

## **A Guide to the Stormwater Quality Credits Program**

The Minneapolis Stormwater Quality Credits program offers Minneapolis residents and business owners a credit of up to fifty percent of monthly stormwater utility charges.

The purpose of the quality credits program is to encourage city residents to manage rainwater in ways that help deal with problems arising from stormwater runoff in an urban environment. In Minneapolis, as in other large cities, the large amount of impervious surfaces (hard surfaces, such as buildings areas, asphalt or cement, as well as heavily compacted soils) stop stormwater from naturally absorbing into the ground. The runoff from these areas transports materials such as de-icing salt, metals & petrochemicals from cars, excess fertilizer, pet waste and trace amounts of other common chemicals to receiving bodies of water and this is a major source of water pollution in urban areas. In an urban environment, the amount of impervious area on a property is the most significant factor affecting the quality and quantity of stormwater runoff .



By using stormwater Best Management Practices (also known as stormwater BMPs) property owners can partially duplicate the effect of the open areas and wetlands that provided natural drainage prior to urbanization. The Quality Credits program offers property owners a credit equivalent to fifty percent of the stormwater charges for the portion of their impervious area that drains to an approved stormwater quality management tool. Below is a partial list of stormwater BMPs approved for use in the Quality Credits program.

**Rain Gardens**

**Pervious Pavers**

**Wet Ponds**

**Dry Wells**

**Sand Filters**

**Filter Strips**

**Infiltration trenches**

**Green Roofs**

While the reduction in monthly charges offered by the Stormwater Quality Credit may not seem large for some smaller sites, there are other potential benefits to participation in the program. In addition to creating a more sustainable urban environment many stormwater BMPs can be constructed as attractive landscape features that add to the “curbside appeal” of a location and significantly increase property values. According to many realtors well conceived landscape projects are one of the best investments available to property owners, dramatically outperforming the return given by costlier projects such as room additions or kitchen and bath upgrades . In light of these various benefits participation in the Stormwater Quality Credits Program adds up to a contribution towards the common good and a common sense investment for the individual property owner.

### **Frequently Asked Questions (FAQ)**

Since the inception of the current Minneapolis Stormwater Utility Fee in early 2005 the Public Works Department has responded to several thousand requests for information on individual accounts and reviewed hundreds of Stormwater Credit applications. On the following page are answers to some of the most frequently asked questions received by staff regarding the Stormwater Quality Credit Program.

**FAQ:**

**1. I don't see that any rain leaves my yard when it rains. Why don't my lawn and garden areas count as stormwater BMPs?**

While a typical rain shower of a few tenths to one quarter of an inch may not result in visible runoff there are several reasons that typical lawns and gardens do not function as adequate stormwater BMPs. The soil in a typical yard is heavily compacted and the roots of common turf grasses and many garden plants are very shallow and not capable of taking up very much moisture. During heavier rains these areas rapidly become saturated beyond their capacity to retain moisture and begin to generate runoff that quickly finds its way to receiving bodies of water. Stormwater BMPs such as rain gardens or sand filters are specifically designed to allow for the filtration and infiltration of stormwater runoff, thereby helping to reduce the transport of any pollutants to area lakes and streams.

**2. If pervious paving qualifies as a stormwater BMP then why do existing gravel driveways or brick patios and sidewalks count as impervious areas?**

For pervious paving to function as an effective stormwater BMP both the surface and subsurface structure of an area must be properly designed to allow for the infiltration of stormwater runoff. Gravel driveways lack the required substructure to meet these criteria and as the soils are compacted by vehicular loading the surface becomes nearly as impervious as an asphalt or concrete drive during any significant rain. For areas paved with standard bricks the lack of adequate spacing between the individual pavers and the absence of a substructure properly designed to allow infiltration also results in a nearly impervious surface. Accordingly, only those paved areas constructed with materials and techniques specifically designed to act as stormwater BMPs qualify for the Stormwater Quality Credits Program.

**3. Can I use a rain barrel to qualify for a Stormwater Quality Credit?**

The installation of rain barrels alone does not qualify as a Stormwater BMP for the Quality Credits Program. In general the capacity of rain barrels is too small to have an appreciable effect on the quality of stormwater runoff from a site. During a one inch rain storm a one thousand square foot area will generate over 700 gallons of water and with an average capacity of approximately 50 gallons, typical rain barrels are unable to adequately treat this amount of runoff even if more than one is installed. However by providing water to irrigate gardens between rains, properly maintained rain barrels are still an environmentally sound and useful tool for water conservation.

**4. The City recently required me to disconnect my gutters from the sanitary sewer system. Do I get a credit for this on my monthly stormwater bill?**

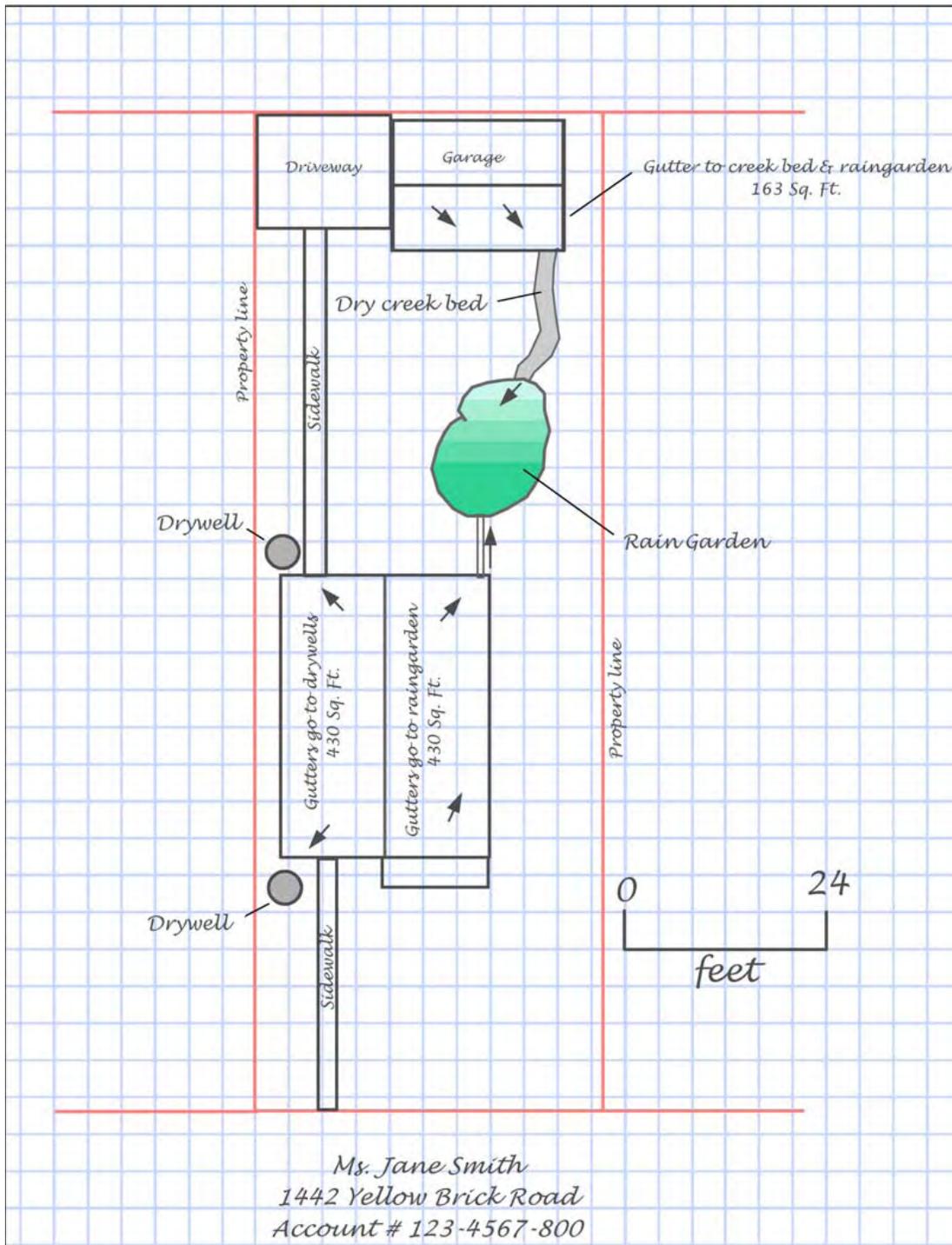
There is no relation between this requirement and Stormwater Utility fees and compliance does not qualify a property to receive Stormwater Quality Credits. When roof drains, gutters or area drains are connected to the sanitary sewer this can cause the amount of flow to exceed the capacity of the sanitary system and result in the overflow of raw sewage directly to area streams and rivers. The removal of these connections (as well as sump pump and other "clear water" connections to the sanitary sewer system) addresses both environmental and public health concerns and is mandated by the Metropolitan Council and State Government as well as by City Ordinance.

## **Instructions for The Stormwater Quality Credits Application Form**

**Introduction:** To qualify to receive a Stormwater Quality Credit for your property you will need to submit a completed credit application form that includes a scaled map showing the location of all impervious areas and all Stormwater BMPs installed on your property. The map must also identify which exact portions of the impervious areas drain to which BMPs and include arrows to show the general direction of flow. While there are several ways to create an acceptable map perhaps the easiest is to draw a map on square grid notebook paper as shown in the example on the following page.

## The Property Map

The example map shown below is one that could be drawn on an 8 ½" x 11" sheet of square grid notepaper and displays a Stormwater BMP plan for a property laid out like a fairly typical single family home in Minneapolis. In this instance a rain garden and two dry wells are used to treat the runoff coming from the roof of the house and a portion of the garage. Because the rain garden is located some distance from the garage, a dry creek bed (usually made with a heavy plastic liner covered in decorative rock) has been placed to convey water from the downspout to the rain garden. Please note that the area measurements on the map are the same as those used for all of the examples used in the instructions so that can refer back to the map example to assist you in completing the form.



# The Application Form

## Section I. – Contact & Account information

Provide the name, mailing address, telephone number and email address of the applicant . Include the property address for the credit site and Property Identification Number (PIN) <sup>1</sup>. Also include the account number from your monthly utility bill and the amount of your current stormwater charges.

<sup>1</sup> The Property Identification Number (PIN) can be found on the City's property information web site. Go to: <http://www.ci.minneapolis.mn.us/propertyinfo/> and follow the instructions to search the site. Property ID is the same as the PIN.

## Section II. - Measuring the impervious area on your property.

To determine what portion of the property is impervious area measure ( in square feet <sup>1</sup>) the footprint of your home or building, any patio or deck, sidewalks (do not include the public sidewalk along the street) your garage or parking area, driveway and any other such hard surface. Enter the figures for each category and the total in the appropriate boxes on the form.

### Example:

Square feet home/building:	910.00
Square feet patio/deck:	
Square feet sidewalk:	144.00
Square feet garage	325.00
Square feet parking/driveway	195.00
Square feet other _____:	
Total square feet of impervious area:	1574.00

<sup>1</sup>  
To calculate the total number of square feet, multiply the length of any structure or paved area on your property by its width. For example, a 20

foot by 30 foot house would have 600 square feet of impervious area (20 feet x 30 feet = 600 square feet). Measure all impervious areas and add them together to come up with your property's total impervious area.

The figure for the total impervious area on your property will be used to verify the current information on your account and to calculate the percentage of your Stormwater Quality Credit.

## Section III. - Verify The Current Stormwater Charges

The monthly charge for stormwater accounts is listed in terms of Equivalent Stormwater Units, or ESUs. An ESU is equal to 1530 square feet of impervious area, which is the average total impervious square footage on a single family lot located in Minneapolis.<sup>1</sup> To determine the initial ESU rate for your account the City utilized data from the Hennepin County and City Assessor's offices containing information on the total lot size, ground floor building square footage, garage size and other improvements on your property. These records may not reflect current conditions on the property such as the addition or removal of driveways and sidewalks in recent years. A current total is needed to verify the correct level of charges and to properly calculate and apply your credit. Use the total impervious area you recorded in Section II to verify the charges as shown below.

### Single Family Homes:

The monthly bills for single family homes are divided into three rate groupings. If your property is a single family home find the grouping your impervious area belongs in according to the table below and enter the ESU and monthly charge figures for that group in the appropriate boxes in Section III on the form:

<b>Group 1:</b> Less than 1485 Sq. Ft.	0.75 ESU	\$8.57 per Month
<b>Group 2:</b> 1486 to 1585 Sq. Ft.	1.00 ESU	\$11.42 per Month
<b>Group 3:</b> 1586 Sq. Ft. or More	1.25 ESU	\$14.27 per Month

**Example:** Using the figure of 1574.00 Sq. ft. from the example for Section II – 1574.00 is more than 1485 and less than 1585 so a single family home with 1574.00 Sq. Ft. of impervious area would fit in Group 2, resulting in a rate of 1.0 ESU and charges of \$11.42 per month.

(Section III – Continued)

For all other properties

For all properties other than single family homes, including duplexes & apartments, divide the total impervious area by 1530 according to the chart in Section III to determine the ESU rate and monthly charges for your account.

**Example:** For a small business or apartment building with 3577.50 Sq. Ft. of impervious area – 3577.50 divided by 1530.00 = 2.34 resulting in a rate of 2.34 ESU and charges of \$ 26.72 per month. <sup>1</sup>

<sup>1</sup> In 2011 the monthly charge for Stormwater Utility fees is \$11.42 per ESU, so a small business with 2295 Sq. Ft. of impervious area would be charged for 1.5 ESUs or \$17.13 per month ( 2295 divided by 1530 = 1.5 or 1.5 ESU ).

**Section IV. Stormwater BMPs & Treated Areas**

The table for section four is similar to the table in Section II for total impervious areas but there is an additional column to list the Stormwater BMPs you have installed for the credit and in this table you will list only the portion of your impervious areas that drain to your Stormwater BMPs.

**Example:** Using figures for a site with 1574.00 total impervious area as used in the example map.

Impervious Areas	Square Feet	Stormwater BMPs
Square feet home/building:	860	Rain Garden – Dry wells
Square feet patio/deck:		
Square feet sidewalk:		
Square feet garage	163	Rain Garden
Square feet parking/driveway		
Square feet other _____:		
Total square feet of impervious area:	1023	

**Section V. Calculate the Percentage of Impervious Area Treated**

To fill in the table for section V, simply divide the total area draining to Stormwater BMPs from Section IV by the figure for total impervious area from Section III to arrive at the percentage of impervious area treated by Stormwater BMPs.

**Example:** Divide the 1023.00 Sq. Ft. in treated impervious area by 1574 Sq. Ft. total impervious area. This equals 0.6499 which converted to a rounded percentage equals 65%. Enter these figures in the table for Section V as shown below.

Total areas draining to BMPs (from Step IV)	Divided by total impervious area (from Step III)	Equals % of impervious area treated for quality
1023 .00 Sq. Ft.	1574.00 Sq. Ft.	0.6499 = 65%

## Section VI. Calculate the Percentage Reduction in Stormwater Utility Fees

Since the Stormwater Quality Credit equals fifty percent of the fee for the area treated by Stormwater BMPs, simply divide the percentage of treated impervious area by 50% to calculate the percent reduction in monthly Stormwater Utility Fees.

**Example:** 65% divided by 50% equals 32.5 % .Enter these figures in the table as shown below.

Percent of impervious area treated for quality  <u>65%</u>	Divided by 50% equals percent reduction in stormwater utility fee  <u>0.325 = 32.5%</u>
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## Section VII . Ratepayer Certification

The purpose of this section is to certify that the Stormwater BMPs listed in the application have been properly installed and to grant City of Minneapolis inspectors the right to enter the property to verify the application information. Simply sign and date the form in the spaces indicated to complete the Stormwater Quality Credit Application and mail the completed application to the address shown on page one of the form. If you have any further questions or need further assistance in completing the forms please contact Stormwater Utility Administration at 612-673-2965.



# Application for Stormwater Quality Credit

## Materials required to complete application

Check when attached	Materials Required for Application to be Processed
	Completed and signed application must include: <ul style="list-style-type: none"> <li>• Current account information.</li> <li>• Calculations for your site's pervious and impervious areas.</li> </ul>
	Property map: <ul style="list-style-type: none"> <li>• Map must be to scale .</li> <li>• Map must show impervious area and indicate how stormwater drains or flows to stormwater management structure/practice.</li> </ul>

## Submit Applications to:

This application must be completed and signed before it will be processed. When completed, send this application and all necessary attachments to:

City of Minneapolis Stormwater Credits  
 Room 300, 309 Second Ave. S.  
 Minneapolis, MN 55401-2238

If you have questions, please call: Stormwater Utility Office (612) 673-2766

## I. Contact & Account Information

<b>Property Owner Name</b>	
Mailing Address	
City ST ZIP Code	
Home Phone	
Work Phone	
E-Mail Address	
<b>Property Address</b>	
Street Address	
City ST ZIP Code	
Property Identification Number (PIN)	
Utility Account Number	
Current Monthly Stormwater Charge	

## II. Measure the impervious area on your property

Determine what portion of this property is impervious area (see instruction guide for definition).

Square feet home/building:	
Square feet patio/deck:	
Square feet sidewalk:	
Square feet garage	
Square feet parking/driveway	
Square feet other _____:	
<b>Total square feet of impervious area:</b>	

## III. Verify the Current Stormwater Charges

Fill out the table below to verify the current stormwater charges for your property.

Total Impervious Area (from Step II)	Divided by 1530 (See note for single family homes)	Times \$11.42
= _____ Sq. Ft.	= _____ ESU	= \$ _____ per month

Note: Single family homes are divided into three classes for Equivalent Stormwater Units (ESU) If your property is a Single Family Home please use the following figures to enter the figure for ESU in the table above.

### Single family homes:

- Less than 1485 total impervious Sq. Ft. enter **.75** for ESU
- 1485 to 1585 total impervious Sq. Ft. enter **1.00** for ESU
- More than 1585 total impervious Sq. Ft. enter **1.25** for ESU

All other properties calculate the ESU according to the table instructions.

## IV. Stormwater Management Tools/Practices (Stormwater BMPs)

Fill out the table below to calculate the amount of impervious area that drains to a stormwater management tool/practice (see instruction guide for a list of tools and practices).

Impervious Areas	Square Feet	Stormwater BMPs
Square feet home/building:		
Square feet patio/deck:		
Square feet sidewalk:		
Square feet garage		
Square feet parking/driveway		
Square feet other _____:		
<b>Total square feet of impervious area:</b>		

### V. Section V. Calculate the Percentage of Impervious Area Treated

Calculate the percentage of the impervious area that drains to your stormwater management tools/practices. See instruction guide for more details.

Total areas draining to BMPs (from Step IV )  _____	Divided by total impervious area (from Step III)  _____	Equals % of impervious area treated for quality  _____
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### VI. Calculate Percentage Reduction in Property's Stormwater Utility Fee

Calculate the percentage of the impervious area that drains to your stormwater management tools/practices. See instruction guide for more details.

% of impervious area treated for quality  _____	Divided by two  _____	Equals % reduction/credit in property's stormwater utility fee  _____
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### VII. Ratepayer Certification

*"By signing this application, I certify that I am the owner or authorized representative of the owner and have read this application and understand the terms and conditions of the credit program I certify that this application and additional materials accurately describe stormwater management and disposal on the property identified on this application I grant the City permission to enter this property for the sole purpose of conducting a site inspection of the stormwater management and disposal facilities on this property."*

_____ Signature	_____ Print Name	_____ Date
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