

SECTION I. OVERVIEW AND GENERAL INSTRUCTIONS

INTRODUCTION

A stormwater credit is a reduction in a portion of your stormwater service fee. The City has adopted a rule that sets forth who is eligible for the credit ("Credit Rule"). The purpose of this guidance document is to set forth the procedure for applying for the credit. Pursuant to the Credit Rule, there are three credits available:

- Reducing the peak flow of runoff from your property through the use of stormwater detention or retention, called the **peak flow credit**;
- Performing your own maintenance on the part of the public, open channel stormwater system that goes through your property, called the **maintenance credit**; and
- Installing green infrastructure to meet the requirements of the manual, called the **GI Credit**.

DEFINITIONS

"Credit" means a reduction in a customer's stormwater service fee given for certain qualifying activities which reduce either the impact of increased stormwater runoff, reduces the City's costs of providing stormwater management or creates Green Infrastructure.

"Stormwater quantity control facility" means a facility, which provides temporary storage of stormwater runoff in ponds, parking lots, depressed areas, buried underground vaults or tanks, etc., for future release, and is used to attenuate flow for infrequent storm events. Stormwater facilities within this category do not meet the definition of green infrastructure.

"Green Infrastructure" or "GI" means stormwater quality or quantity BMPs that provide a function in addition to stormwater management such as water reuse, providing greenspace or habitat in the City, and/or reducing greenhouse gas emission reduction. Examples of stormwater green infrastructure include bioretention facilities, permeable pavement, green roofs, and rainwater harvesting.

"Routing" means an engineering technique described as computation of the movement and attenuation of an inflow hydrograph as it passes through the stormwater system, resulting in a discharge hydrograph at the downstream end of the element, such as a pipe, channel, or detention basin, and accounts mathematically for the effects of storage on flow through the element. "Level pool routing" assumes that a retention/detention facility maintains "even or level" surface water elevation.

"Stormwater" means stormwater runoff, snow melt runoff, and surface runoff and drainage.

"Critical Storm Event" means a storm event whose return interval is determined by comparing the increase in runoff volume during a 1-year, 24-hour storm event as a result of added impervious surfaces. The runoff generated by the critical storm event is reduced to a rate that does not exceed the runoff rate generated by 1-year, 24-hour storm event under pre-developed conditions. (See the City's current Stormwater Drainage Manual for more information.)

"1-year, 24-hour Storm Event" means a storm event having a 24-hour duration that has a one hundred (100) percent chance of occurring in any given year.

"100-year, 24-hour Storm Event" means a storm event having a 24-hour duration that has a one (1) percent chance of occurring in any given year.

Refer to the current City of Columbus Stormwater Drainage Manual for the specified criteria on detention/retention basin design.

GENERAL POLICIES

There are certain conditions which must be met and applications which must be made that will determine if you actually qualify for a credit and for what amount of credit.

- In no case, for on-site activities, will the total credit amount be more than the stormwater service fee paid.
- A right-of-entry or easement, as applicable, must be given to the City in order for a credit to be approved.
- Credit is given to all eligible non-single family residential properties only.
- Credit applications must be in the proper form and complete.
- Appeals of all stormwater credit decisions will be heard by the Administrator, Division of Sewerage and Drainage in accordance with Columbus City Code 1149.09.
- Credit applications for new construction may be submitted once the facility is in place or stormwater billing begins, whichever is later. Existing developments may also apply for a credit.
- As set forth in the Credit Rule, all credits granted will automatically expire every two years, at the end of odd-numbered years. Property owners must renew to continue

receiving credits. The City will send a renewal notice to the property owner prior to the expiration.

See specific policies under each type of credit for details and special circumstances. Section II of this document gives instructions for the peak flow credit, Section III gives instructions for the maintenance credit and Section IV gives instructions for GI credit. .

BASIC PROCEDURES

In order to receive certain levels of credits, some engineering calculations and applications are required to be performed by a registered professional engineer. Some applications can be filled out by any property owner. The basic procedure is to pick up an application packet; perform the necessary analysis; fill out the application and submit the required information. The credit will be instituted by the City after approval of an application.

- A **peak flow** credit is available for eligible properties where total site discharge reductions exceed the peak flow reduction requirements specified in the City's current Stormwater Drainage Manual. To qualify for a peak flow credit, applicants are required to perform an engineering analysis, at the owner's expense, to demonstrate that total site discharges from the property exceed the City's peak flow criteria.
- A **maintenance** credit is available for property owners who perform regular maintenance on the public open drainage system located on their property. This results in a cost savings to the City. To qualify for the credit, property owners must submit a site plan, and maintenance plan,
- A **GI** Credit is available for property owners who install and maintain GI as part of the stormwater management system. GI must be properly engineered, installed and maintained.

SECTION II - PEAK FLOW CREDIT

INTRODUCTION

The purpose of this section is to acquaint the applicant with the procedures of applying for and receiving a peak flow reduction credit on the stormwater service fees. This section contains step by step procedures to follow when applying for a peak flow reduction credit.

POLICIES AND GENERAL INFORMATION

All properties, other than single family residential, are eligible to receive a peak flow credit based on the policies listed below.

Policies

1. All property owners that are receiving a credit on the day this rule is effective may continue to receive the credit until December 31, 2013, at which time it expires. Property owners may reapply to continue to receive the credit, but credit will only be granted if the property owner meets the requirements of this rule.
2. The maximum percent reduction (credit) available for reducing discharge from the property to zero is 80 percent using non-green infrastructure BMPs. Peak flow credits will be given to all eligible properties which have constructed stormwater quantity control facilities in accordance with City policy provided: (1) Total site discharge control exceeds the City's flow reduction requirements stipulated in the City's current Stormwater Drainage Manual; (2) the stormwater quantity control facility(ies) is constructed, and maintained in accordance with the standards provided in the City's current Stormwater Drainage Manual; (3) for which a complete credit application form (Form 1) has been submitted; and (4) there has been provided to the City a signed right of entry (Form 2) by the owner thereof.
3. The peak flow credit is based on the comparison of the actual discharge from the site during a 100-year, 24-hour storm event and the maximum allowable release rate from the site during a 100-year, 24-hour storm event as prescribed in the City's current Stormwater Drainage Manual. Applicants seeking fee reductions must also demonstrate that the maximum release rate from the site during the critical storm event does not exceed that of the pre-developed, 1-year, 24-hour storm event as required by the City's current Stormwater Drainage Manual. The following equation will be used to determine the percent reduction in stormwater fees based on level pool routing of the 100-year, 24-hour storm event through the site:

$$P = [(0.8 * (1 - Q_A / Q_T))] * 100 \quad (\text{Equation 1})$$

Where: **P** is the percent reduction in stormwater fee to be applied to the property.
Q_A is the actual peak flow leaving the site, including discharges from uncontrolled areas within the site, determined by calculating the peak flow during the 100-year, 24-hour storm event.
Q_T is the maximum allowable release rate leaving the site during the 100-year 24-hour event as specified in the City's Stormwater Drainage Manual.

4. The peak flow credit is available upon successful completion of an application process, and submittal of all necessary engineering calculations, documentation, and proof of required information, signed and stamped by a professional engineer registered in the state of Ohio.

5. If all requirements and conditions of this section are met, the credit will be applied to the property and become effective under the following conditions:
- The credit shall be effective on either the date of submittal of a successful application or the date that stormwater billing for that property begins (provided all requirements and conditions of the rule are met), whichever is later.

PROCEDURES

To apply for the peak flow credit:

- STEP 1: The property owner or representative obtains a credit application packet from the City. The application may be downloaded from the Department of Public Utilities' web page (www.columbus.gov).
- STEP 2: Stormwater quantity controls are functioning as designed prior to the City inspection.
- STEP 3: A professional engineer measures the site stormwater quantity controls and performs a level pool routing of the critical storm event. If the actual discharge from the site during the critical storm event is determined to be less than, or equal to, the 1-year, 24-hour runoff rate under pre-developed conditions, the applicant may proceed to STEP 4. If the actual discharge from the site during the critical storm event is determined to be greater than the 1-year, 24-hour runoff rate under pre-developed conditions, the site is not eligible for a credit reduction.
- STEP 4: A professional engineer measures the site stormwater quantity controls and calculates the total site discharge during the 100-year, 24-hour storm event. This yields the value of Q_A .
- STEP 5: A professional engineer calculates the maximum allowable release rate for the site during a 100-year, 24-hour storm event for the site as prescribed by the City's current Stormwater Drainage Manual. This yields the value of Q_T .
- STEP 6: Using the results from STEP 4 and STEP 5 the ratio of (Q_A/Q_T) is calculated and entered into Equation 1 above to determine the percent of stormwater fee reduction for which the site is eligible.
- STEP 7: The calculations, signed application (Form 1) including certification and signed right of entry (Form 2), are submitted to the City.

- STEP 8: The City will review the calculations and may inspect the facility. If the facility fails an inspection the City provides a letter explaining the failure and steps necessary to qualify for a credit and re-inspection.
- STEP 9: The City notifies the owner of the results and credit amount, the effective date and updates stormwater billing system.
- STEP 10: Owner submits such annual maintenance reports as are required by the City.

Every two years, in response to City credit renewal notification letter, the applicant shall renew the peak flow credit.

SECTION III – MAINTENANCE CREDIT

Introduction

The purpose of this section is to acquaint the applicant with the procedures of applying for and receiving a maintenance-cost reduction credit on the stormwater utility fees. This section contains step by step procedures to follow when applying for a credit.

Policies and General Information

All properties, other than single family residential, for which the stormwater fee is calculated based upon impervious area are eligible to receive a credit based on the maintenance criteria listed below.

Policies

1. All properties, other than single-family residential properties, who maintain public stormwater open channels, are eligible to receive a direct cost reduction (credit) in the property's stormwater service fee.
2. To receive a credit, the property owner must (1) provide to the City a site plan at appropriate scale indicating the open channel(s) proposed to be maintained; (2) provide evidence that the channel meets the definitions of public stormwater open channel; (3) provide evidence indicating the size of the tributary area to the open channel; (4) provide evidence of an easement dedicated to the City; (5) provide a statement signed by the property owner releasing the City from any assumed maintenance activities on the open channel; and (6) maintain the open channel to a minimal City standard.
3. Credit is given on the basis of two channel types according to the following table:

Channel Type	Description	Credit (\$/lin. ft./yr.)
Minor Ditch	drains up to 10 acres	\$0.75
Feeder Channel and stream	above 10 acres drainage area	\$1.50

4. If all requirements and conditions of this section are met, the credit will be applied to the property and become effective the date a completed maintenance credit application was submitted.
5. The amount of credit cannot exceed the stormwater service fee.
6. Basic minimum maintenance requirements for public stormwater open channels are:
 - The open channel shall be kept free from any debris, vegetation, and material which does or could inhibit the normal flow of water;
 - Any erosion occurring on the open channel shall be repaired so as to prevent further erosion from occurring; and
 - Sediment deposited in the stream bed which inhibits the normal flow of water shall be removed.

Procedures

To apply for a maintenance credit:

- STEP 1 The owner verifies that the channel to be submitted for credit is currently in a proper state of maintenance. The owner obtains the appropriate application form - Form 4 (Application).
- STEP 2 The owner determines the channel length(s), location(s), and tributary area(s) and develops a site plan.
- STEP 3 The owner determines a basic inspection and maintenance plan to meet basic maintenance criteria and any specific activities necessary to bring the channel to an acceptable level initially.
- STEP 4 The owner coordinates with the City to dedicate a permanent easement to the City.
- STEP 5 The owner submits the application.
- STEP 6 The City may inspect the channel and verify the current level of maintenance. If the property fails an inspection the City provides a letter explaining the failure and steps necessary to qualify for a credit and re-inspection.

STEP 7 The City notifies the owner of the results and credit amount, the effective date and updates stormwater billing system.

STEP 8: Owner submits such annual maintenance reports as are required by the City.

Every two years, in response to City credit renewal notification letter and application, the applicant shall renew the maintenance credit.

SECTION IV – GREEN INFRASTRUCTURE CREDIT

Introduction

The purpose of this section is to acquaint the applicant with the procedures of applying for and receiving a GI credit. This section contains step by step procedures to follow when applying for a credit.

Policies and General Information

All properties, other than single family residential, for which the stormwater fee is calculated based upon impervious area are eligible to receive a credit based on the criteria listed below.

Policies

1. GI Stormwater BMPs provide additional benefits to the City and the Community. Those benefits may include water reuse, providing greenspace or habitat in the City, and/or greenhouse gas emission reduction. The City wants to encourage private developers to include more GI in developments. Thus, the City will provide a credit for GI even if the performance requirements of the Manual are not exceeded.
2. When GI is utilized to provide all the necessary water quality control for the impervious surface, the GI credit will equal 25% of the stormwater fee for the impervious surface controlled by the GI. When GI is utilized to provide all the necessary water quality and quantity control for impervious surface, the GI credit will equal 100% of the stormwater fee for the impervious surface controlled by the GI.
3. The following BMPs qualify as GI: bioretention facilities, permeable pavement, green roofs, and rainwater harvesting. A traditional detention pond does not qualify as GI.

Procedures

- STEP 1: The property owner or representative obtains a credit application packet from the City.
- STEP 2: The green infrastructure is functioning as designed prior to the City inspection.
- STEP 3: The signed application (Form 4) including certification, signed right of entry (Form 2), to request inspection for GI credit are submitted to the City.
- STEP 4: The City will evaluate the application and may inspect the infrastructure. If the infrastructure fails an inspection the City provides a letter explaining the failure and steps necessary to qualify for a credit and re-inspection.
- STEP 5: The City notifies the owner of the results and credit amount, the effective date and updates stormwater billing system.
- STEP 6: Owner submits such annual maintenance reports as are required by the City.

Every two years, in response to City credit renewal notification letter and application, the applicant shall renew the GI credit.

Forms that follow:

- Form 1 - Peak Flow Credit Application Form
- Form 1A- Peak Flow Credit Renewal Form
- Form 2 - Right-of-Entry Form
- Form 3 - Maintenance Credit Application Form
- Form 4- Green Infrastructure Application Form

CITY OF COLUMBUS
Form 1 - Peak Flow Credit Application Form

Instructions:

1. Fill out this form completely. A separate application must be made for each separate property location. One application can be made for multiple stormwater facilities to be assessed on the same property. Attach a separate sheet giving facility location and description for each additional facility on the same property for which you are requesting credit.
2. Fill out and attach a Right-of-entry Form (Form 2).
3. Mail the completed form, payment and Right-of-entry to: Division of Sewerage and Drainage, ATTN: Stormwater Credits, 1250 Fairwood Avenue, Columbus, Ohio 43206

Water/Sewer/Stormwater Account Number:

Parcel Identification Number (if known):

Site Location:

Street Address

City

State

Zip

Authorized Contact:

Name & Title (last, first and title)

**Contact Mailing
Address:**

Street Address

City

State

Zip

Phone/Fax

Owners Representative (Engineer):

Name: _____

Address: _____

City

State

Zip

Phone/Fax

Ohio Registration Number (PE):

STORMWATER FACILITY CALCULATIONS AND INFORMATION (Form 1 Cont.)

I hereby request the City of Columbus review this application for a Peak Flow Credit. I further authorize the City of Columbus to inspect the above identified stormwater facility(ies) for the purpose of assessment for a stormwater service fee credit. I certify that I have authority to make such a request and grant such authority for this property. The attached information is true and correct to the best of my knowledge and belief. (This form must be signed by the financially responsible person if an individual, or if not an individual by an officer, director, partner, or registered agent with authority to execute instruments for the financially responsible person). I agree to provide corrected information should there be any change in the information provided herein.

Type or print name Title or Authority

Signature Date

1. TOTAL SITE CHARACTERISTICS (Site plan attached as Attachment _____)

Plan # _____
Total Site Area: _____ acres
Total Site Impervious Area: _____ acres (sum of the three below)
Paved Area: _____ ft² Roof Area: _____ ft²
Other impervious Area: _____ ft² (**explain**)

2. TOTAL SITE DISCHARGES (Calculations as Attachment _____)

Note: Total discharges are to include any controlled and uncontrolled discharges generated by the overall site development.

Pre-development 1-year, 24-hour storm site discharge ($Q_{T \text{ critical}}$) _____ cfs.
Critical Storm site discharge ($Q_{A \text{ critical}}$) _____ cfs

Note: $Q_{A \text{ critical}}$ must be less than $Q_{T \text{ critical}}$ to eligible for credit

Pre-development 10-year, 24-hour site discharge (Q_T) = _____ cfs
Post-development 100-year, 24-hour site discharge (Q_A) = _____ cfs

Note: Q_A must be less than Q_T to eligible for credit. The City will calculate final credit amount based on values for Q_A and Q_T .

3. STORMWATER FACILITY GENERAL INFORMATION

(for items 3-5 attach separate sheet for each facility).

Facility Location on Site:
Description of Facility
(i.e., pond, parking lot, etc):

4. DETENTION/RETENTION WATERSHED CHARACTERISTICS

(Area delineated as shown in Attachment(s)_____)

All values requested pertain to the drainage area into the Facility being analyzed only, not the whole site.

Runoff Coefficient: _____ (C Factor or SCS Curve Number)

Time of Concentration: _____ min (5 minutes minimum).

Drainage Area to Facility: _____ acres

Drainage Area Impervious Acreage: _____ acres (sum of the three below)

Paved Area: _____ ft² Roof Area: _____ ft²

Other Impervious Area: _____ ft² (explain)

STORMWATER FACILITY CALCULATIONS AND INFORMATION (Form 1 Cont.)

5. QUANTITY CONTROL FACILITY DATA (All calculations are at Attachment(s)) Facility

Storage Volume to Overflow _____ ft³

Critical Storm Event Data:

Critical Storm return interval (i.e. 5 year, 10 year, etc.) _____

Critical Storm Inflow Hydrograph Peak Flow _____ cfs

Critical Storm Routed Hydrograph Peak Flow _____ cfs

Pre-development 1-year, 24-hour storm discharge _____ cfs.

Required Storage Volume for Critical Storm Event _____ ft³

100-year Storm Event Data:

100-year, 24-hour Storm Inflow Hydrograph Peak Flow _____ cfs

100-year, 24-hour Storm Routed Hydrograph Peak Flow _____ cfs

Pre-development 10-year, 24-hour discharge _____ cfs

Required Storage Volume for 100-year, 24-hour Storm Event _____ ft³

Attach stage-discharge-storage information in tabular form, storage volume calculations, outlet description, overflow description, runoff calculations, and all other pertinent information necessary to perform a detailed review.

ENGINEER'S CERTIFICATION:

I hereby certify that stormwater quantity control facility(ies) has (have) been constructed in substantial conformance with pertinent design requirements and that the facility(ies) is(are) in an acceptable state of maintenance and repair. I further certify that these calculations, technical details and information provided reflect accurately the condition of the stormwater quantity control facility at the time of my inspection.

Signature _____

P.E. Registration Number _____

PE Seal here

City of Columbus

Form 1A – Stormwater Service Fee Credit Application for Recertification

Instructions:

1. Complete one application for recertification for each property. A property may contain multiple stormwater facilities, and one application may be submitted for all. Other properties for which recertification are desired must be included on separate applications.
2. Complete one Form 2 - Right-of-Entry for each property.
3. Mail the completed application for recertification and the corresponding right-of-entry to:
Division of Sewerage and Drainage; ATTN: Stormwater Credits;
1250 Fairwood Avenue; Columbus, Ohio; 43206

Property Information:

Water/Sewer/Stormwater Account Number: _____

Parcel Identification (PID) Number: _____

Street Address

City State Zip

Authorized Contact Information:

Name (first & last) Title

Street Address

City State Zip Phone / Fax

I hereby certify that the stormwater controls and/or public open channels for which credit was originally approved are in a proper state of maintenance and repair and have not been modified since the original application for a Stormwater Service Fee Credit was submitted and approved. I request that the City of Columbus review this application for recertification and continue to provide:

- Peak Flow Credit reduction for this property;
- Green Infrastructure Credit reduction for this property; and/or
- Public Stormwater Open Channel Maintenance Credit reduction for this property.

I authorize the City of Columbus to inspect the stormwater facilities and/or public open channels on the subject property for the purpose of evaluating continued eligibility for the Stormwater Service Fee Credit. I certify that I have authority to make this request and hereby grant such authority for the referenced property. I certify that the information included on this form and any attachments is true and accurate to the best of my knowledge and belief. I agree to immediately provide corrected information to the City of Columbus should I become aware of any change to the information provided herein.

This form must be signed by the financially responsible person if an individual, or if not an individual by an officer, director, partner, or registered agent with authority to execute instruments on behalf of the financially responsible person.

Type or Print Name

Title or Authority

Signature

Date

City of Columbus
Form 2 – Right-of-Entry

_____, hereinafter termed "Owner," hereby consents to the entry of the City of Columbus, hereinafter termed "City," and representatives as set forth herein upon the real estate hereinafter described:

Parcel Identification (PID) Number: _____

Street Address

City State Zip

WITNESSETH:

1. Owner hereby grants to City, its employees, agents, consulting engineers, contractors, and other representatives the right to enter upon the above described real estate on and after the ____ day of _____, 20____, for the purpose of the inspection and survey of stormwater control facilities, facility layout, and impervious areas.
2. The City shall, as soon as practicable after completion of the work as described above, cause all affected property of the Owner to be restored to its original condition as nearly as reasonably possible.
3. Owner hereby covenants with City that as the true and lawful owner of the above described real estate, having seized of the same in fee simple and with the right and full power to grant this right-of-entry.
4. Owner will not charge City rent or other compensation during the period of time City occupies above described real estate for purposes aforesaid under the provisions of this right-of-entry.
5. This right-of-entry shall cease to be effective upon completion of the above described work.

IN WITNESS WHEREOF, the Owner has caused this instrument to be subscribed on this ____ day of _____, 20_____.

Witness (print)

Owner (print)

Signature

Signature

STORMWATER FACILITY CALCULATIONS AND INFORMATION (Form 4 Cont.)

I hereby request the City of Columbus review this application for a Peak Flow Credit. I further authorize the City of Columbus to inspect the above identified stormwater facility(ies) for the purpose of assessment for a stormwater service fee credit. I certify that I have authority to make such a request and grant such authority for this property. The attached information is true and correct to the best of my knowledge and belief. (This form must be signed by the financially responsible person if an individual, or if not an individual by an officer, director, partner, or registered agent with authority to execute instruments for the financially responsible person). I agree to provide corrected information should there be any change in the information provided herein.

Type or print name	Title or Authority
Signature	Date

1. TOTAL SITE CHARACTERISTICS (Site plan attached as Attachment _____)

Plan # _____

Total Site Area: _____ acres

Total Site Impervious Area: _____ acres (sum of the three below)

Paved Area: _____ ft² Roof Area: _____ ft²

Other impervious Area: _____ ft² (**explain**)

2. TOTAL SITE DISCHARGES (Calculations as Attachment _____)

Pre-development 10-year, 24-hour site discharge (QA) = _____ cfs

Post-development 100-year, 24-hour site discharge (QT) = _____ cfs

4. GREEN INFRASTRUCTURE FACILITY GENERAL INFORMATION (for items 3-5 attach separate sheet for each facility).

Facility ID:

Facility Location on Site:

Type of Green Infrastructure:

5. WATER QUALITY –GREEN INFRASTRUCTURE

Water quality volume required _____

Water quality volume provided by GI _____

6. QUANTITY CONTROL-GREEN INFRASTRUCTURE

Quantity control required _____

Quantity control provided by GI _____

ENGINEER'S CERTIFICATION:

I hereby certify that the retention/detention facility(ies) has (have) been constructed in substantial conformance with pertinent design requirements and that the retention/detention facility(ies) is(are) in an acceptable state of maintenance and repair. I further certify that these calculations, technical details and information provided reflect accurately the condition of the retention/detention facility at the time of my inspection.

Signature _____

P.E. Registration Number _____

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