



CITY OF LA CROSSE BOARD OF PUBLIC WORKS

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STORMWATER UTILITY CREDIT POLICY

Board of Public Works Approval Date: 1/30/2012

I. PURPOSE

The purpose of this Stormwater utility Credit Policy is to encourage actions by property owners within the City of La Crosse that 1) reduce stormwater flow and therefore stormwater quantity, or 2) improve stormwater quality by reducing total suspended solids (TSS) pollutant loadings. Credits to stormwater user fees are available when it can be demonstrated by the customer that a condition or activity on the property results in meeting 1), or 2), or a combination thereof.

II. CREDIT STRUCTURE

The City's stormwater management program essentially consists of three major components.

- Administrative NPDES permit compliance
- Stormwater quality improvements (up to 50% credit available)
- Stormwater quantity reductions (up to 50% credit available)

The maximum credit that shall be available is 80% of the user fee. A maximum of 50% of the credit can come from stormwater quality improvements and a maximum of 50% of the credit can come from stormwater quantity reductions.

Stormwater credits are available to residential and non-residential properties. The City provides stormwater credits for the use and implementation of stormwater best management practices (BMPs) such as stormwater ponds, bio-retention cells, rain gardens, porous pavements, or rain barrels, etc as provided in Section 23.08 Adjustments and Credits of the City Code.

III. RESIDENTIAL PROPERTIES

By definition, a residential property means any property developed exclusively for residential purposes with three or fewer residential housing units. Residential properties may receive a credit against their stormwater utility fee under one of the following conditions:

A. Rain Gardens

Rain gardens are depressions that collect rain water and/or snow water melt-off and infiltrate that water into the ground thereby reducing actual run-off to the City's stormwater system. Rain gardens are often vegetated with ornamental flowers or landscaping grasses but can also be simply grass or even rock lined depressions over soils that have high water infiltration rates. The key to a rain garden is that they trap and hold run-off that then infiltrates into the ground rather than running off into the City's storm sewer system. Multiple rain gardens are allowed from multiple roof downspouts on a single residential parcel. Credit is based on the total combined volume of all rain gardens serving that parcel.

The following requirements apply to rain gardens

1. Rain gardens shall be designed and constructed following the criteria in the publication '**RAIN GARDENS A how-to manual for homeowners**' (University of Wisconsin - Extension publication number GWQ037 or Wisconsin Department of Natural Resources Publication number PUB-WT-776 2003) UW-Extension web site at : <http://clean-water.uwex.edu/pubs/pdf/rgmanual.pdf>. The publication is also available for review during normal office hours in the Public Works Department at City Hall.

The following credits apply to rain gardens:

<u>Rain Garden Volume</u>	<u>Credit</u>
185 cubic feet or greater ...	80%
139 to 184 cubic feet	60%
92 to 138 cubic feet	40%
Less than 92 cubic feet	no credits

B. Rain Barrels

This credit is intended to facilitate the purchase and installation of rain barrels. Generally, a rain barrel is installed at the base of a roof downspout and collects run-off from roof tops for later use on the property. Water collected in such a way does not end up in the City's storm sewer system. More information on rain barrel use and installation can be found at www.rainbarrelguide.com.

The following criteria shall apply for rain barrels to be eligible for credit.

1. A barrel must have a minimum volume of fifty (50) gallons
2. The barrel must collect run-off from a rooftop that exceeds 200 square feet per barrel.
3. The barrel must be mosquito proof, complete with lid and screening of all access points to the barrel to let water in but mosquitoes and other vermin out.
4. The barrel must be capable of being drained from the bottom with complete drain down occurring at an interval of every 2 weeks or less.

The following credits apply to rain barrels:

Number of Rain Barrels	Credit
8 or more	80%
7	70%
6	60%
5	50%
4	40%
Less than 4 barrels	no credits

C. Engineered Best Management Practices (BMPs)

A credit may be granted to a residential parcel for any other Engineered device or practice that can demonstrate a reduction of the 10-year peak flow and/or the amount of Total Suspended Solids (TSS) leaving the parcel via the use of Storm Water Best Management Practices (BMPs). Credit is based on percentage reduction in flow or TSS from the existing impervious surface with no controls in place. No more than 50% credit can come from either reduction. Credits can be combined to account for a total reduction of up to 80% of the Stormwater Utility Fee.

It is the applicant's responsibility to prove the claim. Documentation must be provided to the City for evaluation of the claim and must include drawings and calculations to support the claim that are stamped and signed by a **licensed professional engineer, a licensed landscape architect, or a licensed professional hydrologist**. Additionally, the applicant is required to submit a Maintenance Plan for the device that includes both the annual and long-term inspection and maintenance required to keep the Best Management Practice functional. This maintenance plan can come from the device manufacture or be developed by the licensed professional designing the BMP; however, the plan must include a required inspection schedule, criteria of what constitutes a failure of the device based on the required inspection, and the remedy for each failure to restore the BMP back to function as originally designed and constructed.

IV. NON-RESIDENTIAL PROPERTIES
(including multi-family apartments larger than four (4) units)

By definition, the term 'non-residential property' means any developed property not defined as 'residential property', including but not limited to transient rentals (such as hotels and motels), multi-family apartment buildings of four or more dwelling units, commercial, industrial, institutional, governmental property, and parking lots.

Non-residential properties may receive a credit against their stormwater utility fee under one of the following conditions:

A. Stormwater Bioretention Cells

Bioretention cells is an infiltration device consisting of an excavated area that is backfilled with an engineered soil, covered with a layer of mulch, and planted with a diversity of woody or herbaceous vegetation. Stormwater directed to the device percolates thru the mulch and engineered soil, where it is treated by a variety of physical, chemical, and biological processes before infiltrating into the native soil. Typically, the contributing area to a biocell is a parking lot or drive surface.

The following criteria shall apply for bioretention cells to be eligible for credit.

1. The bioretention cell must be designed to Wisconsin Department of Natural Resources Conservation Practice Standard 1004: "Bioretention for Infiltration".
2. The ponding depth shall be 12 inches or greater.
3. A designated overflow shall be provided to can safely pass runoff from events up to the 100 year, without causing damage to structures or property.
4. The bioretention cell to impervious surface ratio must account for all areas contributing water (including rooftops); however, only the drive surfaces of that contributing area are eligible for credit under this provision.
5. Credit for treating run-off from other surfaces with a bio-retention cell can also be applied for separately under Section IV(E) of this policy.

The following credits apply to Stormwater Bioretention Cells:

<u>Ratio of Bio-cell Surface Area to Contributing Area</u>	<u>Credit</u>
<1:20	80%
1:20 to 1:28	70%
1:28 to 1:37	60%
1:37 to 1:50	50%
Less than 1:50	Submit under Section IV(E)

B. Permeable Pavement Credit

The permeable pavement credit is offered to properties that reduce the volume (quantity) of stormwater runoff to the City's system after constructing and installing porous pavements on their property. Porous pavement allows water to infiltrate versus running off. Various porous materials can be used so long as the following criteria are met.

1. Interconnected void space of pavement shall exceeds 15%

2. Initial porosity rate shall exceed 30 inches per hour
3. Base material consists of washed rock 1” to 3” in diameter
4. Native soil must be of NRCS soil classification “sandy loam, loam, silt loam, or clay”.
(Native soil of NRCS soil classification “coarse sand or gravel” require 3 feet of engineered soil below the base coarse to protect ground water before permeable pavement is used.)
5. Documentation that permeable pavement is vacuumed or washed once every 6 months must be maintained for the life of the pavement.

The following credits apply to Permeable Pavement:

Thickness of Base Coarse	Credit
11.5 inches or greater	80%
8.6 to 11.4 inches	60%
5.8 to 8.5 inches	40%
3 to 5.7 inches	20%
Less than 3 inches	no credit

C. Disconnected Impervious Surface

Directing run-off from impervious surfaces such as rooftops, driveways, and parking lot into lawns and landscaping rather than collecting and transporting that water directly to the City Storm Sewers allows a portion of this run-off to be filtered and infiltrate; thus reducing both pollution and peak flows. Adequate green space in relation to the contributing impervious area is necessary to earn this credit.

Credit is available for disconnecting impervious surfaces from the storm sewers given the following criteria.

1. The receiving green space must be the same size or larger than the contributing impervious area.
2. The slope of the receiving area cannot exceed 3 percent.
3. No more than 1000 square feet of contributing rooftop is allowed per downspout.
4. Runoff cannot travel more than 75 feet on impervious surface before reaching green space.
5. Downspout discharge must be at least 10 feet away from any impervious surface.
6. Site and contributing area must be graded to use the entire receiving area for infiltration (ie- avoid “reconnection” of run-off to an impervious surface)
7. Additional credit would be available for areas with storage such as a rain gardens, and would need to be applied for under Section IV(D) of this policy.

The following credits apply to disconnected impervious surfaces:

Disconnected drive surfaces (ie- parking lots and driveways)	70% Credit
Disconnected rooftops or non-drive hard surfaces	45% Credit

D. ERU Adjustment

The Ordinance allows for a non-residential parcel to request that their ERU rate be reduced if “...some or all of the owners property does not discharge directly or indirectly to or through any form of conveyance system owned or operated by the Stormwater Utility at any and all run-off events.” This adjustment applies to riverside properties that sheet flow to Waters of the State or properties adjacent to a river that have private storm sewer pipes discharging directly to the Waters

of the State. Typically, these properties will be operating under their own NPDES permit from the State.

E. Engineered Best Management Practices (BMPs)

A credit may be granted to a non-residential parcel for any other Engineered device or practice that can demonstrate a reduction of the 10-year peak flow and/or the amount of Total Suspended Solids (TSS) leaving the parcel via the use of Storm Water Best Management Practices (BMPs). Credit is based on percentage reduction in flow or TSS from the existing impervious surface with no controls in place. No more than 50% credit can come from either reduction. Credits can be combined to account for a total reduction of up to 80% of the Stormwater Utility Fee.

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V. STORMWATER CREDIT APPLICATION PROCESS

Property owners applying for a stormwater credit shall follow the credit application process applicable to their property type using the forms created by the City. Application forms are available on-line at www.cityoflacrosse.org and from the City Clerk.

Application should be addressed to:

**Stormwater Utility Credit Application
City Hall
400 La Crosse Street
La Crosse, WI 54601**