

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

Please refer to the credit manual for further information about each stormwater best management practice (BMP) and fill out this application to the best of your ability.

- For Pre-Installation Review *(Before the BMP is constructed/installed)*
- For Final Credit Application *(For pre-existing practices or BMPs that have been newly constructed/installed)*
- To Reinstate an Expired Credit *(For re-application of credits not yet expired, see Appendix E.)*

General Information:

Parcel Information

Tax Map Parcel Number(s): _____

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 Stormwater Best Management Practice (BMP) Installed:

- Roof Drain Disconnection** *(10-20% Credit Available. See Section 8.A. in Credit Manual.)*

Number of Disconnected Downspouts: _____

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

(See Web-GIS site and measure polygon tool on <http://www.harrisonburgva.gov/stormwater-utility>)

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

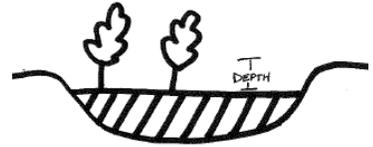
If yes, what is the other stormwater BMP* (rain garden, etc.): _____

*Make sure information for all BMPs is detailed in this application material.

Rain Garden (25-50% Credit Available. See Section 8.B. in Credit Manual.)

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)

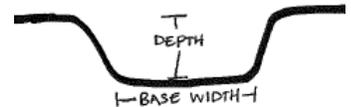
Type: _____ Quantity: _____

Vegetated Filter strip (10% Credit Available. See Section 8C in Credit Manual.)

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 (20% Credit Available. See Section 8.D. in Credit Manual.)

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 how you plan to use the water from your Rain Barrel/Cistern:

Regional BMP (50% Credit Available. See Section 8.E. in Credit Manual.)

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:

Urban Tree Planting (10% Credit Available. See Section 8.F. in Credit Manual.)

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 (10% Credit Available. See Section 8.G. in Credit Manual.)

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

(10% Credit Available. See Section 8.H. in Credit Manual.)

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

Impervious Cover Removal/Pervious Paver and/or Vegetated Roof Installation (See Section 8.I. in Credit Manual for more information.)

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

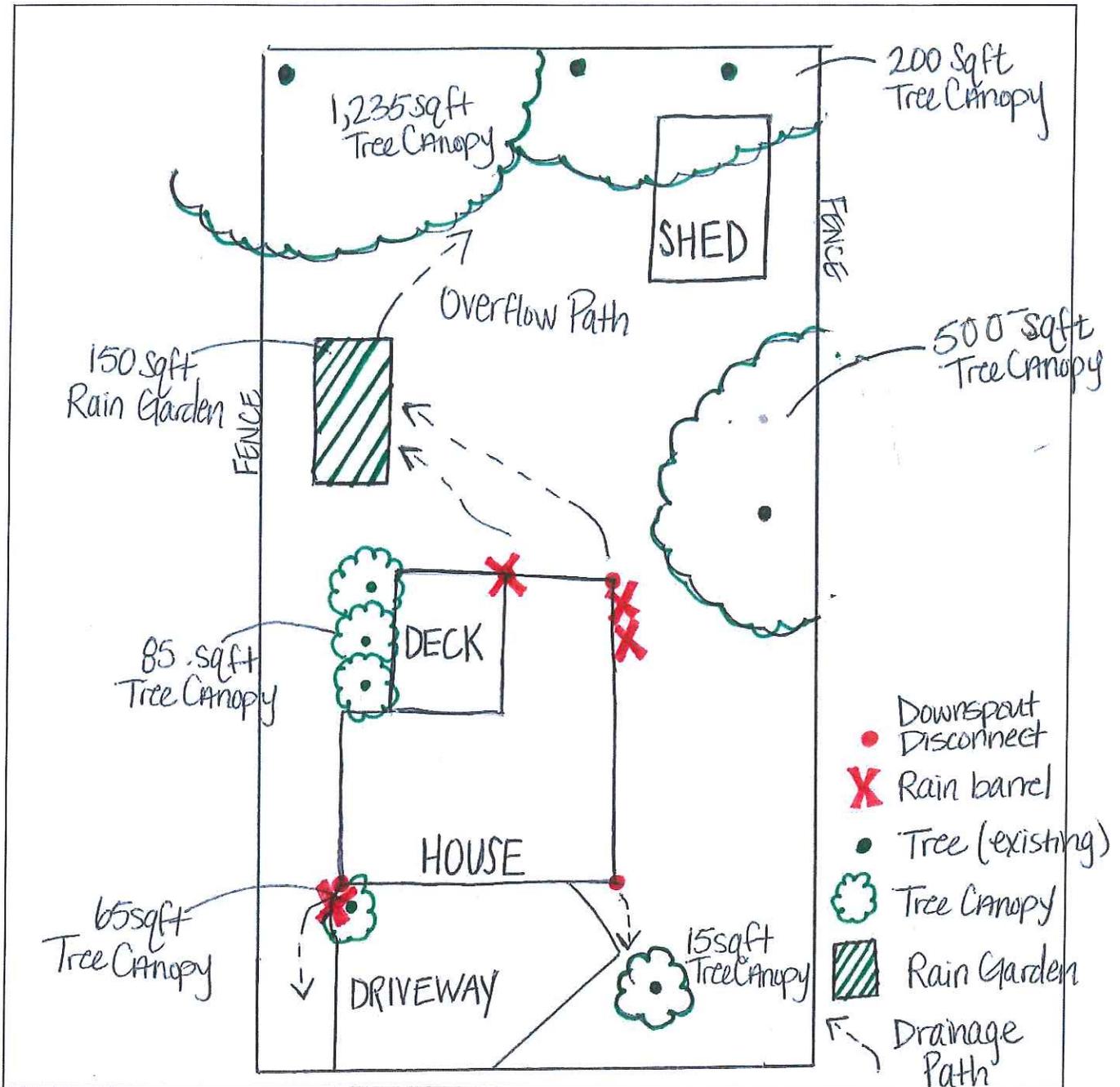
If a vegetated roof(s) will replace the impervious cover, explain the type of system installed:

For Pre-Application:

Will the services of a qualified installer be used for pervious paver/vegetated roof installation? Yes No

BMP and Property Sketch

Please use the space provided to give a general sketch of the stormwater management BMP(s) installed on your property. Include the location of rain barrels (if applicable), an outline of your deck/shed/driveway, an outline of your tree canopy (if applying for Tree Planting credit) and the square footage of rain gardens, conservation landscaping, and vegetated filter strips (if applicable). Alternatively, you may provide a sketch on an aerial map. Include square footage (if available) and drainage path(s) to the BMP(s) as well as the intended overflow drainage path away from the BMP(s). 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. A measurement tool is available on the Impervious Surface Map for Stormwater Utility Fee to assist with measuring the square footage of relevant BMP(s).



Required Attachments:

Photographs of each BMP (Except for Nutrient Management and Lawn Care Agreement & Tree Planting)
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 Stormwater Utility Fee 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. I agree that pollutant credits approved by the City of Harrisonburg as Stormwater Utility Fee Credits will no longer be available for any other use, including Virginia Stormwater Management Program requirements.

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: _____



(Above) Photos of the same rain barrels and downspout disconnect. Southwest corner of house.



(Above) Rain Barrel and downspout disconnect on back of house.



(Above) Rain Barrel and downspout disconnect in front of house. Northeast corner.



(Above) Downspout disconnect in front of house. Northwest corner.



(Above) Rain Garden in back of house. 150 sf.

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Homeowner Nutrient Management and Lawn Care Agreement

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.

Square Footage of turf covered by this Agreement: _____ Sq. Ft.

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.

- 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 area as a conservation landscape. Even if you don’t fertilize your lawn, there are still other good practices to make your yard more environmentally-friendly.

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

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

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Stormwater Utility Fee Maintenance Agreement

For new and pre-existing Residential BMPs

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)

9. Checklist. Mark all Residential on-site stormwater management BMPs pertaining to this agreement.

- Roof Drain Disconnection**
- Rain Garden**
- Vegetated Filter Strip**
- Rain Barrel/Cistern**
- Regional BMP**
- Tree Planting**
- Conservation Landscaping**
- Homeowner Nutrient Management and Lawn Care Agreement**
- Impervious Cover Removal, Including Permeable Hardscapes and Vegetated Roofs**

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

Residential Rooftop Disconnection BMP Maintenance Schedule and Guidelines

This document to be attached to the Stormwater Utility Fee Maintenance Agreement

Routine Maintenance Guidelines

Rooftop disconnections must be inspected to ensure that they operate in good working condition and in accordance with the approved design and specifications. Items in need of repair must be immediately addressed.

Routine Maintenance Tasks	Frequency
Remove trash and debris	As needed
Check and repair eroded areas	Annually
Inspect for downspout disconnection	Annually
Inspect for and remove any sediment accumulation	Annually
Check that pervious areas receiving flow have not been disturbed or converted	Annually

Residential Rain Garden Maintenance Schedule and Guidelines

This document to be attached to the Stormwater Utility Fee Maintenance Agreement

First Year Maintenance Guidelines

Successful establishment of rain garden areas requires that the following tasks be undertaken in the first year following installation:

- Initial inspections. For the first 6 months following construction, the rain garden area should be inspected at least twice after storm events that exceed 1/2 inch of rainfall.
- Spot reseeding. Inspect for bare or eroding areas in the contributing drainage area or around the rain garden area, and make sure they are immediately stabilized with grass cover.
- Watering. Watering is needed once a week during the first 2 months, and then as needed during first growing season (April-October), depending on rainfall.
- Remove and replace dead plants.

Routine Maintenance Guidelines

Rain garden areas must be inspected to ensure that they operate in good working condition and in accordance with the approved design and specifications. Items in need of repair must be immediately addressed.

Routine Maintenance Tasks	Frequency
Remove trash and debris	As needed
Check and repair eroded areas	Annually
Inspect for and remove excess sediment	Annually
Weed mulch	Twice during the growing season
Inspect plant composition for consistency with approved plans and correct any deficiencies	Annually
Remulch to maintain a 2-3 inch layer	Annually
Prune trees and shrubs	Annually
Inspect for clogging or ponding water in the filter bed	Annually
Remove invasive plants	As needed
Replace dead or damaged plant material	As needed
Repair broken pipes	As needed
Replace the mulch layer	Every 3 years

Residential Rain Barrels/ Cistern Maintenance Schedule and Guidelines

This document to be attached to the Stormwater Utility Fee Maintenance Agreement

Routine Maintenance Guidelines

Rain barrels and cisterns must be inspected to ensure they operate in good working condition and in accordance with the approved design and specifications. Items in need of repair must be immediately addressed.

All rain barrel and cistern components should be inspected by the homeowner twice per year.

Routine Maintenance Tasks	Frequency
Remove leaves and debris from gutters and downspouts	Semi-annually
Remove any algae growth	Semi-annually
Inspect and clean prescreening devices and first flush diverters	Quarterly
Inspect and clean storage tank lids	Annually
Inspect for and repair any clogging	Annually
Inspect and repair mosquito screens	Annually
Inspect tank and remove sediment build up	Every 3 years
Clear overhanging vegetation and trees over roof	Every 3 years
Check integrity of backflow preventer	Every 3 years
Inspect structural integrity of tank, pump, pipe, and electrical system and repair any damage	Every 3 years
Replace damaged or defective system components	As needed

Residential Tree Planting Maintenance Schedule and Guidelines

This document to be attached to the Stormwater Utility Fee Maintenance Agreement

For Newly Planted Trees - First Year Maintenance Guidelines

Successful establishment of trees requires that the following tasks be undertaken in the first year following installation:

- Watering. Deep water regularly throughout the first growing season. Allow water to run slowly, soaking the soil, once or twice a week. Water at the perimeter or edge of the planting site.
- Remove Stakes and Strapping after 1 year unless site is extremely windy. Do not stake longer than 2 years. Remove tree tubes when trees reach about 3-inches in diameter at the base.
- Keep grass and weeds out of mulched area.

Routine Maintenance Guidelines

Trees must be inspected to ensure good health.

Routine Maintenance Tasks	Frequency
Inspect and replace mulch as needed	Annually
Weed mulch	Twice during the growing season
Prune trees	Annually
Inspect tree health and correct any deficiencies	Annually