

CITY OF COLUMBIA
STORMWATER MANAGEMENT UTILITY



CREDIT MANUAL
FOR
STORMWATER FEES

CITY OF COLUMBIA

SOUTH CAROLINA

STORMWATER MANAGEMENT UTILITY

CREDIT MANUAL

FOR

STORMWATER FEES

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OVERVIEW AND GENERAL INSTRUCTIONS

INTRODUCTION

A stormwater credit is a reduction in your stormwater service fee if you do certain things. There are basically two circumstances by which a developed property will be considered eligible for a stormwater utility service charge credit as follows:

1) **Detention/ Retention Credit**

The property has built and maintains an onsite stormwater detention or retention pond that reduces the impact of stormwater runoff from the property. A credit of up to 60% of the total stormwater fee may be available for a well designed and maintained onsite detention/retention facility. Under certain circumstances, a well designed and maintained regional detention/retention facility may be eligible for a credit up to 100% of the total stormwater fee.

2) **Education Credit**

Stormwater credits are available to educational institutions that educate and inform their students about the importance of our surface and groundwater resources. A credit of 20% of the total stormwater fee may be available to that specific school that meets the educational guidelines contained in this manual.

If a property is eligible for more than one type of credit, those credits shall be cumulative. However, the maximum credit available to any property shall be 100% of the total stormwater fee.

DEFINITIONS

City means City of Columbia, South Carolina.

Credit means a conditional reduction in the amount of a stormwater service charge to an individual property based on provision and continuing presence of an effectively maintained and operational on-site stormwater system or facility, continuing provision of a service or activity that reduces the City of Columbia's cost of providing stormwater services and stormwater systems and facilities.

Detention Facility means a facility, by means of a single control point, which provides temporary storage of stormwater runoff in ponds, parking lots, depressed areas, rooftops, buried underground vaults or tanks, etc., for future release, and is used to delay and attenuate peak flow.

Retention Facility means a facility which provides storage of stormwater runoff and is designed to eliminate subsequent surface discharges.

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 an "even" or "level" surface water elevation.

Stormwater means stormwater runoff, snowmelt runoff, and surface runoff and drainage.

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.

- Credit is given to eligible non-single family residential properties only.
- A Maintenance Agreement must be executed by the Owner of detention/retention facilities in order for this credit to be approved.
- Credit applications for existing detention/retention facilities may be submitted at any time. These credits shall be applied to the specific properties in the next month after the credit application has been received and approved by the City Engineer (or his or her designee).
- Credit applications for new detention/retention facilities may be submitted once the facility is in place. Again, these credits shall be applied to the specific properties in the next month after the credit application has been received and approved by the City Engineer (or his or her designee).
- Credit applications for educational programs may be submitted at any time. These credits shall be applied to the specific properties in the next month after the credit application has been received and approved by the City Engineer (or his or her designee).

BASIC PROCEDURES

Some engineering calculations are required to receive the detention/retention credit. Therefore, certain parts of this application are required to be performed by a registered professional engineer licensed in the State of South Carolina. The basic procedure is to pick up an application packet; perform the necessary analysis; fill out the application and submit required information. The credit will be instituted by the City after approval of an application.

DETENTION/RETENTION CREDITS

AMOUNT OF CREDIT

Stormwater credits to the computed Stormwater Service Fees can be obtained for certain stormwater detention/retention facilities owned, operated and maintained by the applicant. Sufficient information must be supplied to the City Engineer (or his or her designee) to verify that the controls meet the following criteria:

- ◆ For the 10-year storm, a 20 percent credit to the computed fee will be given.
- ◆ For the 25-year storm, a 40 percent credit to the computed fee will be given.
- ◆ For the 100-year storm, a 60 percent credit to the computed fee will be given.

The peak runoff rate under developed conditions must be less than or equal to the peak runoff rate for the same property under undeveloped conditions for the entire property.

The above credits may be cumulative if multiple storms are controlled. Also, the above credits may be doubled if the detention/retention facility is a regional facility. The maximum credit shall not exceed 100 percent.

SPECIFIC POLICIES

1. All properties, other than single-family residential properties, which have constructed stormwater detention/retention facilities and maintain them in accordance to City defined standards may be eligible for a percentage reduction, or credit, in that property's stormwater service fee. In order to be eligible for this credit, the entire property must drain to and be served by the detention/retention basin. Properties where only a portion of the property is served by the detention/retention basin shall not be eligible.
2. To receive any credit towards their stormwater service fee, the property owner must insure that: (1) such facility meets design, construction and maintenance standards in effect at the time of construction; (2) a complete Credit Application Form (Form 1) sealed by a professional engineer licensed to practice in South Carolina has been submitted; (3) there has been provided to the City a signed Maintenance Agreement (Form 2) by the owner thereof. See the attached forms.
3. If all requirements and conditions of this section are met, the credit will be available beginning with the first billing period following successful completion of the application process and successful completion of a City inspection. The credit shall remain in force as long as the facility is maintained in satisfactory condition. The required maintenance of detention/retention facilities is described below.

4. The Rational Method may be used for detention/retention basins draining five acres or less. The SCS Method may be used in all cases. The same method must be used for both pre- and post-development flow conditions.
5. Regional facilities or those detention/retention facilities that effectively handle stormwater runoff from offsite might be eligible for credits. However, due to individual complexities, credits for regional facilities will be granted on a case-by-case basis. In general, qualifying regional facilities shall be eligible for credits that are double the amount available to onsite facilities. For example, all those properties that drain entirely (the entire property must drain to the facility) to a regional facility that restricts the post-development runoff rate for the entire contributing watershed to the pre-development runoff rate for a 10-year storm would be eligible for a 40 percent credit to their respective computed fees. The maximum credit for properties served by regional facilities shall not exceed 100 percent.

INSTRUCTIONS FOR CREDIT APPLICATIONS

1. The applicant must prepare hydrologic calculations demonstrating the stormwater facility effectiveness based on a routed hydrologic study through the site using the Rational Method, Soil Conservation Service (SCS) methodology, or an alternate computer modeling program approved by the City Engineer (or his or her designee).
2. Any credit granted will be effective for the next regular billing cycle after approval of the application by the City Engineer (or his or her designee).
3. Completed applications and supporting documentation must be submitted to the City of Columbia Department of Engineering at Post Office Box 147, Columbia, South Carolina, 29217.
4. All submittals must be made on 8 ½" x 11" format. Maps, drawings, and diagrams must be folded to 8 ½" x 11" and suitable for filing.
5. All engineering calculations and drawings shall be prepared, sealed and stamped by a professional engineer currently registered in the state of South Carolina.

If you need assistance in completing the application or in providing the requested material, please contact the City Engineer's office at (803) 733-8232.

MAINTENANCE STANDARDS

In order for stormwater retention/detention facilities to operate as they were intended, maintenance must be routinely performed. Improperly maintained stormwater detention/retention facilities do not reduce stormwater impacts effectively. The following items are the basic minimum maintenance requirements for all stormwater facilities:

1. Sediment shall be removed when 20% of storage volume of the facility is filled.
2. Sediment traps, if existing, shall be cleaned out when filled.
3. No woody vegetation shall be allowed to grow on the embankment without special design provisions.
4. Other vegetation shall be cut when it exceeds 18 inches in height unless part of managed landscaping.
5. Debris shall be removed from blocking inlet and outlet structures and from areas of potential clogging. This is especially important after major storms. Extended detention control devices should be checked often for debris accumulation and/or clogging.
6. The control structures shall be kept structurally sound, free from erosion, and functioning as designed.
7. Periodic removal of dead vegetation shall be required.
8. No standing water is allowed within extended detention basins.
9. The site should be inspected and debris removed after every major storm.

In order for any property owner to receive any credit, the applicant must submit a Maintenance Agreement for the site's stormwater detention/retention facility along with the rest of the credit application. Special maintenance considerations that might be considered by the City must be included in the credit application.

CITY OF COLUMBIA

Form 1 – Detention/Retention Credit Application Form

Instructions:

Fill out this form completely. A separate application must be made for each separate property location. Please insure all detention/retention facilities are in a proper state of repair and maintenance.

Fill out and attach a Maintenance Agreement (Form 2).

Mail completed Form and Maintenance Agreement to: City of Columbia, Department of Engineering, PO Box 147, Columbia, SC 29217.

Project Information (please type or print in ink)

Name of Project _____

Property Address _____

Water/Sewer/Stormwater Account Number _____

Property Tax Map Number (if known) _____

Applicant Information

Name _____

Address _____

Contact Person _____

Telephone Number _____

I hereby request the City of Columbia review this application for a stormwater utility service charge credit. I further authorize the City of Columbia to inspect the above identified stormwater facility(ies) for the purpose of consideration for a stormwater utility service charge 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 property owner or person financially responsible if an individual, or if not an individual by an officer, director, partner, or registered agent with authority to execute instruments for the person financially responsible). I agree to provide corrected information should there be any change in the information provided herein.

Type or print name
Owner/Person Financially Responsible

Title or Authority

Signature
Owner/Person Financially Responsible

Date

Designer Information

Company Name _____
Address _____
Telephone Number _____
Design Engineer _____
South Carolina Registration Number (PE) _____

Site Characteristics

Total Site Area (acres) _____
Impervious Areas: Buildings (square feet) _____
Parking or Driving Surfaces (square feet) _____
Other Impervious Surfaces (square feet) _____
Total Impervious Areas (square feet) _____

Hydrological Characteristics

Provide documentation for Runoff Coefficient, Curve Number, Time of Concentration, Lag Time, Rainfall Intensity, etc. for both pre and post-development conditions.

Detention/Retention Facility Data

Is this a regional or site specific detention/retention facility? _____

Results of Hydrologic Calculations		
Peak Flow in cfs for indicated condition		
	Pre-Development Discharge *	Post-Development Discharge
10-year storm		
25-year storm		
100-year storm		

* Prior to any development.

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 the detention/retention facility(ies) has (have) been constructed in substantial conformance with the pertinent design requirements and that the detention/retention 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 detention/retention facility at the time of my inspection.

Signature and Seal of PE

Form 2 – Stormwater Detention/Retention Facility Maintenance Agreement

This AGREEMENT, made and entered into this day of _____, 20__ by and between _____, hereinafter called the “Owner”, and the City of Columbia, hereinafter called the “City”.

WITNESS, that

WHEREAS, the Owner is the owner of certain real property described as Tax Map Parcel No. _____ as recorded by deed in the R.M.C. Office of Richland County, South Carolina, (Address _____) hereinafter called the “Property”,

WHEREAS, the Owner desires to operate a stormwater detention/retention facility located on the Property in such a condition so as to ensure that it will properly function as a stormwater management facility, consistent with its design intent, and qualify the Owner to receive a stormwater utility service charge credit from the City for the Property,

WHEREAS, the City agrees to extend a credit to the monthly stormwater fee of the Owner in exchange for the Owner providing in all respects, the required level of maintenance,

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

The stormwater facility for which the fee credit is extended shall be maintained by the Owner to meet the following minimum requirements:

1. Sediment shall be removed when 20% of storage volume of the facility is filled.
2. Sediment traps, if existing, shall be cleaned out when filled.
3. No woody vegetation shall be allowed to grow on the embankment without special design provisions.
4. Other vegetation shall be cut when it exceeds 18 inches in height unless part of managed landscaping.
5. Debris shall be removed from blocking inlet and outlet structures and from areas of potential clogging. This is especially important after major storms. Extended detention control devices should be checked often for debris accumulation and/or clogging.
6. The control structures shall be kept structurally sound, free from erosion, and functioning as designed.
7. Periodic removal of dead vegetation shall be required.
8. No standing water is allowed within extended detention basins.
9. The site should be inspected and debris removed after every major storm.

The City reserves the right to periodically inspect the facility. If during such visit the City notes deficiencies, the Owner will be notified in writing with a Notice of Violation. The Notice of

Violation will describe the deficiencies that need correction in order for the facility to maintain its credit status. The Notice of Violation will also indicate that the Owner has 30 calendar days to correct the deficiencies at which time a follow-up inspection shall be conducted. If the deficiencies are not rectified to the satisfaction of the City at the time of the follow-up inspection, the City further reserves the right to withdraw the credit effective as of the follow-up inspection resulting in a failure to operate as represented by this agreement.

Owner _____ Date _____

Witness _____ Date _____

Witness _____ Date _____

City Engineer _____ Date _____

Witness _____ Date _____

CITY OF COLUMBIA
Form 3 – Checklist for Detention/Retention Facility Inspection

Instructions to Inspector:

Make contact with the authorized contact from Form 1 to notify and coordinate site inspection. Authorized contact or owner need not be present for site inspection though inspector should make every effort to accommodate authorized contact's availability to accompany inspector.

Fill out the form completely and return to Supervisor/Department of Engineering.

Any deviations from the supplied site plans should be noted and annotated in red pen on the plans.

General Information

Inspector's Name: _____ Date Inspected: _____

Attach Form 1 for General Information

EDUCATION CREDITS

AMOUNT OF CREDIT

The overall goal is to give a credit to public and private educational institutions (grades 1-12 or equivalent) that educate and inform students on the importance of our surface and groundwater resources, and how they can play a role in preserving and restoring the physical, chemical and biological integrity of our water resources.

- ◆ A 20 percent credit to the computed fee will be given to those qualifying programs.

SPECIFIC POLICIES

1. All public or private educational institutions in grades one through twelve, or equivalent, which teach as part of their official curriculum *The Water Sourcebook Series* program, or a similar program approved in advance by the City Engineer (or his or her designee), may be eligible for a percentage reduction, or credit, in that property's stormwater service fee.
2. The credit shall not be available to individual residences. Thus, home schooling locations which are normally in individual residences shall not be eligible for the education credit.
3. The credit shall not be available to educational institutions which have less than ten full-time individuals enrolled in the institution.
4. No other curriculum shall be eligible for such credit unless granted on appeal to the City Engineer (or his or her designee).
5. Schools with multiple sites may obtain credit only for those sites which teach the curriculum.
6. Schools do not need to offer the curriculum during the summer to obtain a 12 month credit. No credit will be given for curriculum offered less than half the school year.
7. The credit application must be renewed annually prior to the beginning of the school year.
8. Credit shall be granted only for those properties or individual parcels where schools are located. Other properties owned by a school district or organization such as administrative buildings, maintenance shops, or other non-educational buildings will not be eligible for the education credit. However, all impervious surfaces located on a property where there is a school will be eligible for the credit if the school qualifies.
9. To receive any credit towards the stormwater utility service charge, the property owner must insure that: (1) *The Water Sourcebook Series* program or approved equivalent is part of the official curriculum; and (2) complete Credit Application Form (Form 4).

10. If all requirements and conditions of this section are met, the credit will be available upon successful completion of an application process and the application is approved by the City Engineer (or his or her designee). The credit shall remain in force as long as *The Water Sourcebook Series* program or approved equivalent is part of the official curriculum. If the affected property discontinues *The Water Sourcebook Series* program or approved equivalent, the credit will be terminated.

INSTRUCTIONS FOR CREDIT APPLICATIONS

1. The applicant must complete the Credit Application, provide verification that *The Water Sourcebook Series* program or approved equivalent is part of the official curriculum, and provide additional documentation as may be required by the City Engineer (or his or her designee).
2. Any credit granted will be effective for the next regular billing cycle after approval of the application by the City and shall remain in effect through the current school year.
3. Completed applications and supporting documentation must be submitted to the City of Columbia Department of Engineering at Post Office Box 147, Columbia, South Carolina, 29217.
4. All submittals must be made on 8 ½" x 11" format. Maps, drawings, and diagrams must be folded to 8 ½" x 11" and suitable for filing.
5. All application packages must contain a copy of the latest water and sewer bill indicating the property's water/sewer/stormwater account number, stormwater fee, etc.

If you need assistance in completing the application or in providing the requested material, please contact the City of Engineer's office at (803) 733-8232.

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Form 4 – Education Credit Application Form

Instructions:

Fill out this form completely. A separate application must be made for each separate property location.

Fill out and attach copies of the curriculum and other applicable documentation.

Mail completed Form and copies to: City of Columbia, Department of Engineering, PO Box 147, Columbia, SC 29217.

Property Information (please type or print in ink)

Name of School _____

Property Address _____

Water/Sewer/Stormwater Account Number _____

Property Tax Map Number (if known) _____

Applicant Information

Name _____

Address _____

Contact Person _____

Telephone Number _____

I hereby request the City of Columbia review this application for a stormwater utility service charge credit. I further authorize the City of Columbia the right, from time to time, to visit classes or talk to teachers and principals about the course and its overall success for the purpose of consideration for a stormwater utility service charge 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 property owner or person financially responsible if an individual, or if not an individual by an officer, director, partner, or registered agent with authority to execute instruments for the person financially responsible). I agree to provide corrected information should there be any change in the information provided herein.

Type or print name
Owner/Person Financially Responsible

Title or Authority

Signature
Owner/Person Financially Responsible

Date