

# **COLUMBIA COUNTY BOARD OF COMMISSIONERS**

## **STORMWATER UTILITY**

## **SERVICE FEE CREDIT MANUAL**



**Columbia County  
Engineering Services Division  
Stormwater Operations Department  
(706) 855-7246**

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## Table of Contents

<b>1. Overview and General Instructions .....</b>	<b>1</b>
1.1 DEFINITIONS .....	1
1.2 GENERAL POLICIES .....	3
1.3 APPLICATION PROCEDURES .....	5
<b>2. Summary of Service Fee Credits .....</b>	<b>6</b>
<b>3. Credit Policies and Procedures .....</b>	<b>7</b>
3.1 PONDS.....	7
3.2 RESIDENTIAL GREEN INFRASTRUCTURE .....	9
3.3 INFILTRATION PRACTICE.....	11
3.4 RESIDENTIAL AND INDUSTRIAL TREE PLANTING .....	12
3.5 NON-RESIDENTIAL TREE PLANTING .....	14
3.6 STREAMBANK STABILIZATION/RESTORATION .....	16
3.7 REDUCED IMPERVIOUS SURFACE.....	18
3.8 LOW IMPACT PARCEL .....	19
3.9 NATURAL AREA PRESERVATION.....	20
3.10 WATERSHED STEWARDSHIP PROGRAMS .....	21
3.11 EDUCATION PROGRAMS.....	23
3.12 INDUSTRIAL STORMWATER PERMIT COMPLIANCE.....	24
<b>4. Maintenance Standards.....</b>	<b>25</b>
4.1 MAINTENANCE AND INSPECTIONS PLAN GUIDELINES.....	25
4.2 INSPECTIONS .....	25
4.3 VEGETATIVE COVER FOR DETENTION FACILITIES .....	26
4.4 STRUCTURAL MATERIALS.....	26

**Appendix A: Stormwater Utility Credit Application**

**Appendix B: Permanent Stormwater System Maintenance and Inspection Agreement**

**Appendix C: Operation and Maintenance Inspection Report for Stormwater Management Ponds (Pond Inspection Checklist)**

**Appendix D: Engineered Pond Calculation Form**

**Appendix E: Annual Certification Form**

## 1. Overview and General Instructions

Columbia County's Stormwater Utility provides a stable and adequate source of revenue for the County's Stormwater Management Program. This Program has many beneficial functions, ranging from successful performance of our stormwater infrastructure to preventing pollution in our streams and other natural resources. Each property within the designed stormwater service area that contains impervious surface is charged a fee that is directly proportional to the size of that impervious surface.

The intent of the Stormwater Service Fee Credit Manual is to recognize on-site systems, facilities, or other actions that mitigate the impact and/or improve the quality of stormwater runoff. Stormwater service fee credits may be achieved through the use of one or more activities as outlined in this manual. The maximum amount of credit allowable is 70% of the total stormwater service fee unless approved by the Stormwater Operations Manager.

### 1.1 Definitions

**Best Management Practice (BMP)** means schedules of activities, good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems.

**Credit** means a reduction in a customer's stormwater service fee given for certain qualifying activities which reduce or mitigate the runoff impact that the property has on Columbia County's stormwater management systems and facilities.

**Detention Facility** means a system which provides temporary storage of stormwater runoff with a designed release of the stored runoff over time to manage the discharge volume, rate, pollutant loading and/or velocity and mitigate the property's impact on the County's stormwater management system.

**Engineered Pond** means a detention or retention facility, which has been designed by a licensed professional engineer to control the release rate of stormwater discharge from such facility.

**Georgia Stormwater Management Manual (GSMM)** is the most recent version of the document that governs stormwater management activities in Georgia. This document serves as a comprehensive technical handbook for stormwater management design, construction and long-term maintenance.

**Industrial** means a developed property that contain structures utilized for industrial uses and includes those properties zoned M-1 (Light Industrial), M-2 (General Industrial), and properties utilized for industrial uses within a PUD (Planned Unit Development) or S-1 (Special) zoning district.

**Pond** means any body of water, which may or may not have a man-made outlet, that contains water and receives stormwater runoff. For the purposes of this manual, ponds do not include purely ornamental water features, such as fountains or Koi ponds, that are lined and do not allow for

infiltration or flow of water to the subsurface.

***Non-Residential*** means a developed property that contains structures utilized for purposes other than a residential dwelling unit. Non-Residential properties include those classified as commercial, industrial, institutional, educational, religious, municipal, or recreational. For the purposes of the manual, BMPs owned and operated by a Property Owners Association (POA), which is registered as a corporation, will qualify for credit as a non-residential property. A Home Owners Association (HOA) is treated the same as a POA.

***Residential*** means a developed property that contains a main dwelling, with each dwelling unit occupying its own parcel. Residential property shall be classified as residential and shall not be commercial, industrial, institutional, educational, religious, municipal, recreational, or property owned and maintained by a POA.

***Retention Facility*** means a facility which provides storage of stormwater runoff, preventing release of a certain volume to a surface water body.

***Stormwater*** means rain runoff, snow melt runoff, and surface runoff and drainage.

## 1.2 General Policies

General credit policies are listed below:

1. Credit is given to eligible properties as described in the credit policies presented in this manual.
2. A POA, which has its own properly designed, constructed, and maintained stormwater BMP(s), particularly ponds, may be eligible for credit. For the purposes of the credit, the BMP(s) must be located on a parcel that is platted within the subdivision and owned by the POA. BMPs located on County-owned property, to include rights-of-way and greenspace, or BMPs maintained by the County through a dedicated maintenance easement or other legal agreement are ineligible for a credit. It is the responsibility of the property owner or agent to apply for stormwater credits and provide the necessary documentation with the Credit Application, as described herein. Stormwater Utility staff shall not be responsible for initiating applications, performing engineering calculations or otherwise assisting with the preparation of credit applications.
3. Credit applications for existing facilities may be submitted at any time. Approved credits will be applied to the billing cycle following the date on which a complete application has been approved by Columbia County. Approved credits will not retroactively effect billings. Stormwater Utility accounts must be current and paid in full for a credit application to be considered.
4. Credit applications must be made by the entity that owns the property and/or is responsible for payment of the utility account. If the responsible entity for payment of service fee changes, the new customer must re-apply for the credit, regardless of whether the credit term has expired or is still active. The new customer may be able to rely on some (or all) of the information from a previous credit application package, but it will be the responsibility of the applicant to verify the information within the submitted credit application package.
5. Credit applications for new subdivision and commercial site construction may be submitted once the BMP is in place and stormwater billing begins.
6. For new stormwater BMP construction on existing sites (e.g., building a rain garden on an existing residential lot or open business), Columbia County will inspect the BMP during construction. Approval from the Stormwater Operations Manager must be received **prior** to commencement of construction. See applicable credit in the manual for complete details.
7. All credits have a term of one (1) year and must be annually certified in order for the customer to maintain the credit for the following year. The only exception to this is the Open Space Preservation credit, which has a five (5) year credit term.
8. During the credit term, Columbia County has the right to inspect the BMP to ensure it is functioning and being properly maintained. If the BMP facility or program is not functional or is not being properly maintained, Columbia County has the authority to void the credit on the next billing cycle. Before a credit is re-instated, the customer will have to reapply for the credit as outlined in this manual.

9. Credits that were issued prior to the date of the most recent adoption of this Credit Manual will be grandfathered so long as the credit does not lapse and the customer submits annual credit renewal documents, per the current manual, that demonstrate that the BMP (particularly ponds) continues to be maintained in good working order.

### 1.3 Application Procedures

The procedure for filing a credit application includes the following tasks:

1. Obtain a copy of the Stormwater Utility Service Fee Credit Manual from the Columbia County website at [www.columbiacountyga.gov](http://www.columbiacountyga.gov). The applicant may also request an emailed copy of the Credit Manual from the Columbia County Stormwater Operations Department by calling 706-855-7246 or emailing [SWUCustomerService@columbiacountyga.gov](mailto:SWUCustomerService@columbiacountyga.gov).
2. Submit complete credit applications, including all supporting documentation, via email to [SWUCustomerService@columbiacountyga.gov](mailto:SWUCustomerService@columbiacountyga.gov) or by U.S. Mail to P.O. Box 498, Evans, GA 30809. Alternatively, complete credit applications may be submitted in person to one of two locations, (1) the Columbia County Stormwater Operations Department located in Building C of the Columbia County Complex at 2140 William Few Parkway in Grovetown, Georgia or (2) the Columbia County Stormwater Compliance Department located in Building A of the Columbia County Complex at 630 Ronald Reagan Drive in Evans, Georgia.
3. Columbia County will review the application package for completeness and accuracy within 30 days of the receipt of the application form. If the application package is complete and accurate, an email and/or letter will be sent to the applicant notifying them of approval of the credit. If deficiencies are found during the review, a deficiency letter will be sent to the applicant. Upon receipt of additional information from the applicant to constitute a complete application, the review will resume and be completed within 30 days of receipt of the additional information. If an application is denied, a letter explaining the reasons for the denial will be provided to the applicant.
4. Upon the successful application for a stormwater service fee credit, Columbia County will update the billing database to issue the credit, starting with the next billing cycle. Approved credits will not retroactively effect billings.
5. With the exception of the Open Space Preservation credit, all credit terms expire on June 1<sup>st</sup> of each year. For applicable credits, it is the property owner's responsibility to submit **Appendix E** - Annual Certification Form as well as the appropriate form inspection form annually to continue receiving credit. Failure to submit the required information will result in discontinuation of the credit on the next billing cycle following the June 1 expiration.

## 2. Summary of Service Fee Credits

Table 1 summarizes the user fee credits available to Stormwater Utility customers. Please refer to the respective sections of this document for further details on the various credits, policies, procedures, etc.

*Table 1: Summary of Service Fee Credits*

Credit	Eligible Customer		Maximum User Fee Reduction <sup>4</sup>
	Residential	Non-Residential	
Ponds <sup>1</sup> (Pg. 7)	✓	✓	50%
Residential Green Infrastructure (Pg. 9)	✓		20%
Infiltration Practice <sup>1</sup> (Pg. 11)	✓	✓	20%
Residential and Industrial Tree Planting (Pg. 12)	✓	✓	20%
Non-Residential Tree Planting (Pg. 14)		✓	20%
Streambank Stabilization/Restoration (Pg. 16)	✓	✓	50%
Reduced Impervious Surface <sup>2</sup> (Pg. 18)	✓	✓	100% (one year only)
Low Impact Parcel (Pg. 19)	✓	✓	20%
Natural Area Preservation (Pg. 20)	✓	✓	20%
Watershed Stewardship Programs (Pg. 21)	✓	✓	20%
Educational Programs <sup>3</sup> (Pg. 23)		✓	20%
Industrial Stormwater Permit Compliance (Pg. 24)		✓	20%

<sup>1</sup> Residential customers that are part of a common development can collectively apply through their Property Owner's Association (POA).

<sup>2</sup> Credit is available for one year only.

<sup>3</sup> Only public and private schools are eligible.

<sup>4</sup> The maximum amount of credit allowable is 70% of the total stormwater utility service fee with the exception of the Reduced Impervious Surface credit.

### 3. Credit Policies and Procedures

The purpose of this section is to explain the procedures involved in applying for a stormwater service fee credit. The procedures include step by step instructions and eligibility requirements for obtaining stormwater service fee credits.

#### 3.1 Ponds

*Eligible Customers:* Residential and Non-Residential Customers.

*Maximum Credit:* 50%

*Credit Term:* One Year

*Annual re-application due:* June 1<sup>st</sup>

*Credit Description:* Customers who have a constructed onsite stormwater retention or detention pond facilities can apply for and receive a maximum of fifty percent (50%) credit on their monthly stormwater service fee by following the instructions of this section. Only the owner of the pond can apply for the credit and the credit shall only apply to that portion of the property served by the pond, unless otherwise approved by the Stormwater Operations Department. Residential customers that are part of a larger common development (or subdivision) that has a privately maintained storm water facility can collectively apply for the credits through their POA.

In order to receive any credit, the customer must demonstrate that the stormwater facility is in good working order and that routine maintenance of the facility has been and will continue to be conducted in accordance with GSMM, Appendix E: Operations & Maintenance Guidance Document, and their approved Maintenance and Inspection Plan.

Credits are available under the following general conditions and criteria, and customers may build their total credit available by meeting each of the successive criteria below:

- A 20% credit is available to customers who can demonstrate, through annual inspections, that their pond is in good working order and has been maintained in accordance with their Maintenance and Inspection Plan; and
- An additional 10% credit is available to customers that can demonstrate, through analysis conducted by a Georgia Professional Engineer, that the peak stormwater discharge rate for the 50-year storm from their stormwater retention/detention facility on a post-developed site (Qpost) is the same as the peak stormwater discharge rate before development (Qpre); and
- An additional 10% credit is available to customers that can demonstrate, through analysis conducted by a Georgia Professional Engineer, that the peak stormwater discharge rate for the 50-year storm from their stormwater retention/detention facility on a post-developed site (Qpost) is 10% less than the peak stormwater discharge rate for the 50-year storm before development (Qpre); and
- An additional 10% credit is available to owners that can demonstrate, through analysis conducted by a Georgia Professional Engineer, that the peak stormwater discharge rate for the 50-year storm from their stormwater retention/detention facility on a post-developed site (Qpost) is 20% less than the peak stormwater discharge rate for the 50-year storm before development (Qpre).

*Application Instructions:* To apply for this credit, the property owner must complete the following forms and submit them to the Stormwater Utility Department:

1. **Appendix A** - Stormwater Utility Credit Application Form. For a POA seeking credit, a list of the properties which are included in the POA must be attached to the application
2. **Appendix B** - Permanent Stormwater System Maintenance and Inspection Agreement, including Maintenance and Inspection Plan
3. **Appendix C** - Operation and Maintenance Inspection Report for Ponds
4. **Appendix D** – Engineered Pond Calculation Form, if applicable
5. Hydrology report (or comparable document) prepared by and sealed by a Georgia Professional Engineer, unless otherwise approved by the County, demonstrating compliance with the requirements and criteria outlined herein



*Dry/Detention Pond*

### 3.2 Residential Green Infrastructure

*Eligible Customers:* Residential

*Maximum Credit:* 20%

*Credit Term:* One Year

*Annual re-application due:* June 1st

*Credit Description:* Residential customers can be eligible for a stormwater credit if they install one or more residential green infrastructure (GI) practices. These stormwater management practices may include, but are not limited to, such items as rain barrels, cisterns, rain gardens, pervious pavement, and other infiltration practices identified as appropriate for residential development in the GSMM and the Columbia County Green Infrastructure/ Low Impact Development (GI/LID) Program. Residential customers who can demonstrate that they successfully installed the GI practice in general accordance with the GSMM or another appropriate guidance handbook can apply for, and if approved, can receive up to a twenty percent (20%) credit off their monthly stormwater service fee. If a reference handbook other than the GSMM is proposed to be used, the customer shall coordinate approval of that handbook with the Stormwater Operations Manager **prior** to undertaking any work.

If a customer chooses to install rain barrels, they must be water-tight with a capacity of 40 gallons or more to allow interception of rainwater from a downspout. Additionally, the rain barrels must have a spigot such that stored runoff water can be drained in a controlled manner at a later time.

In order to receive credit, residential customers must provide documentation either a) that a minimum of one-half of the downspouts from their roof gutter system are tied to the selected green infrastructure practice or b) that the green infrastructure practice is designed to treat the runoff from 50% or more of their rooftop, or the equivalent impervious area. There is an exception for pervious pavers, pervious asphalt or pervious concrete driveways, which will receive a credit of 20% if the customer can demonstrate that they were installed per the product specifications. Customer must receive approval for their selected green infrastructure practice prior to installation and must install that practice to the satisfaction of the Stormwater Operations Manager in order to receive credit.

The customer must maintain the GI Practice in accordance with the approved Maintenance and Inspection Plan and demonstrate that it is in good working order through an annual inspection. The customer must submit a completed inspection form prior to the credit expiration date in order to maintain this credit.

*Application Instructions:* To apply for this credit, the property owner must submit the following information to the Stormwater Operations Department:

1. **Appendix A** - Stormwater Utility Credit Application Form
2. **Appendix B** - Permanent Stormwater System Maintenance and Inspection Agreement, including Maintenance and Inspection Plan
3. Operation and Maintenance Inspection Form for applicable infiltration practices, available online at [www.columbiacountyga.gov/development/engineering-services-division.com](http://www.columbiacountyga.gov/development/engineering-services-division.com) (in the “Stormwater Compliance” section) or from the County upon request
4. A sketch of the property showing the location of each residential GI

5. A site plan/sketch of the green infrastructure practice and the reference in the GSMM or other approved guidance handbook for its construction specifications
6. Photographs of each residential GI as installed



*Rain Garden Diagram*



*Rain Garden*

### 3.3 Infiltration Practice

*Eligible Customers:* Non-residential, and residential customers that are part of a larger common development with a POA where the POA owns the infiltration practice.

*Maximum Credit:* 20%

*Credit Term:* One Year

*Annual re-application due:* June 1<sup>st</sup>

Customers are eligible for an infiltration practice credit of 20% if the customer can demonstrate that the on-site infiltration practices can successfully infiltrate the first 1.0” of rainfall in accordance with the GSMM infiltration standards. Customers may be able to qualify for a partial credit of 10% if they can demonstrate that the GI/LID practice infiltrates at least the first 0.5” of stormwater runoff.

The infiltration associated with GI/LID practices must be appropriately documented through technical analysis by a qualified professional (i.e. engineer, surveyor, landscape architect), and must meet the standards of the GSMM and Columbia County’s Post Construction Stormwater Runoff Management Ordinance.

*Application Instructions:* To apply for this credit, the property owner must complete the following forms and submit them to the Stormwater Utility Department:

1. **Appendix A** - Stormwater Utility Credit Application Form. If a POA is seeking credit, a list of the properties which are included in the POA must be attached to the application
2. **Appendix B** - Permanent Stormwater System Maintenance and Inspection Agreement, including Maintenance and Inspection Plan
3. Operation and Maintenance Inspection Form for applicable infiltration practices, available from the County upon request
4. Hydrology report (or comparable document) prepared by and sealed by a Georgia Professional Engineer, Georgia Registered Land Surveyor, or Registered Landscape Architect demonstrating compliance with the requirements and criteria outlined herein



### 3.4 Residential and Industrial Tree Planting

*Eligible Customers:* Residential and Industrial

*Maximum Credit:* 20%

*Credit Term:* One Year

*Annual re-application due:* June 1<sup>st</sup>

*Credit Description:* Columbia County desires to promote and encourage an expansive and healthy tree canopy by offering a service fee credit of up to twenty percent (20%) for tree planting. Trees intercept large amounts of rain on their surface areas (leaves, branches, and trunks) and also absorb rainfall through their root systems, which mitigates the impacts of stormwater runoff, both in quantity and quality.

Eligibility for a service fee credit associated with tree planting is outlined below and should be used in conjunction with these sections of the Columbia County Code:

- Section 90-145 List of Recommended Trees
- Section 90-140 Landscaping
- Section 90-141 Tree Protection

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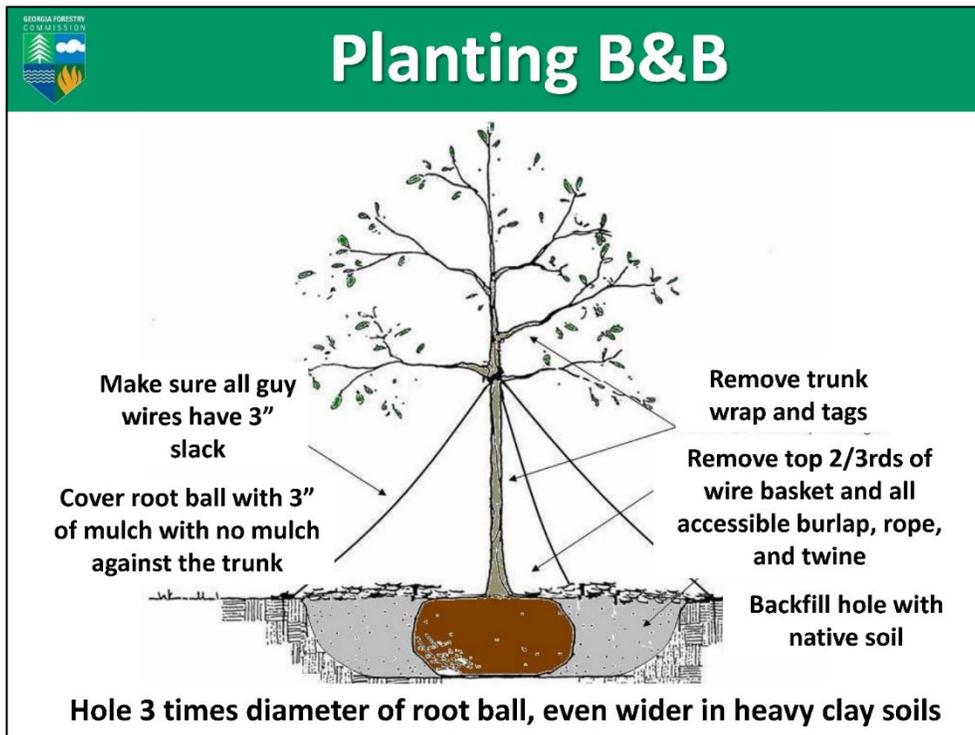
1. **New Development / Redevelopment Sites:** A customer can achieve the 20% maximum through a combination of increased density and/or caliper size for the tree planting plan following completion. In general, to be eligible for this credit, the customer should develop a proposed tree planting/landscape plan that exceeds the minimum Columbia County Tree Protection Ordinance tree density requirements by at least 10%. A plan that exceeds the minimum standards will be eligible for a credit following planting completed in accordance with that plan. For example, if the customer exceeds the ordinance minimum standards by 7%, then that customer would receive a 14% credit on their stormwater service fee. The applicant should work with County staff to determine the total credit percentage for their site/account based on: (1) the minimum tree density requirements; (2) the proposed exceedance of the minimum requirements; and (3) the calculations associated with the applicable requirements. The tree planting plan must be approved by the County prior to starting work.
2. **Existing Development:** Where the stormwater service fee customer wishes to plant trees to receive credit, the customer shall receive a 1% credit for each tree planted per acre of total property, up to 10%. Where the total property area is less than one acre, credit shall be awarded at 1% per tree planted. The applicant must follow the requirements for caliper size and species as specified by the County. Applicants should consult with the County prior to initiating any tree planting or landscape modification plans for an existing site. The applicant must have their tree planting plan approved by the County prior to installation of any trees or before credit is awarded.
3. **Trees planted or located within the County Street Right of Way or other County-owned property do not qualify for a user fee credit. Trees planted within a County easement do not**

qualify for a user fee credit.

4. Trees must be planted and preserved properly and be maintained in good, healthy condition to continue to receive a service fee credit. This includes trees planted to meet minimum standards on new development / redevelopment sites, in addition to the trees planted above minimum standards that qualify for this credit.
5. Trees planted must be on the Columbia County Approved Tree Planting list, or otherwise approved by the Columbia County Landscape Architect.

*Application Instructions:* To apply for this credit, the property owner must submit the following information to the Stormwater Operations Department:

1. **Appendix A** - Stormwater Utility Credit Application Form
2. For new development or redevelopment provide the tree planting plan to illustrate how the applicant intends to exceed the minimum County standards. Also, provide a photos of the work performed to show consistency with approved plan
3. For existing development provide a tree planting plan that includes the parcel area and locations of existing trees and future proposed trees. Also provide photographs to confirm the successful completion of the plantings in accordance with the approved plan
4. For all applications, provide a maintenance and protection plan for the planted trees



### 3.5 Non-Residential Tree Planting

Eligible Customers: *Non-Residential*

Maximum Credit: *20%*

Credit Term: *One Year*

Annual re-application due: *June 1<sup>st</sup>*

*Credit Description:* Similar to the tree planting credit for residential properties, Columbia County desires to promote an expansive and healthy tree canopy on non-residential properties by offering a service fee credit of 20% for eligible properties who add increased width to required landscape strips along right of ways or internal drives.

Eligibility for a service fee credit associated with tree planting is outlined below and should be used in conjunction with these sections of the Columbia County Code:

- Section 90-145 List of Recommended Trees
- Section 90-140 Landscaping
- Section 90-141 Tree Protection

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1. *New Development/Redevelopment and/or Existing Development:* A customer can achieve a 20% credit by increasing the width of their required landscape strip along right of ways or internal drives by a minimum of 10% of the required width and with a minimum 10% increase in required trees and shrubs. For example, if the submitted project requires a landscape strip of a minimum width of 20 feet, then in order to receive the credit the landscape strip must be increased to 22 feet at a minimum and planted at a rate of 2.2 trees per 40 feet of frontage and 2.2 shrubs per every four feet of frontage. Further, all required landscape strips must be increased by this minimum amount to receive the credit. The tree planting plan must be approved by Columbia County prior to starting work.
2. Trees planted or located within the County Street Right of Way or other County-owned property do not qualify for a user fee credit. Trees planted within a County easement do not qualify for a user fee credit.
3. Trees must be planted and preserved properly and be maintained in good, healthy condition to continue to receive a service fee credit. This includes trees planted to meet minimum standards on new development / redevelopment sites, in addition to the trees planted above minimum standards that qualify for this credit.
4. Trees planted must be on the Columbia County Approved Tree Planting list, or otherwise approved by the Columbia County Landscape Architect.

*Application Instructions:* To apply for this credit, the property owner must submit the following information to the Stormwater Operations Department:

5. **Appendix A** - Stormwater Utility Credit Application Form

6. For new development or redevelopment provide the tree planting plan to illustrate how the applicant intends to exceed the minimum County standards. Also, provide photos of the work performed to show consistency with approved plan
7. For existing development provide a tree planting plan that includes the parcel area and locations of existing trees and future proposed trees. Also provide photographs to confirm the successful completion of the plantings in accordance with the approved plan
8. For all applications, provide a maintenance and protection plan for the planted trees



### 3.6 Streambank Stabilization/Restoration

*Eligible Customers:* Residential and Non-Residential

*Maximum Credit:* 50%

*Credit Term:* One Year

*Annual re-application due:* June 1<sup>st</sup>

Streambank stabilization is the repair of an unstable streambank utilizing one of the following three categories: live planting, bioengineering, and hard armoring. Approval to construct any stabilization practices must be obtained from the Columbia County Stormwater Operations Manager. Permits may be required based on the project specifications. Generally, streambank stabilization work does not require permits from the US Army Corps of Engineers (USACE) nor the EPD if the work is above the ordinary high water mark and limited as follows:

1. Project is 100 linear feet or less of bank stabilization,
2. Total amount of bank stabilization allowed in the buffer is 1,000 square feet,
3. Disturbance of existing buffer vegetation is minimized, and
4. The site is stabilized at the end of each day with temporary or permanent stabilization measures until project completion.

Examples of such stabilization measures include, but are not limited to, live staking, vegetated geogrid, coconut fiber roll, and riprap. See the GA DNR guidance document “Streambank and Shoreline Stabilization: Techniques to Control Erosion and Protect Property” for further information, including the preferred, acceptable, and discouraged stabilization methods. Please coordinate with the Stormwater Operations Manager before any actual construction takes place.

The amount of credit is based on the amount of area stabilized and the type of stabilization method used. For each 20 linear foot segment of stabilization applied using a preferred or acceptable stabilization method, the customer is eligible for a 10% credit up to 50% credit. At the Stormwater Operations Manager’s discretion, a 50% reduction in the percentage of credit received may be applied for use of discouraged stabilization methods.

For example, if a property owner stabilizes 60 linear foot of their streambank with live plantings then they are eligible for a 30% credit; however, if a property owner stabilizes 60 linear foot of their streambank with riprap, or other discouraged structural practice as identified in the GA DNR guidance document referenced above, the customer may only be eligible for a 15% credit at the Stormwater Operations Manager’s discretion based on site conditions and the ability to stabilize the streambank using a preferred or acceptable method instead of a discouraged method.

Customers are encouraged to coordinate with the Stormwater Operations Manager early in the planning process if a discouraged stabilization method is to be proposed to determine if a credit reduction is likely to be applied.

*Application Instructions:* To apply for this credit, the property owner must submit the following information to the Stormwater Utility Department:

1. **Appendix A** - Stormwater Utility Credit Application Form
2. **Appendix B** - Permanent Stormwater System Maintenance and Inspection Agreement, including Maintenance and Inspection Plan, if required
3. Site plan sketch
4. The customer must review the proposed plan with the County prior to starting work to ensure that all applicable codes and requirements are met
5. Applicable permit approvals from the County, USACE, and EPD (The customer is responsible for securing the required permits and approvals prior to starting work)
6. At the conclusion of the field work, the customer must provide photographic documentation that the activities completed adhered to the approved plan. The County reserves the right to inspect the completed project prior to awarding of the credit.



*Hard Armor Stabilization*



*Live Stake Stabilization*

### 3.7 Reduced Impervious Surface

*Eligible Customers:* Residential and Non-Residential

*Maximum Credit:* 100%

*Credit Term:* One Year

*Annual re-application due:* N/A. Credit is only available for one year.

*Credit Description:* A one-time credit shall apply to non-residential customers who can document that they have successfully removed impervious surface from their property and replaced the area with pervious cover (i.e. grass, landscaping, etc.) or an approved stormwater BMP such as pervious concrete, pervious asphalt, etc.

Customers who have shown that they have removed 25% or more of the existing impervious cover from their property shall qualify for a credit of 100% for the year in which the activity occurred. After 12 months, the customer's service fee will be calculated based on the reduced amount of impervious surface for the site. Removal of impervious surface must be equal to or greater than 25% of the existing impervious surface for the property to qualify.

*Application Instructions:* To apply for this credit, the property owner must submit the following information to the Stormwater Operations Department:

1. **Appendix A** - Stormwater Utility Credit Application Form
2. **Appendix B** - Permanent Stormwater System Maintenance and Inspection Agreement, including Maintenance and Inspection Plan, if a stormwater BMP is to be added in the new pervious area
3. Site plans showing the total impervious surface for the parcel before and after the proposed removal activities, including an illustration of which impervious surfaces will be removed and a landscaping site plan showing how the pervious area will be replanted after construction is completed
4. Meeting with the County to review plans prior to commencement of field activities to ensure that all applicable codes and requirements are met
5. Applicable permit approvals from the County and other regulatory agencies as applicable (The customer is responsible for securing the required permits and approvals prior to starting work)

*Post-construction inspection approval from the Stormwater Operations Department at the conclusion of the field work*

### 3.8 Low Impact Parcel

*Eligible Customers:* Residential and Non-Residential

*Maximum Credit:* 20%

*Credit Term:* One Year

*Annual re-application due:* June 1<sup>st</sup>

*Credit Description:* There are some properties/sites in the County where the total impervious area footprint is relatively small as compared to the gross parcel area. The ratio of impervious surface to total parcel area can result in reduced stormwater runoff impacts since a majority of the parcel is undeveloped. A credit of 20% shall apply to customers who can prove that their parcel meets the “low-impact” development criteria presented herein. The low impact parcel credit criteria are summarized in Table 2:

<b>Table 2: Stormwater User Fee Credit Criteria for Low-Impact Parcels</b>
Total Parcel Area must be greater than 2 acres
Total Impervious Area must be less than 10% of total parcel area

Each customer that wishes to apply for this credit shall be responsible for calculating the total parcel area and impervious surface area. Each customer shall utilize the following procedures:

1. Determine the total area of the parcel. The area must be a minimum of two (2) acres. Total area includes both pervious and impervious areas.
2. Determine the total impervious area for the parcel. This can be determined through a site survey or by using aerial imagery. Upon request, the County can provide this information for existing stormwater utility customers. The impervious area shall include the structure, driveway, loading dock, sidewalk (do not include the sidewalk in the County right of way), pool deck, patio, shed, or any other accessory impervious area. The total amount of impervious surface must be less than 10% of the total gross area of the parcel.
3. Calculate the percentage of impervious surface as shown below.
  - o  $\text{Impervious area (IA) / Total parcel area (TPA)} = 0.10$  (or less)

*Application Instructions:* To apply for this credit, the property owner must submit the following information to the Stormwater Operations Department:

1. **Appendix A** - Stormwater Utility Credit Application Form
2. The calculation showing the percentage of impervious area is less than 10%
3. A site plan or map showing the total parcel area and the total impervious surface area. This information should be documented in the form of a plan and aerial image that will allow County personnel to verify the measurements, calculations and other pertinent information

### 3.9 Natural Area Preservation

*Eligible Customers:* Residential and Non-Residential

*Maximum Credit:* 20%

*Credit Term:* Five Years

*Annual re-application due:* June 1<sup>st</sup>

*Credit Description:* Customers can receive a service fee credit of up to 20% for permanently preserving natural areas on their property. In order for a customer to be eligible for this credit, the customer must demonstrate that at least ten (10) acres of contiguous greenspace will be preserved. In general, lands that would likely qualify for natural area preservation credit must be undeveloped and undisturbed. In addition, the natural area must be permanently protected through a conservation easement or other deed restriction, unless otherwise approved by the Stormwater Operations Manager.

Starting with a minimum of at least 10 acres of contiguous greenspace, qualifying customers are eligible to receive a 1% credit for every 1% of the total area of the property that is permanently protected up to a maximum of up to a 20% credit.

For example, if a property owner permanently protects 15 acres of a 20 acre parcel (3/4<sup>th</sup> the property) they are eligible for 3/4<sup>th</sup> of the credit, which is 15%. If a different property owner permanently protects 18 acres of a 30 acre parcel they would be eligible for a 12% credit.

Please note that the same property cannot receive a Low Impact Development Credit and a Natural Area Preservation Credit. These credits are mutually exclusive.

*Application Instructions:* To apply for this credit, the property owner must submit the following information to the Stormwater Operations Department:

1. **Appendix A** - Stormwater Utility Credit Application Form
2. A site plan or survey of the property showing the location of the preserved area in enough detail that the calculation can be verified
3. Copy of the conservation easement or deed restriction or other supporting documentation on file at the courthouse

### 3.10 Watershed Stewardship Programs

*Eligible Customers:* Residential and Non-Residential

*Maximum Credit:* 20%

*Credit Term:* One Year

*Annual re-application due:* June 1<sup>st</sup>

*Credit Description:* Stormwater utility customers can be eligible for a stormwater fee credit of up to twenty percent (20%) if the customer participates in a County-approved local watershed stewardship event. Non-residential customers seeking this credit will have to demonstrate that at least 10 individuals or ten percent (10%) of their staff, attendees, students or congregants (whichever is less) participated in this event to receive a credit. A single person cannot receive both a residential and non-residential credit for participating in a single event or activity. For example, if a person participated in a Stormwater Department-Hosted Workshop, they cannot receive a credit for both their residential stormwater account and for their church's stormwater account.

In general, eligible watershed stewardship activities may include active participation in the Drainage Basin Advisory Council (i.e. attendance at two or more meetings per year) or attendance at a Stormwater Compliance Department-hosted workshop, class, etc. Participation in Adopt-A-Stream sampling events held in Columbia County is also acceptable. Details on the specific credits available are listed below. For questions related to any event below please contact the Stormwater Operations Department at 706-855-7246.

Stormwater Compliance Department-Hosted Workshop: Customers who attend a Stormwater Compliance Department-Hosted Workshop can receive a 10% credit on their bill for one year. Only one credit is available per customer account and a credit cannot be received twice by the same individual for the same class. For example, residential customers must take a different workshop/class in subsequent years in order to maintain the 10% credit. Non-residential customers must send different individuals to the same class if they are to maintain their 10% credit. Alternatively, non-residential customers can also receive a 10% credit in subsequent years for sending the same people to a different class.

Drainage Basin Advisory Council: Members of the Drainage Basin Advisory Council, or people who attend Council meetings, can receive a 10% credit if they have attended two or more Drainage Basin Advisory Council Meetings in a calendar year. This credit is available to residential customers only and may be maintained from year to year if the customer attends two or more meetings in each calendar year.

Adopt-A-Stream: Residential and Non-Residential Customers who actively participate in an Adopt-A-Stream group can receive a 20% credit. Active participation includes maintaining current Adopt-A-Stream training and performing water quality or biological monitoring on a quarterly or more frequent basis. Only one credit is available per customer account and a group that receives a credit for a non-residential account cannot also apply a credit to their individual residential accounts.

Other eligible credit programs may be added in the future, but customers must verify activity

eligibility with the Stormwater Operations Manager in advance. The customer can only receive one watershed stewardship event credit during each year. The customer is responsible for requesting a certificate of participation from the Stormwater Compliance Department or Adopt-A-Stream Coordinator at the time of the event. The Certificate of Participation will include the total number and names of participants and percentage of the total staff, attendees, students or congregants. Participation in events not sponsored by the County can only be used to satisfy this credit if approved by the Stormwater Operations Manager **prior** to the event taking place.

*Application Instructions:* To apply for this credit, the property owner must submit the following information to the Stormwater Operations Department:

1. **Appendix A** - Stormwater Utility Credit Application Form
2. Certificate for participating in an approved Watershed Stewardship event, which includes the number and names of participants and the total number of staff, attendees, students, or congregants of the applicant



### 3.11 Education Programs

*Eligible Customers:* Non-Residential (Public and Private Schools only)

*Maximum Credit:* 20%

*Credit Term:* One Year

*Annual re-application due:* June 1<sup>st</sup>

*Credit Description:* Public and private school customers that educate and inform their students about the importance of our surface and groundwater resources can apply for and receive a twenty percent (20%) credit of their stormwater service fee by following the instructions of this section. The curriculum should be based in standards for the grade level with reputable outside sources incorporated as needed and be approved by a Columbia County Stormwater Outreach Specialist.

To request County staff involvement with this education please call 706-447-7645 to speak with one of our Stormwater Outreach Specialists.

*Application Instructions:* To apply for this credit, the person responsible for the property must submit the following information to the Stormwater Operations Department:

1. **Appendix A** - Stormwater Utility Credit Application Form
2. Documentation that a water resources based curriculum is taught at the facility/property and the extent to which such curriculum is taught



### 3.12 Industrial Stormwater Permit Compliance

*Eligible Customers:* Non-Residential

*Maximum Credit:* 20%

*Credit Term:* One Year

*Annual re-application due:* June 1<sup>st</sup>

*Credit Description:* Non-residential customers, which have applied for and received an Industrial General Stormwater Permit (IGP) through the Georgia Environmental Protection Division (EPD), can apply for and receive a twenty percent (20%) credit of their stormwater service fee by following the instructions of this section. The credit shall only be applied to that portion of the property covered by the permit.

*Application Instructions:* To apply for this credit, the property owner must submit the following information to the Stormwater Operations Department:

1. **Appendix A** - Stormwater Utility Credit Application Form including a sketch of the property showing the area covered by the IGP
2. Copy of the current IGP Notice of Intent
3. Copy of the annual report submitted to the EPD for the previous calendar year
4. Copy of the Stormwater Pollution Prevention Plan

## **4. Maintenance Standards**

Although the actual time that a stormwater management facility performs its design function is relatively brief (during and immediately following a storm event), it must be properly maintained such that it is constantly ready to operate. This is due to the random nature of rainfall events and the impracticality of inspecting the facility and performing maintenance immediately prior to rainfall events. Additionally, pollutant removal efficiencies will decline over time if the required maintenance is not performed on a routine basis. To maintain the established pollutant removal effectiveness, it is important to have the retention or detention BMP facility in proper operational condition at all times. To provide this desired operational level, the owner must develop and implement a maintenance and inspection plan that is approved by the County.

### **4.1 Maintenance and Inspections Plan Guidelines**

Applicants who receive the following credits, as outlined in this document, must keep the stormwater BMPs properly maintained.

Inspection and Maintenance Agreements are required for ponds and infiltration BMPs, in most cases, where the owner is requesting a stormwater service fee credit. All maintenance and inspection plans shall contain, without limitation, the following provisions:

1. A description of the property on which the stormwater management facility is located and all easements required to access the facility;
2. Size and configuration of the facility;
3. Identification of who will have the maintenance responsibility;
4. A detailed description of the maintenance activities to be performed; and
5. A schedule to perform the maintenance activities as well as the necessary record keeping processes that will be used.

In order for the stormwater facility to operate as it was intended, maintenance must be routinely performed. Improperly maintained stormwater facilities do not reduce stormwater impacts as effectively. For detailed information on recommended best practices for maintenance of stormwater facilities that are approved for use in Columbia County, please see Appendix E of the GSMM: Operations & Maintenance Guidance Document.

### **4.2 Inspections**

Scheduled, periodic inspections should provide the foundation for a comprehensive maintenance program. Detailed inspections, occurring at least annually, should be conducted to ensure that the facility is operating as designed and to provide a chance to schedule any maintenance which the facility may require.

If possible, inspections should be made during periods of wet weather to ensure that the facility is functioning as designed. Inspection checklists for stormwater ponds and facilities are included in Appendix C. In addition to regularly scheduled inspections, the opportunity should be taken to note deficiencies during any visits by maintenance personnel. After major storm events the facility

should be checked for clogging of the outlet structure.

### **4.3 Vegetative Cover For Detention Facilities**

If allowed to become established, small trees and brush with woody root systems can grow to cause de-stabilization and seepage in pond embankments which may result in the structural failure of the facility. For this reason, the dam embankment, side-slopes, and emergency spillway of a facility should be kept free of woody growth and undesirable vegetation. This will require periodic mowing and a policy of not allowing plantings on these facilities. The frequency of mowing may need to be greater if the facility is located in an area of high visibility. However, if possible, the facility should be managed as an upland meadow with grass no shorter than 6-8 inches. Keeping grass much shorter than this can cause areas of the turf to die off or require a much higher level of maintenance.

Gradual slopes are necessary for establishing vegetative cover and for ease of mowing. Guidelines recommend a maximum of 3H:1V slopes of areas to be maintained by mowing. The pool and bank slopes should be shallow enough to allow for dredging and mowing equipment and the pond bottom should have sufficient slope (maximum 2%) to avoid areas of ponded water.

Erosion and bare areas noted during site visits should be backfilled with topsoil, compacted, and re-seeded. These problems, if taken care of promptly, can help to avoid more costly repairs made necessary by continued erosion of un-stabilized soils.

No trees, brush, or other woody vegetation should be allowed to grow within 10 feet of the embankment or side slopes. Any old growth, and its root system, should be completely removed. The excavation should then be filled, compacted, re-seeded, and protected until properly vegetated. Any seedlings or planting should be removed at the earliest opportunity and the disturbed areas properly stabilized.

### **4.4 Structural Materials**

The use of the proper construction materials should be used for all stormwater BMPs. In general, the inlet, outlet, and riser structures of stormwater facilities should be constructed of precast or reinforced concrete because of its greatly extended service life, or as specified by a registered engineer or landscape architect.

**Appendix A**

**Stormwater Service Fee Credit Application**

Application must be completed in full in order to be considered. Place a check next to the credit being certified:

**Residential**

- Ponds
- Residential Green Infrastructure
- Infiltration Practice
- Residential and Industrial Tree Planting
- Streambank Stabilization/Restoration
- Reduced Impervious Surface
- Low Impact Parcel
- Natural Area Preservation
- Watershed Stewardship Programs

**Non-Residential**

- Ponds
- Infiltration Practice
- Residential and Industrial Tree Planting
- Non-Residential Tree Planting
- Streambank Stabilization/Restoration
- Reduced Impervious Surface
- Low Impact Parcel
- Natural Area Preservation
- Watershed Stewardship Programs
- Educational Programs
- Industrial Stormwater Permit Compliance

**I. General Information**

Property Owner Name: \_\_\_\_\_

Property Address: \_\_\_\_\_  
Street

\_\_\_\_\_  
City State Zip

Mailing Address (if different): \_\_\_\_\_  
Street

\_\_\_\_\_  
City State Zip

Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

**II. Property Information**

Account Number: \_\_\_\_\_

Parcel Number: \_\_\_\_\_

Subdivision Name (If Applicable): \_\_\_\_\_

Authorized Contact (If different than owner): \_\_\_\_\_

**III. Documentation**

Please attach all documentation required for the credits checked above. A list of required documentation can be found within the description for each individual credit. Please check documentation below, as appropriate, and attach to this application.

- Appendix B - Permanent Stormwater System Maintenance and Inspection Agreement, including Maintenance and Inspection Plan
- Appendix C – Pond/BMP Inspection Checklist
- A site plan or sketch of the property(ies)
- Hydrology Report or Comparable Documentation
- Stormwater Site Plan
- Stormwater As-Built
- Photographs
- Maintenance and Inspection Plan for Green Infrastructure/ Low Impact Development
- Calculations
- Conservation Easement/Deed Restriction
- Watershed Stewardship Certificate
- Tree Planting Plan
- Tree Maintenance and Protection Plan
- Industrial Stormwater Permit Notice of Intent, Stormwater Pollution Prevention Plan, and Annual Report
- Water Resources Curriculum

**IV. Certification**

I hereby request Columbia County to review this application for a stormwater service fee credit. I further authorize Columbia County to enter the property listed in this application to perform and inspection to confirm the above identified stormwater credits are valid. 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. I agree to provide corrected information should there be any change in the information provided herein.

\_\_\_\_\_  
Signature\*

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\*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.

Contact the Stormwater Utility Operations Department at (706) 855-RAIN (7246) if you have any questions.

**Appendix B**

**Permanent Stormwater System Maintenance and Inspection Agreement**

In accordance with Columbia County Code of Ordinances Section 34-156 which requires the Landowner, its successors and assigns, including any property owner's association, shall adequately maintain privately owned stormwater management/Best Management Practices (BMP) facilities. This includes all pipes and channels built to convey stormwater to the facility, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the stormwater. Adequate maintenance is herein defined as good working condition so that these facilities are performing their design functions. Columbia County requires that the Landowner, its successors and assigns, inspect the stormwater management/BMP facility in accordance with the attached maintenance plan. The purpose of the inspection is to assure safe and proper functioning of the facilities. The inspection shall cover the entire facilities, berms, outlet structure, pond areas, access roads, etc.

The Landowner, its successors and assigns, hereby grant permission to Columbia County, its authorized agents and employees, to enter upon the Property and to inspect the stormwater management/BMP facilities whenever Columbia County deems necessary. The purpose of the inspection is to follow-up on reported deficiencies and/or to respond to citizen complaints. Columbia County shall provide the Landowner, its successors and assigns, copies of the inspection findings and a directive to commence with the repairs if necessary.

The Landowner, its successors and assigns, will perform the work necessary to keep these facilities in good working order as appropriate. A maintenance schedule for the stormwater management/BMP facilities (including sediment removal) shall be outlined on attached maintenance and inspection plan. The owner shall keep written records of any maintenance and/or observations. These records shall be made available to Columbia County for review upon request.

This Agreement imposes no liability of any kind whatsoever on Columbia County and the Landowner agrees to hold Columbia County harmless from any liability in the event the stormwater management/BMP facilities fail to operate properly.

**I accept responsibility for ownership and proper maintenance of the stormwater system (pond, swales, etc.) on the \_\_\_\_\_ site per the approved maintenance plan. I will complete any necessary repairs and/or preventive maintenance procedures in a timely manner to ensure proper functioning as a stormwater management device(s).**

**It is my understanding that if the maintenance plan is deemed to be inadequate, Columbia County may require the plan to be revised and I will abide by any prescribed revisions. I will continue to own and maintain the Stormwater Management/BMP Facility until Columbia County is notified in writing of a transfer in ownership and maintenance responsibility. The notification will include a date for the transfer of responsibility and a letter of acceptance from the new owner.**

**I understand that failure to adhere to the signed maintenance agreement may result in fines of up to \$2,500.00 per day, per violation and /or the institution of a court action.**

\_\_\_\_\_  
Owner/Agent Printed

\_\_\_\_\_  
Date

\_\_\_\_\_  
Owner/Agent Signature

\_\_\_\_\_  
Address

\_\_\_\_\_  
Notary Stamp/Signature/Date

My Commission Expires \_\_\_\_\_

**Appendix C  
Operation and Maintenance Inspection Report for Ponds**

Project Location:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Date:

\_\_\_\_\_

Contact Name:

\_\_\_\_\_

Phone Number:

\_\_\_\_\_

Inspection Items	Assessment <sup>1</sup> A / U / N/A	Comments
<b>1. Wet Ponds (Permanent Pool) <sup>M</sup> (<u>Complete Section for Non-Engineered Residential Ponds</u>)</b>		
a. Undesirable Vegetative Growth		
b. Floating or Floatable Debris		
c. Visible Pollution		
d. High Water Marks on Bank		
e. Shoreline Problems		
f. Sediment Accumulation <i>*(≤20% sediment)</i>		
g. Other (Specify)		
<b>2. Dry Ponds <sup>M</sup></b>		
a. Adequate Vegetation and Ground Cover <i>*(≤18-inches; no woody veg. w/o special provisions; &amp; minimal undesirable species)</i>		
b. Low Flow Channels Clear of Obstruction <i>*(Remove all debris)</i>		
c. Standing Water or Wet Spots <i>*(No standing water allowed)</i>		
d. Sediment and/or Trash Accumulation <i>*(≤20% sediment; remove all debris)</i>		
e. Other (Specify)		
<b>3. Embankment <sup>A</sup> (<u>Complete Section for Non-Engineered Residential Ponds</u>)</b>		
a. Adequate Vegetation and Ground Cover <i>*(≤18-inches; no woody veg. w/o special provisions; &amp; minimal undesirable species)</i>		
b. Embankment Erosion		
c. Embankment Failures <i>*(e.g., cracking, bulging or sliding of dam, leaks on downstream face, visual settlement, horizontal misalignment of top of dam)</i>		
d. Animal Burrows		
e. Other (Specify)		
<b>4. Emergency Spillway <sup>A</sup> (<u>Complete Section for Non-Engineered Residential Ponds</u>)</b>		
a. Clear of Debris <i>*(Remove all debris)</i>		
b. Adequate Vegetation and Ground Cover <i>*(≤18-inches; no woody veg. w/o special provisions; &amp; minimal undesirable species)</i>		

**COLUMBIA COUNTY BOARD OF COMMISSIONERS STORMWATER SERVICE FEE CREDIT MANUAL**

Inspection Items	Assessment <sup>1</sup> A / U / N/A	Comments
c. Riprap Intact		
d. Emergency Spillway Erosion		
e. Other (Specify)		
<b>5. Control Structure<sup>A</sup></b>		
a. Low Flow Orifice, Unrestricted <i>*(Remove all debris; free from sediment)</i>		
b. Trash Rack (Weir/Low Flow), Debris <i>*(Remove all debris)</i>		
c. Excessive Sediment Accumulation Inside Riser		
d. Control Structure Condition		
e. Pipe Condition		
f. Control Valve		
g. Outfall Pipe Flowing		
h. Other (Specify)		
<b>6. Sediment Forebays<sup>M</sup></b>		
a. Sediment Accumulation <i>*(≤50% Design Depth)</i>		
b. Other (Specify)		
<b>7. Condition of Contributing Sources<sup>A,S</sup> (<i>Complete Section for Non-Engineered Residential Ponds</i>)</b>		
a. Riprap Failures		
b. Slope Erosion		
c. Storm Drain Pipes		
d. Endwalls / Headwalls		
e. Other (Specify)		
<b>8. Access<sup>M</sup></b>		
a. Encroachments on Ponds or Easement Area		
b. Maintenance Access		
c. Any Public Hazards (Specify)		
d. Condition of Fence		
e. Other (Specify)		

Note: If maintenance was conducted during inspection, note what was addressed in the “Comments” column.

*\* Designates basic minimum maintenance requirements for stormwater facilities; parentheses and italics.*

<sup>1</sup> Assessment: “A” = Acceptable; “U” = Unacceptable; “N/A” = Not Applicable to this site

<sup>A</sup> Recommended Inspection Frequency: Annual

<sup>M</sup> Recommended Inspection Frequency: Monthly

<sup>S</sup> Recommended Inspection Frequency: After Major Storm

**Summary:**

1. Inspector Remarks & Recommended Action, if any

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2. Overall Condition of Facility (check one): \_\_\_\_\_ Acceptable \_\_\_\_\_ Unacceptable

3. Dates Any Maintenance Must Be Completed By:

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Administrator/Property Owner (Print name and sign)

***Photo Examples for "Stormwater Management Pond" Inspection Form:***



**1. Acceptable Example (Wet Ponds)**



**1A (undesirable trees) & 1B (debris)**



**1B (debris/trash) & 1E (erosion)**



**1A (undesirable-cattails)**



**1A (overgrowth)**



**1E (lack of vegetation / erosion)**



**1E (sed't stains/erosion)**



**2. Acceptable Example (Dry Ponds)**



**2D (trash)**



**2D (debris)**



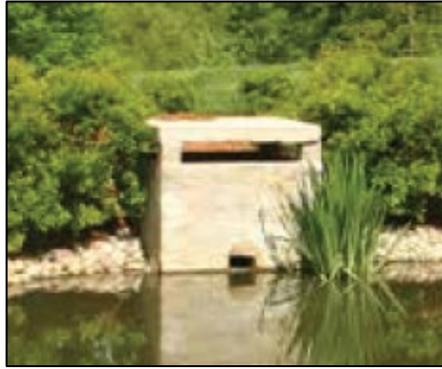
**2C (standing water)**



**3A/4B (lack of vegetation – but overall good embankment/spillway)**



**3B (erosion)**



5. Acceptable Examples (Riser & Principal Spillway)



5A (low-flow orifice blockage)



5B (weir, debris)



5C (sediment in riser)



7B (erosion)



7B/C (slope & pipe erosion)



7C (pipe corrosion)



7E (vegetation blocking flow)

**Appendix D**  
**Engineered Pond Calculation Form**

**Owner's Representative (Engineer):**

Name: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
Street Address: \_\_\_\_\_  
City/State: \_\_\_\_\_ Zip: \_\_\_\_\_ Phone/Fax: \_\_\_\_\_

Georgia Registration Number (PE): \_\_\_\_\_

**Total Site Characteristics** (Attach site plan):

Total Site Area: \_\_\_\_\_ acres  
Total Site Impervious Area: \_\_\_\_\_ acres (sum of the three below)  
Paved Area: \_\_\_\_\_ acres      Roof Area: \_\_\_\_\_ acres  
Other Impervious Area: \_\_\_\_\_ acres  
Explain: \_\_\_\_\_

**Stormwater Pond Information** (attach a separate sheet for each pond):

Facility Parcel ID: \_\_\_\_\_  
Description of Pond: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**HYDROLOGIC CHARACTERISTICS** (Attach drainage area map):

*All values below shall pertain to the drainage area for the pond being analyzed only, not the whole site.*

Method used (check one):       Rational Method       SCS Curve Number method

**Pre-development:**

Drainage Area to Pond: \_\_\_\_\_ acres  
Runoff Coefficient: \_\_\_\_\_ (C Factor or SCS Curve Number)  
Time of Concentration: \_\_\_\_\_ min (5 minutes minimum)  
Rainfall Intensity (Rational Method only): \_\_\_\_\_ in/hr  
Storm Duration (SCS method only): \_\_\_\_\_ hours  
(use same duration for routing calculations shown below)

**Q<sub>PRE</sub>**: \_\_\_\_\_ cfs

**Post-development:**

Drainage Area Impervious Acreage: \_\_\_\_\_ acres (sum of the three below)  
Paved Area: \_\_\_\_\_ acres      Roof Area: \_\_\_\_\_ acres  
Other Impervious Area: \_\_\_\_\_ acres  
Explain: \_\_\_\_\_  
Runoff Coefficient: \_\_\_\_\_ (C Factor or SCS Curve Number)

Time of Concentration: \_\_\_\_\_ min (5 minutes minimum)  
Rainfall Intensity (Rational Method only): \_\_\_\_\_ in/hr  
Storm Length (Rational Method only): \_\_\_\_\_ minutes

**DETENTION/RETENTION FACILITY DATA** (attach all calculations):

Facility Storage Volume at Overflow: \_\_\_\_\_ ft<sup>3</sup>  
Inflow Hydrograph Peak Flow: \_\_\_\_\_ cfs

**Q<sub>POST</sub>:**

Routed Hydrograph Peak Flow: \_\_\_\_\_ cfs  
Flow through outlet: \_\_\_\_\_ cfs  
Flow over emergency spillway: \_\_\_\_\_ cfs

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 pond(s) has (have) been constructed in substantial conformance with pertinent design requirements and that the detention/retention pond(s) 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

---

Date

**Appendix E**

**Annual Certification Form**

Certification must be completed in full in order for the credit to be renewed. Place a check next to the credit being certified:

**Residential**

- Ponds
- Residential Green Infrastructure
- Infiltration Practice
- Residential and Industrial Tree Planting
- Streambank Stabilization/Restoration
- Reduced Impervious Surface
- Low Impact Parcel
- Natural Area Preservation
- Watershed Stewardship Programs

**Non-Residential**

- Ponds
- Infiltration Practice
- Residential and Industrial Tree Planting
- Non-Residential Tree Planting
- Streambank Stabilization/Restoration
- Reduced Impervious Surface
- Low Impact Parcel
- Natural Area Preservation
- Watershed Stewardship Programs
- Educational Programs
- Industrial Stormwater Permit Compliance

**I. General Information**

Property Owner Name: \_\_\_\_\_

Property Address: \_\_\_\_\_  
Street

\_\_\_\_\_  
City State Zip

Mailing Address (if different): \_\_\_\_\_  
Street

\_\_\_\_\_  
City State Zip

Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

**II. Property Information**

Account Number: \_\_\_\_\_

Parcel Number: \_\_\_\_\_

Subdivision Name (If Applicable): \_\_\_\_\_

Authorized Contact (If different than owner): \_\_\_\_\_

**III. Documentation**

Please attach all documentation required for the credits checked above. A list of required documentation can be found within the description for each individual credit. Please check documentation below, as appropriate, and attach to this application.

- |                                                                     |                                                                     |
|---------------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> Appendix C – Pond/BMP Inspection Checklist | <input type="checkbox"/> Water Resources Curriculum                 |
| <input type="checkbox"/> Photographs                                | <input type="checkbox"/> Tree Maintenance Inspection Report         |
| <input type="checkbox"/> Watershed Stewardship Certificate          | <input type="checkbox"/> Industrial Stormwater Permit Annual Report |

**IV. Annual Certification**

I hereby certify that the pond, facility, site condition and/or program for which I have received a stormwater service fee credit is still eligible for credit based on the standards outlined within this manual. I further authorize Columbia County to enter the property listed in this application to perform and inspection to confirm the above identified stormwater credits remain valid. 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. I agree to provide corrected information should there be any change in the information provided herein.

\_\_\_\_\_  
Signature\*

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\*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.

Contact the Stormwater Utility Department at (706) 855-RAIN (7246) if you have any questions.