to be reported as heights whereas tree-form species are reported as calipers. Most of the trees in the table are listed as 2" to 2.5" caliper and most of the shrubs are reported as 6' to 7' height. A few of the smaller shrub species are reported as 2' to 5' height.

2. Certain species of trees are less suitable than others in urban and suburban environments due to undesirable characteristics. Although these species may be retained on site in natural setting, the following species are not recommended for planting in landscaping areas:

The species listed below are NOT recommended for urban landscaping.

Latin Name	Common Names(s)
Acer negundo	Box Elder
Acer saccharinum	Silver Maple
Ailanthus altissima	Tree of Heaven
Albizia julibrissin	Mimosa
Betula pendula	White Birch
Gingko biloba (female only)	Gingko
Maclura pomifera (female only)	Osage-Orange
Morus species	Mulberries
Paulownia tomentosa	Empress Tree
Populus species	Poplars
Salix species	Willows
Ulmus Americana	American Elm
Ulmus pumila	Siberian Elm

APPENDIX C. STORMWATER UTILITY MAINTENANCE AGREEMENT

DRAFT

Date of Submittal: _____

Credit Application ID: _____

City of Harrisonburg, Virginia
Department of Public Works
320 East Mosby Road
Harrisonburg, VA 22801
540·434·5928
stormwater@harrisonburgva.gov

Stormwater Utility Fee Maintenance Agreement

For use with Voluntarily Installed Non-Residential and Residential BMPs

DRAFT

This Agreement, made and entered into this ____ day of _____, by and between _____ ("Property Owner") and the City of Harrisonburg, a Virginia municipal corporation, ("City").

The City and the Property Owner(s) agree to the following terms and conditions as follows:

The Property Owner(s) is the owner of that certain parcel of land located within the City at (ADDRESS)_____, Harrisonburg, Virginia and designated on the Harrisonburg City Tax Map as parcel _____(the "Property"). The Property Owner(s) has submitted to the City a credit application pursuant to the City's Stormwater Utility Fee Credit Program for certain stormwater management BMP facilities located on the Property.

The City requires that any on-site stormwater management BMP, as outlined in the credit application, be adequately constructed, operated, and maintained by the Property Owner(s).

1. Location of the Facility. The on-site stormwater management BMP facility (check one) □ located on the Property or □ on Harrisonburg City Tax Map as parcel _____, has been constructed by the Property Owner(s) in accordance with the specifications identified in the appropriate Stormwater Utility Fee Credit Manual for Non-Residential or Residential.

2. Commitment to Operation and Maintenance of Facility. The Property Owner(s), including any homeowners association, shall adequately operate, inspect, and maintain the stormwater management BMP facilities in accordance with the specific operation, inspection, and maintenance requirements set forth in the attachment to the maintenance agreement.

3. Documentation. The Property Owner(s) shall document any maintenance, landscaping, and repairs performed to the on-site stormwater management BMP facilities on the City's Maintenance Record form and provide a copy of said Maintenance Record to the City or its representatives upon request. Regular inspection by the Property Owner(s) is encouraged, but submittal of inspection forms to the City is not required.

4. Right of Entry on Property. The Property Owner(s) grants permission to the City and its authorized agents and employees, to enter upon the Property at reasonable times and upon presentation of proper identification, to inspect the stormwater management BMP facilities whenever the City deems necessary. Except for emergencies, City representatives shall use reasonable efforts to provide at least a 24 hour

notice to the Property Owner(s) before entry upon the Property. The purpose of inspections is to assure safe and proper functioning of the facilities, follow-up on suspected or reported deficiencies, and/or to respond to citizen complaints. In the event any deficiency is observed during an inspection, the City shall provide the Property Owner(s) copies of the inspection findings and a directive with timeline to commence any necessary repairs.

5. Failure to Maintain. In the event the Property Owner(s) fails to operate and maintain the stormwater management BMP facilities in good working condition and in accordance with the attachment, the City will notify the Property Owner(s) in writing of deficiencies and required maintenance actions. If maintenance actions are not corrected by the Property Owner(s) within 90 days after notification is sent, the revocation of stormwater utility fee credits will take effect immediately and this maintenance agreement is voided. It is expressly understood and agreed that the City is under no obligation to maintain or repair said stormwater management BMP facilities, and in no event shall this Agreement be construed to impose any such obligation on the City.

The Property Owner(s) may reinstate their credit by following the procedures and requirements outlined in the appropriate Stormwater Utility Fee Credit Manual for Non-Residential or Residential.

6. Credit Effective Dates. Credits will be valid for five (5) years from the date of application approval or until transfer of ownership (i.e. sale of the property to another party), whichever is first. The Property Owner(s) will need to re-apply for the credit every five (5) years. Credits do not transfer with ownership changes.

7. Release of City. The Property Owner(s), its successors and assigns, shall release the City, its elected officials, offices, employees and designated representatives, from all damages, accidents, casualties, occurrences, or claims or causes of action which might arise from or be asserted against said City, its elected officials, offices, employees, and representatives related to the construction, presence, existence, operative or maintenance of the stormwater management BMP facilities by the Property Owner(s) or City. In the event that such a claim is asserted, the City shall promptly notify the Property Owner(s) and the Property Owner(s) shall defend, indemnify, and hold harmless the City, its elected officials, City Officers or employees, and its associated individuals, in any suit or action based on the claim.

8. Attachments.

- ☐ Description of Operation, Inspection, and Maintenance Requirements (provided by property owner)

DRAFT

Upon signing this document, The City and the Property Owner(s) agree to the terms and conditions as outlined above and as described in the appropriate Stormwater Utility Fee Credit Manual for Non-Residential or Residential effective on the date signed.

_____
Owner Printed Name

_____ _____
Owner Signature Date

_____ _____
Witness Date

_____
City Official Printed Name and Title

_____ _____
City Official Signature Date

_____ _____
Witness Date

DRAFT

APPENDIX D. HOMEOWNER NUTRIENT MANAGEMENT AND LAWNCARE AGREEMENT

DRAFT

Date Received: _____

Credit Application ID: _____

City of Harrisonburg, Virginia
Department of Public Works
320 East Mosby Road
Harrisonburg, VA 22801
540·434·5928
stormwater@harrisonburgva.gov

Homeowner Nutrient Management and Lawn Care Agreement

DRAFT

General Information:

Parcel Information

Tax Map Parcel Number: _____

Parcel Street Address: _____

Owner Information

Owner Name (Last, First, M.I.): _____

Owner Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number(w/Area Code): (_____)_____ Email: _____

Nutrient Management Information

If all the selected provisions of the Nutrient Management Agreement are followed this Agreement is valid for 5 years from the date of application approval before re-submittal is required.

Acreage of turf and landscape covered by this Agreement: _____

Nutrient Management Provisions

Read the following and check each provision you will implement on your lawn. Items 1 and 2 are required. For items 3-9, at least two provisions must be followed.

1. ☐ Maintain a dense cover of grass or conservation landscaping to reduce runoff, prevent erosion, and retain nutrients ***Mandatory**

    - Dense grass or plant cover helps to reduce surface runoff which can be responsible for significant nutrient loss from the lawn, regardless of whether it is fertilized or not. Lawns with poor turf cover have a high risk for nutrient loss, especially if soils are compacted or slopes are steep. Any bare spots or eroding

areas should be reseeded, and may require some soil amendments, spot fertilization and, in extreme cases, stabilized with a biodegradable erosion control cover.

2. Reduce or Eliminate Fertilizer ***Choose one option**

- You have three fertilization options to reduce the risk that fertilizer from your lawn will reach local waterways, depending on the conditions of your lawn and your aesthetic preferences. If you are entering into a Nutrient Management Agreement, you are required to choose one of the following options:

1. ☐ **OPTION 1**: The easiest strategy is to not fertilize at all, which make sense for lawns that are relatively flat and mature, and have a dense grass cover. This strategy relies on soil mineralization, lawn clippings and atmospheric deposition to supply the nutrients needed for growth, but should NOT be used on lawns that have poor turf cover or exposed soils.

2. ☐ **OPTION 2**: The second strategy relies on a "reduced rate and monitor" fertilization approach. In this strategy, you only apply one-third to a half of the recommended application rate on the fertilizer bag label, and then monitor how your lawn responds over the next couple of months. If you are unsatisfied with the look of your lawn at that point, you can always re-apply fertilizer at the smaller dose. In most situations, however, you will find it hard to notice much of a difference in how good your lawn looks.

3. ☐ **OPTION 3**: The third strategy is to fertilize at the recommended nitrogen fertilization rate but split it into 3 or 4 small doses during the growing season. Individual application rates should be no more than 0.9 pound of nitrogen per 1,000 square feet of lawn in most parts of the local watershed. When assessing your property, we recommended that you measure your lawn area which will help you to figure out how much fertilizer you will need to buy. If you choose to fertilize, the following practices can further reduce the risk that fertilizer you do apply ever reaches local waterways.

4. ☐ **OPTION 4**: Apply fertilizers based on soil test results. Soil samples collected by homeowners can be analyzed by the Virginia Cooperative Extension. More information on soil testing is available at www.soiltest.vt.edu.

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- The following is an additional list of places in Virginia where you can get a soil test analysis to see what (if any) fertilizer is required for your lawn. (http://pubs.ext.vt.edu/452/452-129/452-129.html; http://www.soiltest.vt.edu/; http://www.al-labs-eastern.com/; http://www.lynnhavenrivernow.org/files/pages/Soil_sample_April_2010.pdf)

For items 3-9, choose two or more provisions to follow.

3. ☐ Do not apply fertilizers before spring green up or after the grass becomes dormant **(applies to Options 2-4)**

    - Researchers have concluded that the highest fertilizer loss occurs in the winter when grass is dormant. In the northern part of the Bay watershed, dormancy usually begins around Halloween, whereas it begins around Thanksgiving in the southern part of the watershed.

4. ☐ Maximize use of slow release N fertilizer **(applies to Options 2-4)**

    - The risk of nutrient loss during the growing season can be further reduced if you buy slow release fertilizer products. Check the bag label when you shop to see how much water insoluble nitrogen or WIN it contains -- at least 20 to 50% of WIN is generally desirable.

5. ☐ Immediately sweep off any fertilizer that lands on paved surface **(applies to Options 2-4)**

    - Rotary spreaders are the most common method to apply fertilizers and can broadcast fertilizer granules near the edge of the lawn, street, or driveway, where they can be washed away in the next storm. Some experts think as much as 2 to 4% of applied fertilizer can be washed away in this manner. If you are buying a new spreader, consider models that have side broadcast deflectors that can sharply reduce off-target fertilization.

6. ☐ Never apply fertilizer within 15 to 20 feet of any water feature and manage this zone as a grass, meadow, or forest buffer **(applies to Options 2-4 and only if the property owner(s) has a water feature on-site)**

    - The risk of nutrient loss is also high when fertilizer is applied close to water features such as swales, drainage ditches, streams, shorelines, sinkholes and wetlands. Create a “fertilizer free” buffer zone around these water features and manage this are as a conservation landscape. Even if you don’t fertilize your lawn, there are still other good practices to make you yard more environmentally-friendly.

DRAFT

7. ☐ Keep lawn clippings and mulched leaves on the lawn and keep them out of streets and storm drains **(applies to ALL options)**

    - Lawn clippings are an important nutrient and organic matter source which can enhance the health of your soils and your lawn. Using a composting lawn mower to keep the clippings on your lawn adds about one pound of N per 1,000 square feet of natural (and free) fertilizer to your lawn each year. You should treat lawn clippings and tree leaves as if they were a bag of fertilizer, and strive to keep them on your lawn, and out of the gutter, street, or storm drain system. When you rake your leaves in the Fall, it is good practice to run over them with your composting mower to mulch them into small fragments and add them to your compost pile in the backyard. Come late Spring, they will decompose into a fine organic mulch that you can add to your rain garden or conservation landscape as a top dressing (assuming that you turn over the pile every couple of months). Another option is to follow the yard debris and bulk collection schedule in the City of Harrisonburg. http://www.harrisonburgva.gov/bulk-collection

8. ☐ Set mower height at 3 inches or taller **(applies to ALL options)**

    - Maintaining taller grass produces a deeper and more extensive root system, which in turn, increases nutrient uptake and reduces lawn runoff volume. The deeper roots also reduce the need for supplemental irrigation during times of drought, suppress weeds and increase turf density.

9. ☐ Use a professional lawn care service participating in the Water Quality Agreement Program with the Virginia Department of Conservation and Recreation (http://dcr.virginia.gov/soil_and_water/documents/wqagree.pdf).

    Do you hire a landscaping company to apply fertilizer/pesticide to your lawn)? Yes ☐ No ☐

    Annual Nitrogen and Phosphorus fertilization rate, if any: _____

Signature of Agreement

Upon signing this document, I agree to follow the selected responsible lawn care maintenance items for the extent of the Agreement and for the total land area listed in this Agreement.

_____

Owner Printed Name

_____ _____

Owner Signature Date

DRAFT

Additional Resources

Virginia Cooperative Extension – Urban Nutrient Management; http://www.ext.vt.edu/topics/lawn-garden/urban-nutrient-management/index.html

Example Homeowner Nutrient Management Plan (VA DCR); http://www.dcr.virginia.gov/soil_and_water/documents/nmtmsc-example_home_lawn_nmp.pdf

Chesapeake Bay Urban Nutrient Management Guidance; http://www.chesapeakebay.net/documents/Final_CBP_Approved_Expert_Panel_Report_on_Urban_Nutrient_Management--short.pdf

DRAFT

APPENDIX E. STORMWATER UTILITY FEE CREDIT RE-APPLICATION

DRAFT

Date Received: _____

Credit Application ID: _____

City of Harrisonburg, Virginia
Department of Public Works
320 East Mosby Road
Harrisonburg, VA 22801
540·434·5928
stormwater@harrisonburgva.gov

Stormwater Utility Fee Credit Re-Application

DRAFT

General Information:

Parcel Information

Tax Map Parcel Number: _____

Parcel Street Address: _____

☐ Residential ☐ Non-Residential

Owner Information

Owner Name (Last, First, M.I. or Business): _____

Owner Mailing Address: _____

City: _____ State: _____ Zip Code: _____

If Business, Contact Name (Last, First, M.I.): _____

Phone Number (w/Area Code): (_____)_____ Email: _____

Credit Information:

1. Since the last application/re-application, has there been any new construction surrounding the stormwater BMP(s)?

   ☐ No ☐ Yes (If yes, please explain):

   _____

   _____

   _____

2. Since the last application/re-application, have any changes been made to the stormwater BMP(s)? Be sure to document all maintenance, landscaping, and repairs on the Maintenance Record form.

   ☐ No ☐ Yes (If yes, please explain):

   _____

_____
_____

3. Has any new impervious area been added or removed on your parcel?

☐ No ☐ Yes (If yes, please explain):

_____
_____
_____

Required Attachments:

☐ Photographs of each stormwater BMP within 60 days of re-application

Date Photos were taken: _____

If submitting photos of more than one stormwater BMP, label each photo with the type of BMP installed.

☐ For Non-Residential, Category A or B stormwater BMP(s), provide a copy of the Inspection Form that has been certified by a Professional Engineer. See the City's Design & Construction Standards Manual, Appendix J, http://www.harrisonburgva.gov/dcsm. The Stormwater BMP Post-Construction Inspection Policy in Appendix J references the required Inspection Form.

Signature of Agreement

I hereby certify the above information to be true and correct to the best of my knowledge.

_____
Owner Printed Name

_____ _____
Owner Signature Date

_____

FOR CITY USE ONLY

Application administratively complete ☐ Yes ☐ No
Reviewed by: _____ Date: _____

Re-application Status Determination ☐ Approved ☐ Denied
Reviewed by: _____ Date: _____

Property Owner Contacted ☐ Yes
Contacted by: _____ Date: _____

DRAFT

APPENDIX F. STORMWATER UTILITY FEE PETITION FOR ADJUSTMENT FORM

DRAFT

Date Received: _____

Credit Application ID: _____

City of Harrisonburg, Virginia
Department of Public Works
320 East Mosby Road
Harrisonburg, VA 22801
540·434·5928
stormwater@harrisonburgva.gov

Stormwater Utility Fee Petition for Adjustment Form

DRAFT

General Information:

Parcel Information

Tax Map Parcel Number: _____

Parcel Street Address: _____

Owner Information

Owner Name (Last, First, M.I. or Business): _____

Owner Mailing Address: _____

City: _____ State: _____ Zip Code: _____

If Business, Contact Name (Last, First, M.I.): _____

Phone Number(w/Area Code): (_____)_____ Email: _____

Reason for Petition (Check Applicable)

- ☐ Error made regarding square footage of the impervious area of the property
- ☐ Property is eligible to be "fee waived" under provisions of City Code Section 6-5-4(g)
- ☐ Mathematical error in calculating the stormwater utility fee
- ☐ The party invoiced is not the owner of the property
- ☐ An approved credit was incorrectly applied

Application Checklist

- ☐ If the impervious area calculation is in question, a plot, plan, or map is provided showing dimensions of all impervious areas and identifying areas believed to be incorrect. If the areas are shown on city maps as impervious and the applicant believes these areas do not meet the impervious area definition, photo-documentation shall be provided.

Appeal Description and Statement (Please provide detailed information as to why you believe your Stormwater Utility Fee is in error. Include requested value, in the applicant's opinion, for the correct Stormwater Utility Fee associated with the property. Attach additional sheets if necessary.)

_____

_____

_____

_____

_____

_____

_____

_____

_____

Signature of Agreement

I hereby certify the above information to be true and correct to the best of my knowledge.

_____
Owner Printed Name

_____ _____
Owner Signature Date

DRAFT

FOR CITY USE ONLY

Application administratively complete ☐ Yes ☐ No
Reviewed by: _____ Date: _____

Petition for Adjustment Determination ☐ Granted ☐ Denied
Reviewed by: _____ Date: _____

Property Owner Contacted ☐ Yes
Contacted by: _____ Date: _____

If approved, adjustment applied? ☐ Yes ☐ No
Entered By: _____ Date: _____

APPENDIX G. STORMWATER UTILITY FEE BMP MAINTENANCE RECORD

DRAFT

City of Harrisonburg, Virginia
Department of Public Works
320 East Mosby Road
Harrisonburg, VA 22801
540-434-5928

Maintenance Record

Stormwater Utility Fee BMP Maintenance Record

This form should be kept on file by the property owner(s). It is the responsibility of the property owner(s) to track all stormwater facility maintenance activities for the purposes of credit re-application and compliance with the Maintenance Agreement (which should have been signed and submitted during the initial credit application process). All professional services should be noted on this form and attach any additional documentation needed to identify, explain, and verify that all maintenance recorded on this form is accurate.

Type of BMP:		Date of Installation:	
Tax Map Parcel Number:		Street Address:	
Date of Maintenance:	**Maintenance Performed:**	**Voluntary Upkeep or As Recommended by City Staff?**	**Additional Notes:**

DRAFT

Maintenance Record

Stormwater Utility Fee BMP Maintenance Record

Date of Maintenance:	Maintenance Performed:	Voluntary Upkeep or As Recommended by City Staff?	Additional Notes:

DRAFT

APPENDIX H. REGIONAL STORMWATER BMP AGREEMENT FORM

DRAFT

Date Received: _____

Credit Application ID: _____

City of Harrisonburg, Virginia
Department of Public Works
320 East Mosby Road
Harrisonburg, VA 22801
540·434·5928
stormwater@harrisonburgva.gov

Regional Stormwater BMP Agreement Form

DRAFT

Parcel Information – Location of BMP

Tax Map Parcel Number: _____

Parcel Street Address: _____

Type of BMP: _____

Total Number of Property Owners Sharing Obligations & Costs: _____

Property Owner #1 Information*

(*This person is the primary point of contact regarding this application. The stormwater BMP described above is located on property owned by this person or business.)

Owner Name (Last, First, M.I. or Business): _____

Owner Mailing Address: _____

City: _____ State: _____ Zip Code: _____

If Business, Contact Name (Last, First, M.I.): _____

Phone Number(w/Area Code): (_____)_____ Email: _____

I hereby certify that I share maintenance obligations and costs for the BMP listed above, and that the supplied information is true and correct to the best of my knowledge.

_____
Owner Printed Name

_____ _____
Owner Signature Date

Property Owner #2 Information

Owner Name (Last, First, M.I. or Business): _____

Owner Mailing Address: _____

City: _____ State: _____ Zip Code: _____

If Business, Contact Name (Last, First, M.I.): _____

Phone Number(w/Area Code): (_____)_____ Email: _____

I hereby certify that I share maintenance obligations and costs for the BMP listed above, and that the supplied information is true and correct to the best of my knowledge.

_____
Owner Printed Name

_____ _____
Owner Signature Date

If there are more than 2 owners, attach additional sheets.

FOR CITY USE ONLY

Application administratively complete ☐ Yes ☐ No

Reviewed by: _____ Date: _____

DRAFT