

# Anne Arundel County's Watershed Protection and Restoration Program STORMWATER REMEDIATION FEE CREDIT POLICY AND GUIDANCE

(Multi-Family, Non-Residential and/or Residential Properties with an Inspection and Maintenance Agreement or Stormwater Remediation Fee Credit Agreement)



July 1, 2019

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#### Section 1 - Introduction

Anne Arundel County has established policies and procedures that provide property owners the opportunity to reduce their Stormwater Remediation Fee. Two Programs are offered:

- Stormwater Remediation Fee Credit (Multi-Family, Non-Residential, and Residential Property with an Inspection and Maintenance Agreement for Private Stormwater Management or a Stormwater Remediation Fee Credit Agreement). This is administered by Watershed Protection and Restoration Program (WPRP).
- Stormwater Property Tax Credit (Residential & Non-Residential/Multi-Family Properties) is an existing program established through County Code § 4-2-316.
   This program is administered by the Watershed Protection and Restoration Program and the Office of Finance.

This credit policy manual document sets forth the process for Multi-Family, Non-Residential, and Residential Property Owners applying for a Stormwater Remediation Fee Credit with an executed "Inspection and Maintenance Agreement" for Private Stormwater Management after the year 2002 or an executed "Stormwater Remediation Fee Credit Agreement" after July 2016. For additional information on the entire Watershed Protection and Restoration Program please see the following web link: (http://www.aacounty.org/departments/public-works/wprp/).

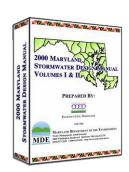


# 1.1 Authority

The Watershed Protection and Restoration Special Revenue Fund was established as a special, nonlapsing fund through Anne Arundel County Code Article 4, Title 11, Section 4-11-119 (Bill No. 2-13; Bill No. 42-13). The revenue paid into the Watershed Protection and Restoration Special Revenue Fund shall be dedicated to and appropriated only for those purposes set forth in the Environment Article, § 4-202.1(h)(4), of the State Code.

The Watershed Protection and Restoration Program was established through Article 13, Title 7 of the Anne Arundel County Code. The purposes of the Watershed Protection and Restoration Program are to support compliance with the requirements of the County's National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System (NPDES MS4) permit, Chesapeake Bay Total Maximum Daily Load and local watershed Total Maximum Daily Load, and stormwater Watershed Implementation Plans through stormwater management practices and stream and wetland restoration activities, and to maintain and Administer the Watershed Protection and Restoration Special Revenue Fund.

This "Stormwater Remediation Fee Credit Policy and Guidance" document was developed in accordance with the Maryland Annotated Code, Environment Article, § 4-202.1(f)(1) and §13-7-107 of the County Code to ensure the necessary framework and procedures in administering a credit system for the Watershed Protection and Restoration Program. The Policy and Guidance outlines the administrative and technical basis for determining the extent of the credits, as well as the conditions required to remain eligible for a stormwater fee credit. The primary objective for the incentive program



is to encourage property owners to proactively manage stormwater on their property by incorporating sustainable stormwater management practices that are used to meet and exceed the requirements found in the "2000 Maryland Stormwater Design Manual, Volume I and II" and Supplements.

The Anne Arundel County Department of Public Works (DPW) is the responsible

party for the day to day operation and administration of the County's Watershed Protection and Restoration Program. DPW implemented the "Stormwater Remediation Fee Credit Policy and Guidance" and encourages all property owners to proactively manage stormwater on their property by incorporating sustainable stormwater management practices that meet or exceed the "2000 Maryland Stormwater Design Manual, Volume I and II" and Supplements.



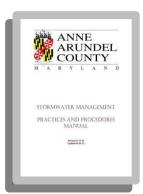
Bioretention Area

### Section 2 – Stormwater Remediation Fee Credit Program

#### 2.1 General

The primary goal of Anne Arundel County's stormwater management program is to maintain after development, as near as possible, the predevelopment runoff characteristics. Stormwater management strategies manage runoff to mitigate adverse water quality and/or quantity impacts associated with development. A comprehensive design strategy for maintaining predevelopment runoff characteristics and protecting natural resources is known as Environmental Site Design or "ESD." ESD is defined as using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources. The integration of these practices is critical to effectively manage stormwater runoff.

Stormwater best management practices (BMP's) include alternative surfaces such as permeable pavement and/or green roofs; filtering practices such as rain gardens, bioretention facilities, and bio-swales; disconnection practices such as cisterns, rain barrels, sheet flow to buffer, and dry wells; as well as other structural practices such as infiltration systems, filtration systems, wetland systems, wet ponds, and/or a combination of these practices to provide appropriate stormwater runoff treatment from the developed areas of a site. For additional information on specific stormwater management practices please see Anne Arundel County's "Stormwater Management



Practices and Procedures Manual," or the "2000 Maryland Stormwater Design Manual, Volume I and II" and Supplements.

Credits are available to multi-family, non-residential, and/or residential property customers who successfully apply for them, and implement and maintain approved Best Management Practices. By law, the maximum credit for any property is 50% of the Stormwater Remediation Fee (§13-7-107 of the County Code).

In the event that the owner transfers the property, the Stormwater Fee Credit Agreement shall no longer be effective and the stormwater remediation fee credit shall no longer apply towards the stormwater remediation fee imposed against the property unless and until a new owner applies for and is approved for the same.

The stormwater remediation fee credit provided for in the credit agreement shall cease to exist in the event that the credit is no longer authorized by State or County law.

#### 2.2 Eligibility and Procedures

This guide pertains only to multi-family properties, non-residential, and residential properties (as defined in §13-7-101 of the County Code). For a multi-family, non-residential, or residential property to be eligible for a credit, the property must be subject to an "Inspection and Maintenance Agreement" for Private Stormwater

Management executed after the year 2002 or an executed "Stormwater Remediation Fee Credit Agreement" after July 01, 2016. A multi-family, non-residential or residential property applicant with either of these agreements are eligible to receive a stormwater fee credit, upon approval from the County, if the applicant received a bill from the County that included a stormwater remediation fee. The credit is applied by tax account to the property containing the stormwater management practice that qualifies for the credit.



management practice that qualifies for the credit.

To receive the stormwater fee credit the applicant must submit a Stormwater Remediation Fee Credit Application (Appendix A or can be found at www.aarivers.org). This application includes the necessary information demonstrating that the stormwater management facilities and/or activities as

detailed in this policy and guidance document are in place and compliance with afore referenced The documents. application summary sheets for multi-family and/or residential properties must be completed and signed by a registered professional accepted by Anne Arundel County (e.g., Professional Engineer, Landscape Architect). The application must be completed and signed by the



property owner, and the signed and executed "Inspection and Maintenance Agreement for Private Stormwater Management" or "Stormwater Remediation Fee Credit Agreement" must be attached.

The County will review and evaluate the stormwater remediation fee credit application and support documentation, and provide a decision on the application within 90 days of receipt.

The Inspection and Maintenance Agreement for Private Stormwater Management can be retrieved either from the Land Records located in the Circuit Court for Anne Arundel County or at <a href="https://mdlandrec.net/main/index.cfm">https://mdlandrec.net/main/index.cfm</a>. Only

residential properties with an "Inspection and Maintenance Agreement for Private Stormwater Management" executed after the year 2002 are eligible to receive up to 50% credit of their stormwater remediation fee. Residential properties that have on-site stormwater management practices but do not have an executed "Inspection and Maintenance Agreement for Private Stormwater Management" may execute a "Stormwater Remediation Fee Credit Agreement and be eligible for up to 50% credit of their stormwater fee, once the credit meets the County requirements and has been approved by the County. The County will review and evaluate the stormwater remediation fee credit application and supporting documentation, and provide a decision on the application within 90 days of receipt.

#### 2.2.1 Application Deadline

An application for a stormwater credit must be submitted by October 1 of the taxable year the applicant wishes to receive credit towards the stormwater remediation fee. A credit application does not stay the requirement to pay the stormwater remediation fee. Payment must be made by the due date on the bill to avoid interest and penalties. If payment has been made and a credit is thereafter granted, a refund will be issued for the current taxable year and the credit will be applied to the next two years of stormwater remediation fees. If payment has not been made before a credit is granted, the bill for the current taxable year will be adjusted and reissued and the credit will be applied to the next two years of stormwater remediation fees. If an application is submitted after October 1, any credits that are granted will be applied toward the stormwater fee for three years beginning in the following taxable year. A successful credit application is valid in perpetuity provided the stormwater practice(s) is/are in good working condition and functioning as designed.

Anne Arundel County will determine that an application package is complete and render a decision of an approval or denial within 90 calendar days of receipt. All application packages are to be sent to Anne Arundel County, Department of Public Works, Watershed Protection and Restoration Program, 2662 Riva Road (MS-7301), Annapolis, Maryland 21401 for review and approval.



#### 2.2.2 Agricultural Properties

Agricultural properties are viewed as either residential or non-residential parcels under the Watershed Protection and Restoration Special Revenue Fund Program. To be considered a residential parcel, the property must be in a residential zone, and a permanent dwelling must be given an occupancy permit by the County; otherwise, the agricultural parcel is viewed as a non-residential parcel.

If the agricultural property is considered a residential parcel it is eligible for stormwater remediation fee credit if there is an executed "Inspection and Maintenance Agreement for Private Stormwater Management" or executed "Stormwater Remediation Fee Credit Agreement", the Property Tax Credit Program, and/or rebate program that may become available for residential properties. If the agricultural property is considered a non-residential parcel it is eligible for the Stormwater Remediation Fee Credit Program as well as the Property Tax Credit Program.

# 2.2.3 Other Properties

Anne Arundel County understands that certain properties are regulated through other stormwater permits such as a National Pollutant Discharge Elimination System (NPDES) Permit. These NPDES permits must include stormwater management controls or account for existing site systems, facilities, services, or activities that reduce the quantity or improve the quality of stormwater discharged from the property. These properties are also eligible for

Stormwater discharged from the property. Stormwater Remediation Fee Credit not to exceed 50% of the assessed stormwater remediation fee. All eligible properties that have been issued an NPDES permit (e.g., Surface Water Individual Permits, General Permit for Stormwater Discharges Associated with Industrial Activities, General Permit for Stormwater Associated with Construction Activity, Industrial General Permits for Marinas) must include stormwater management



controls. For Marina properties covered under an NPDES permit requesting a stormwater fee credit, a "credit application" found in Appendix A of the Stormwater Remediation Fee Credit and Policy Guidance must be submitted to Anne Arundel County in order to receive a 25% reduction in the stormwater remediation fee. As part of that documentation the applicant must submit a copy of the letter from the Maryland Department of the Environment that includes registration number and acceptance of their application for permit coverage. A Marina property in good standing with the Maryland Department of Natural Resources for the Clean Marina Initiative may be entitled to a total reduction not to exceed 50% of the stormwater remediation fee by providing documentation that

the Marina is a certified Clean Marina.

#### 2.3 Allowable Credits

By law, the maximum available stormwater fee credit is 50% of the stormwater remediation fee for a property. This may be achieved through the use of one or more eligible practices or activities under the stormwater credit policy. To receive the full 50% credit towards the assessed stormwater

remediation fee the entire impervious surface area of the property must be treated using stormwater management practices that are designed, approved, constructed, and maintained in accordance with the County Standards, Stormwater Management Practices and Procedures Manual, and/or 2000 Maryland Stormwater Design Manual, Volumes I and II, and Supplements.



Stormwater credits are issued initially for a 3-

yr period and in 3-yr intervals thereafter in perpetuity provided the practices are in good working condition and performing as designed, and the applicant is abiding by either the agreement set forth in the "Inspection and Maintenance Agreement for Private Stormwater Management" or the "Stormwater Remediation Fee Credit Agreement". Practices must be operated and maintained in accordance with the most recent credit application.

The options eligible for receipt of a stormwater fee credit are as follow:

#### **Non-Residential and Multi-Family**

- For Multi-Family and/or Non-Residential Properties: Documentation that eligible stormwater management practices on the subject property site have been designed and/or retrofitted, approved, constructed, inspected, and maintained in accordance with County Standards, Stormwater Management Practices and Procedures Manual, and/or the "2000 Maryland Stormwater Design Manual, Volume I and II" and Supplements. In accordance with the stormwater management regulation (COMAR 26.17.02) and §16-4-201 of the County Code all new development must implement environmental site design (ESD) to the maximum extent practicable (MEP).
- Anne Arundel County understands that certain properties are regulated through other stormwater permits such as National Pollutant Discharge Elimination System (NPDES) Permit. These NPDES permits must include stormwater management controls or account for existing site systems, facilities,

services, or activities that reduce the quantity or improve the quality of stormwater discharged from the property. These properties are also eligible for Stormwater Remediation Fee Credit not to exceed 50% of the assessed stormwater remediation fee. All eligible properties that have been issued an NPDES permit (e.g., Surface Water Individual Permits, General Permit for Stormwater Discharges Associated with Industrial Activities, General Permit for Stormwater Associated with Construction Activity, Industrial General Permits for Marinas) must include stormwater management controls.

- For Marina properties covered under an NPDES permit requesting a stormwater fee credit, a "credit application" found in Appendix A of the Stormwater Remediation Fee Credit and Policy Guidance must be submitted to Anne Arundel County in order to receive a 25% reduction in the stormwater remediation fee. As part of that documentation the applicant must submit a copy of the letter from the Maryland Department of the Environment that includes registration number and acceptance of their application for permit coverage. A Marina property in good standing with the Maryland Department of Natural Resources for the Clean Marina Initiative may be entitled to a total reduction not to exceed 50% of the stormwater remediation fee by providing documentation that the Marina is a certified Clean Marina.
- Partial credit can be achieved by demonstrating and computing the fractional value of the treated impervious area to the total impervious area. An example of partial credit for commercial development, redevelopment, and retrofit projects are as follows:

Partial Credit Examples	Site Impervious Area (Acres)	Impervious Area Treated (Acres) <sup>1</sup>	Calculated Credit (Fractional value of treated impervious area to total impervious area x maximum credit)	Allowable Credit Reduction % (Up to a maximum 50%)
Commercial Development	10.0	7.5	(7.5/10) x 0.5 = 0.375	37.5%
Redevelopment of a Mall (50% Treatment Maximum Requirement)	20.0	5.0	((5/20)/0.5)) x 0.5 = 0.25	25%
Retrofit of 1985 Industrial Complex	50.0	25.0	(25/50) x 0.5 = 0.25	25%

<sup>&</sup>lt;sup>1</sup> Assumes that the practice provides full WQv (i.,e 1 inch) treatment. The credit would be lowered proportional to the actual WQv treated in relation to the full WQv.

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The applicant should provide documentation of the site's impervious area being treated by using stormwater best management practices designed, constructed, inspected, and maintained in accordance with County Standards, Stormwater Management Practices and Procedures Manual, and/or the "2000 Maryland Stormwater Design Manual, Volume I and II" and Supplements.



Application packages must include appropriate documentation to verify a credit request such as an Application Form, Summary Sheet Form for each stormwater best management practice, Signature Sheet, As-built Construction Plans, County Approved Stormwater Management Report, Inspection and Maintenance Records, Identified BMP Type, Location of BMPs, Drainage Area Maps, etc. (See <a href="https://www.aarivers.org">www.aarivers.org</a> for additional information and checklists). Anne Arundel County will determine that an application package is complete and render a decision of an approval or denial within 90 calendar days of receipt.

#### Residential

- For Residential Properties: Documentation that eligible stormwater management practices on the subject property site have been installed to provide treatment of all impervious surfaces within the identified parcel/property. These stormwater management practices follow County Standards, Stormwater Management Practices and Procedures Manual, and/or the "2000 Maryland Stormwater Design Manual, Volume I and II" and Supplements and/or promote environmental site design (ESD) to the maximum extent practicable (MEP).
- Partial credit can be achieved by demonstrating and computing the fractional value of the treated impervious area to the total impervious area. An example of partial credit for residential properties is as follows:

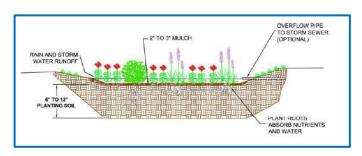
Partial Credit Examples	Site Impervious Area (Square Feet)	Impervious Area Treated (Square Feet) <sup>2</sup>	Calculated Credit (Fractional value of treated impervious area to total impervious area x maximum credit)	Allowable Credit Reduction % (Up to a maximum 50%)
Residential ½ acre Lot	2,940	2,205	(2205/2940) x 0.5 = 0.375	37.5%
Residential 5 acre Lot	10,000	5,000	(5000/10000) x 0.5 = 0.25	25%

<sup>&</sup>lt;sup>2</sup> Assumes that the practice provides full WQv (i.,e 1 inch) treatment. The credit would be lowered proportional to the actual WQv treated in relation to the full WQv.

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Documentation of the site's impervious area being treated by using stormwater best management practices following the County Standards, Stormwater Management

Practices and Procedures Manual, and/or the "2000 Maryland Stormwater Design Manual, Volume I and II" and Supplements. Application packages must include appropriate documentation to verify a credit request such as an Application Form, Photo Documentation for each Stormwater Best Management Practice, Identification of the BMP Type,



Location of BMPs, Signature Sheet, Sketch and/or Drawing/Plan, and/or an Approved Stormwater Management Construction Plan/Report by Anne Arundel County and an executed "Inspection and Maintenance Agreement for Private Stormwater Management" or "Stormwater Remediation Fee Credit Agreement" (See <a href="http://www.aacounty.org/departments/public-works/wprp/">http://www.aacounty.org/departments/public-works/wprp/</a> for additional information and checklists). Anne Arundel County will determine that an application package is complete and render a decision of an approval or denial within 90 calendar days of receipt. All application packages are to be sent to Anne Arundel County, Department of Public Works, Watershed Protection and Restoration Program, 2662 Riva Road (MS-7301), Annapolis, Maryland 21401 for review and approval.

#### 2.4 Renewal

Approved Credits are valid up to a period of three years. To continue to receive credit, functional verification of the BMP(s) is required by the end of the second of the three year period.

A renewal application is **NOT** required to be submitted to the County, except for NPDES Permit and Stormwater Management Practices (Marina, Industrial properties). Stormwater Remediation credit Must Include the following:

- A completed credit application.
- Documentation from Maryland Department of Environment (MDE) to verify coverage under Maryland General Permit for Discharges for Marinas.
- Documentation from Maryland Department of Natural Resources to verify Clean Marina participant in good standing.
- Stormwater Pollution Prevention Plan.

The applicant will continue to receive credit provided the applicant is abiding by either the agreement set forth in the "Inspection and Maintenance Agreement for Private Stormwater Management" or the "Stormwater Remediation Fee Credit Agreement". Practices must be operated and maintained in accordance with the

most recent credit application. The applicant is responsible for the continued maintenance and repair of the stormwater practice, maintaining inspection and maintenance records, and providing access to Anne Arundel County for inspections and verification.

# Section 3 - Inspection, Maintenance, and Enforcement for Credits

#### 3.1 Inspection

Each applicant that has received a credit for a stormwater management practice has the responsibility to inspect and repair their practices to ensure that they are functioning as designed. In addition, the County reserves the right to inspect at any time stormwater management practices applied toward receiving a credit. Those inspections will be in accordance with an executed Inspection and Maintenance Agreement for Private Stormwater Management or credit agreement. If the field inspection proves that any of the documentation submitted for continuation of the credit or reduction of fee is not accurate, the practice is not maintained, or if the practice is not operating as designed, the credit will be cancelled for that parcel and associated bill. Inspections will be performed at the discretion of the County to assure that a practice is operating and functioning as designed. Applicants that receive credit and have a NPDES permit must maintain regular inspection and maintenance documentation per conditions of the applicant's NPDES permit.

#### 3.2 Maintenance

All stormwater management practices shall be maintained in accordance with approved design plans and maintenance agreements. Plans and maintenance agreements must follow County Standards, Stormwater Management Practices and Procedures Manual, and/or the "2000 Maryland Stormwater Design Manual, Volume I and II" and Supplements.

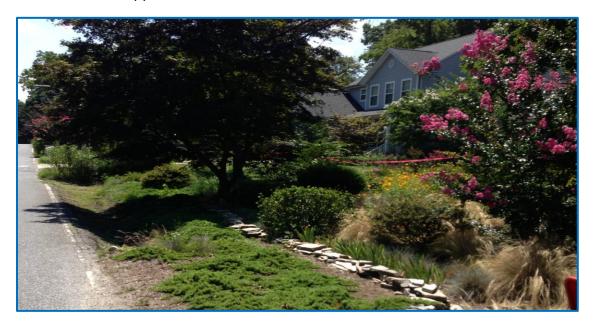
As a condition of receiving a stormwater fee credit, an applicant agrees to allow

the County unrestricted access to inspect practice(s) associated with stormwater fee credit. The intent of the inspections will be to verify that the practice is being maintained according to the operation and maintenance agreement and that the practice is operating as designed.



#### 3.3 Enforcement

Inspections and documentation are the primary methods employed to monitor approved credits. Failure to maintain and operate the stormwater management practice in strict compliance with County Approved Plans, Maintenance Agreements, County Standards, Stormwater Management Practices and Procedures Manual, and/or the "2000 Maryland Stormwater Design Manual, Volume I and II" and Supplements will result in the loss of the credit.



#### **References and Additional Publications**

Anne Arundel County Code §13-7-107: "DPW - Watershed Protection and Restoration Program"

http://www.aacounty.org/CountyCode/index.cfm

# Anne Arundel County Department of Public Works, "Design Manual and Standards Specifications"

http://www.aacounty.org/DPW/Engineering/DesignManual.cfm

### **Anne Arundel County "Stormwater Management Practices and Procedures** Manual"

http://www.aacounty.org/PlanZone/Resources/Practices\_Procedures\_Manual.pdf

Anne Arundel County "Inspection and Maintenance Agreement for Private Stormwater Management. http://dev.aacounty.org/departments/inspections-andpermits/permit-center/forms-andpublications/Resources/inspectionandmaintenanceagreement.pdf

#### Stormwater Fee Credit

http://www.aacounty.org/departments/public-works/wprp/wprf-creditagreement/index.html

# **Environment Article 4-202.1 Stormwater Management – Watershed Protection** and Restoration Program

http://mgaleg.maryland.gov/webmga/frmStatutesText.aspx?article=gen&section= 4-202.1&ext=html&session=2015RS&tab=subject5

# "2000 Maryland Stormwater Design Manual, Volume I and II," plus Supplements http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/M ary

landStormwaterDesignManual/Pages/Programs/WaterPrograms/SedimentandSto rm water/stormwater\_design/index.aspx

# "Chesapeake Bay Foundation Rainscaping"

http://www.chesapeakeecologycenter.org/index.asp?Type=B BASIC&SEC={BAE 4FC0D-0CD9-4489-8247-4C1050587B0E}

# "Alliance for the Chesapeake Bay"

https://allianceforthebay.org/2011/05/rain-gardens-a-greenerapproach-to- landscaping/

# "Department of Natural Resources Environmental Design"

http://www.dnr.state.md.us/ed/rainbarrel.html



#### DEPARTMENT OF PUBLIC WORKS STORMWATER REMEDIATION FEE CREDIT APPLICATION

SINGLE FAMILY RESIDENTIAL PROPERTY

(Please Print or Type)

#### **Notes:**

- The following information must be completed for each residential property applying for a Stormwater Remediation Fee Credit with an executed "Inspection and Maintenance Agreement" for Private Stormwater Management (e.g., BMPs) after the year 2002 or an executed "Stormwater Remediation Fee Credit Agreement" after July 2016.
- A Stormwater BMP Summary Sheet must be completed if a County grading permit was not issued.
- By Law, the maximum credit for any property is 50% of the Stormwater Remediation Fee.
- Approved Credits are valid up to a period of three years. To continue to receive credit, functional verification of the BMP(s) is required by the end of the second of the three year period. A renewal application is **NOT** required to be submitted to the County.

#### **OWNER INFORMATION:**

NAME:				
	(First)	(Middle)	(Last)	
PHONE:	· · ·	(Work/Home)		(Cell)
EMAIL:				
STREET A	ADDRESS:			
CITY:		STATE:	ZIP CODE:	
PROPER 7	ΓΥ INFORMATION:			
STREET A	ADDRESS:			
CITY:		STATE:	ZIP CODE:	
PARCEL N	NO./TAX ACCOUNT NO			
Please ensu	re the following information	n is included:		
	COMPLETED APPLIC	ATION		
	ATTACH A COMPLET STORMWATER BMP S	ED SINGLE FAMILY RESID SUMMARY SHEET	ENTIAL PROPERTY	
	PHOTOGRAPHS OF BI	MP AND DRINAGE AREA		
	PRIVATE STORMWAT "STORMWATER REM	ΓER MANAGEMENT <mark>OR</mark> ΑΊ EDIATION FEE CREDIT AGI	REEMENT"	FOR
Ш	PRINT, SIGN CREDIT A DOCUMENTATION TO	APPLICATION, AND SUBM D:	TT SUPPORTING	

Anne Arundel County,
Department of Public Works,
Watershed Protection and Restoration Program,
2662 Riva Road (MS-7301),
Annapolis, Maryland 21401

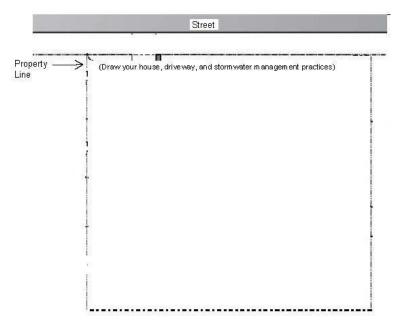
For additional information see the Anne Arundel County Web Site:

http://www.aarivers.org

I. Stormwater Management Applicable Credit (See "Credit Policy and Guidance"):

#### BRIEF DESCRIPTION OF STORMATER BMP(S) AT EACH LOCATION ON THE PROPERTY

On the site plan/sketch please show the approximate layout of your home, driveway and each BMP as well as attach a photo of each BMP documenting its installation or include approved site plan/drawing, if available.



**II. Authorization of Credit Application**: By signing this form, you certify that (1) you have read and understand the Stormwater Remediation Credit Policy and Guidance requirements; (2) the information provided on this form is complete and factual; (3) the stormwater management system(s) on your property have been maintained and are in proper working order; and (4) you grant the County permission to conduct site inspections of the stormwater management practices included as part of this application package.

Print Ov	ner's Name Owner's Signature		Date
AA County Use Only	□ APPROVED	% CREDIT Storm_ID(	s).:
	☐ DENIED- REASON	Credit ID N	No.:
reviewed and	_	dicate the credit application and attac h Anne Arundel County Code and re- and Guidance."	
Credit Review	er	Date	
	(Print	Name and Initial)	
Manager		Date _	



### DEPARTMENT OF PUBLIC WORKS STORMWATER REMEDIATION FEE CREDIT

SINGLE FAMILY RESIDENTIAL PROPERTY STORMWATER BMP SUMMARY SHEET

(Please Print or Type)

**Notes:** The following information must be completed for each property applying for a Stormwater Remediation Fee Credit if a County grading permit was NOT issued for the construction of the BMP. Please fill out one (1) sheet for each BMP installed.

### Where a County Grading Permit is NOT Involved:

A = Drainage area (ac); One acre = 43,560 sq. ft

Where: RV = Runoff coefficient [storm runoff (in)/storm rainfall (in)], unitless

IA = Impervious fraction [impervious portion of drainage area (ac)/ drainage area (ac)], unitless.

Name of Property Owner		
Storm ID	LEAVE BLANK (to be assigned	by the County)
BMP Type & Category (See Note 2)		
BMP Location (Address for each activity)		
Project Mapping Coordinates (latitude/longitude; <a href="http://www.latlong.net/">http://www.latlong.net/</a> )		
Foot Print/Surface Area of the BMP (in ac or sq. ft.)		
BMP Drainage Area (in acres or sq. ft.)		
BMP Impervious Area Treated (in acres or sq. ft.)		
WQv Provided (ft3) <sup>1</sup>		
Completion Date (i.e., as-built date)		
Notes:  1. Use Separate form for each BMP installed 2. Use attached MDE BMP Code & Categor 3. Applicant shall ensure that the proposed  This sheet was completed by:		nd can be sustained onsite.
Print Name	Signature	Date
<sup>1</sup> WQv = (3630 * RD * Rv * A) Where: WQv = Volume of runoff that must be or RD = Design storm rainfall depth (in) ( use 1.0" in	=	

Version 1.0/2016

RV = (0.05 + 0.9 \* IA)

# **MDE Approved BMP Classifications**

MDE Approved BMP Classifications				
Category	Code	Code Description		
ESD BMPs				
Alternative Surfaces (A)				
Е	AGRE	Green Roof - Extensive		
Е	AGRI	Green Roof - Intensive		
E	APRP	Permeable Pavements		
Е	ARTF	Reinforced Turf		
Nonstructural				
Techniques (N)				
E	NDRR	Disconnection of Rooftop Runoff		
E	NDNR	Disconnection of Non-Rooftop Runoff		
Е	NSCA	Sheetflow to Conservation Areas		
Micro-Scale Practices				
(M)				
Е	MRWH	Rainwater Harversting		
Е	MSGW	Submerged Gravel Wetlands		
E	MILS	Landscape Infiltration		
Е	MIBR	Infiltration Berms		
Е	MIDW	Dry Wells		
Е	MMBR	Micro-Bioretention		
E	MRNG	Rain Gardens		
E	MSWG	Grass Swale		
E	MSWW	Wet Swale		
Е	MSWB	Bio-Swale		
Е	MENF	Enhanced Filters		
Structural BMPs				
Ponds (P)				
S	PWED	Extended Detention Structure, Wet		
S	PWET	Retention Pond (Wet Pond)		
S	PMPS	Multiple Pond System		
S	PPKT	Pocket Pond		
S	PMED	Micropool Extended Detention Pond		
Wetlands (W)				
S	WSHW	Shallow Marsh		
S	WEDW	ED - Wetland		
S	WPWS	Wet Pond - Wetland		
S	WPKT	Pocket Wetland		
	1	1		

Infiltration (I)		
S	IBAS	Infiltration Basin
S	ITRN	Infiltration Trench
Filtering Systems (F)		
S	FBIO	Bioretention
S	FSND	Sand Filter
S	FUND	Underground Filter
S	FPER	Perimeter (Sand) Filter
S	FORG	Organic Filter (Peat Filter
S	FBIO	Bioretention
Open Channels (O)		
S	ODSW	Dry Swale
S	OWSW	Wet Swale
Other Practrices (X)		
S	XDPD	Detention Structure (Dry Pond)
S	XDED	Extended Detention Structure, Dry
S	XFLD	Flood Management Area
S	XOGS	Oil Grit Separator
S	XOTH	Other

# **MDE Approved Alternative BMP Classifications**

Category	Code	Code Description
Alt. BMPs (A)		
А	MSS	Mechanical Street Sweeping
А	VSS	Regenerative/Vacuum Street Sweeping
Α	IMPP	Impervious Surface Elimination (to pervious)
А	IMPF	Impervious Surface Elimination (to forest)
А	FPU	Planting Trees or Forestation on Pervious Urban
А	СВС	Catch Basin Cleaning
А	SDV	Storm Drain Vacuuming
А	STRE	Stream Restoration
А	OUT	Outfall Stabilization
А	SPSC	Regenerative Step Pool Conveyance
А	SHST	Shoreline Management
А	SEPP	Septic Pumping
А	SEPD	Septic Denitrification
А	SEPC	Septic Connections to WWTP

**Source:** Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated Guidance for National Pollution Discharge Elimination System Stormwater Permits August, 2014



### DEPARTMENT OF PUBLIC WORKS STORMWATER REMEDIATION FEE CREDIT APPLICATION

MULTI-FAMILY & NON-RESIDENTIAL PROPERTY
(Please Print or Type)

#### **Notes:**

- The following information must be completed for all properties applying for a Stormwater Remediation Fee Credit.
- Multiple BMPs may be included in the credit assessment, but must be located and providing impervious area treatment for the property. BMP(s) shall have an executed "Inspection and Maintenance Agreement" for Private Stormwater Management after the year 2002 or an executed "Stormwater Remediation Fee Credit Agreement" after July 2016.
- By Law, the maximum credit for any property is 50% of the Stormwater Remediation Fee.
- Approved Credits are valid up to a period of three years. To continue to receive credit, functional verification of the BMP(s) is required by the end of the second of the three year period. A renewal application is **NOT** required to be submitted to the County.

# **OWNER INFORMATION:**

NAME:				
	(First)	(Middle)	(Last)	
PHONE:		(Office)		(Cell)
EMAIL:				
STREET ADD	RESS:			
CITY:		STATE:	ZIP CODE:	
OWNER'S R	EPRESENTATIVE (QU	ALIFIED PROFESSION	AL):	
NAME:				
	(First)	(Middle)	, , ,	
		(Office)		(Cell)
EMAIL:				
NAME OF CC	OMPANY:			
STREET ADD	ORESS:			
CITY:		STATE:	ZIP CODE:	
PROFESSION	AL REGISTRATION TY	PE AND LICENSE NO. (F	PE;01313):	
<b>PROPERTY</b>	INFORMATION:			
BUSINESS NA	AME (IF APPLICABLE):			
STREET ADD	RESS:			
		STATE:		
PARCEL NO.	TAX ACCOUNT NO.:			
PROPERTY S	IZE (ACRES):	IMPERVIOUS S	URFACE (ACRES):	
BRIEF DESCI	RIPTION OF STORMATE	ER BMP(S) AT EACH LO	CATION ON THE PROP	ERTY

I.	Stormwater Management Applicable Credit (See "Credit Policy and Guidance"):					
	■ DEVELOPMENT CREDIT (UP TO 50% FEE REDUCTION)*					
	■ REDEVELOPMENT CREDIT (UP TO 50% REDUCTION)*					
	☐ Providing 50% impervious surface reduction, or					
	☐ Treatment of 50% of existing impervious surface, or					
	Combination of impervious surface reduction and treatment, or					
	Other					
	■ RETROFIT EXISTING BMP (UP TO 50% REDUCTION)*					
	■ CONSTRUCTION OF A NEW BMP (UP TO 50% REDUCTION)*					
	(*Attach a completed Stormwater BMP Summary Sheet(s) and an executed "Inspection and Maintenance Agreement" for Private Stormwater Management (e.g., BMPs) after the year 2002 or an executed "Stormwater Remediation Fee Credit Agreement" after 2016. All stormwater BMPs must be designed and/or retrofitted, approved, constructed, inspected and maintained in accordance with County Standards, Stormwater Management Practices and Procedures Manual, and/or the "2000 Maryland Stormwater Design Manual, Volume I and II" and Supplements.)					
	The attached plan(s) should clearly show the location, topography, and drainage basins for each BMP.					
II.	Authorization of Credit Application: By signing this form, you certify that (1) you have read and understand the Stormwater Remediation Credit Policy and Guidance requirements; (2) the information provided on this form is complete and factual; (3) the stormwater management system(s) on your property have been maintained and are in proper working order; and (4) you grant the County permission to conduct site inspections of the stormwater management practices included as part of this application package.					
	Print Owner's Name Owner's Signature Date					
P	Please return completed form to: Anne Arundel County, Department of Public Works, Watershed Protection and Restoration Program, 2662 Riva Road (MS-7301), Annapolis, Maryland 21401. For dditional information see the Anne Arundel County Web Site: <a href="http://www.aarivers.org">http://www.aarivers.org</a> .					
	AA County Use APPROVED% CREDIT Storm ID(s):					
	DENIED- REASON Credit ID No.:					
	The initials and signatures below indicate the credit application and attachments have been reviewed and are in compliance with Anne Arundel County Code and regulations as well as in accordance with the "Credit Policy and Guidance."					
li i	Credit ReviewerDate					
	Credit ReviewerDate					
	Credit ReviewerDate					
	Credit ReviewerDate					



# DEPARTMENT OF PUBLIC WORKS STORMWATER BEST MANAGEMENT PRACTICES (BMPs) SUMMARY SHEET

# MULTI-FAMILY & NON-RESIDENTIAL PROPERTY

(Please Print or Type)

				Summa BMP) Identification No			
assessment of conditions or property, sep	the exi inspect arate S	sting BMP desi ted the BMP sho tormwater BMI	gn or o ould co P Sum	Engineer, Landscape designed the new BMP omplete this form. If n mary Sheets must be c rite in the type of BMP	or doc nultiple omplet	cumented the BMPs exis	e as-built t on a single
BMP Drainage P <sub>E</sub> ESD <sub>v</sub> Per BMP CN, Date Approve See attached s	ea: e Area: _inches Q1 d: heets fo	S, Q <sub>E</sub> ii	acres nches, feet, Q <sub>2</sub> rmatio	Total Parcel Impervious A BMP DA Impervious A Total ESD <sub>V</sub> Required or Wqv & C cfs, Q_{10} Date Construction Com n (Stormwater Design R orts, etc.):	Cpvcr	cul Tc: fs, Q <sub>100</sub> (As-built):	acres bic feet; cfs Plans, As-built
Type of BMP	STOR REDE RETR	MWATER BM VELOPMENT OFIT BMP PR ENVIRONME	BMP ACTI	PRACTICE			
	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	A-1 Permeable A-2 Green Roo A-3 Reinforce ructural and scale Practices N-1 Disconnect Rooftop Runof N-2 Disconnect Rooftop Runof N-3 Sheetflow Conservation A	of Turf tion of tion of ff to			M-1 Rainw (Cisterns a M-2 Subm Wetlands M-3 Lands M-4 Infiltr M-5 Dry W M-6 Micro M-7 Rain (	ices (Continued) vater Harvesting and Rain Barrels) erged Gravel scape Infiltration ration Berms WellsBioretention Gardens s (Bio-swales,
V : 10/2016						M-9 Enhai	nced Filters

	STRUCTURAL BMPs						
Infiltr	ration	Wet	land Practices				
	I-1 Infiltration Trench		W-1 Shallow Wetland				
	I-2 Infiltration Basin		W-2 Extended Detention Wetland				
Filtra	tion		W-3 Pond/Wetland				
	F-1 Surface Sand Filter		W-4 Pocket Wetland				
	F-2 Underground Sand Filter		Ponds				
	F-3 Perimeter Sand	Wet	<b>Ponds Practices</b>				
	Filter		P-1 Micropool Extended				
	F-4 Organic Filter		Detention				
	F-5 Pocket Sand Filter	Ц	P-2 Wet Pond				
	F-6 Bioretention		P-3 Wet Extended Detention Pond				
Open	<b>Channel Practices</b>		P-4 Multiple Pond				
	O-1 Dry Swale		P-5 Pocket Pond				
	O-2 Wet Swale						
Other							
	O-1 Hydrodynamic Structure (e.	g., Stormceptor, B	ay Saver, etc.)				
	O-2 Underground Extended Deta	ention					
	0-3						
the BMP type, Drain Stormwater Manage Sheets documenting	propriate documentation demonstrate Area Maps showing location of ment Report, Inspection and Maint % of Treatment, etc.).	ating request such FBMPs, As-built C enance Reports and	as additional information on onstruction Plans, Approved d Checklists, Summary				

Type of BMP (Continued)

# (Only One Signature Sheet is required per Application)

A Stormwater BMP Summary must be included with this application for each site BMP. Assign an ID to each BMP included in the credit application. Attach a site plan showing the approximate layout of each BMP with its ID clearly shown. The attached plan(s) should clearly show the location, topography, and drainage basins for each BMP. Also include other appropriate documentation (e.g., Documentation of Anne Arundel County Approval, Stormwater Management Report, As-built Construction Drawings, Inspection and Maintenance Reports and Checklists, etc.)

% (UP TO 50%)	TOTAL PERCENTAGE OF C. PARCEL	REDIT REQUESTED PER
	uments were prepared or approved ander the laws of State of Maryland.	
License No.:	Expiration Date:	
Qualified Professional's Printed	Name and Signature	Date
designed, constructed, inspected Arundel County Code, County S Manual, Design Manual, and/or Design Manual, Volumes I and	ater best management practices (BM) on a triennial basis, and are mainta Standards, Stormwater Management the Maryland Department of the Er II, and Supplements" as well as gradormwater management practices incommunication.	tined in accordance with Anne t Practices and Procedures avironment's 2000 Maryland and the County permission to
Owner's Printed Name	Owner's Signature	Date
-	to: Anne Arundel County, Depa Restoration Program, 2662 I	· · · · · · · · · · · · · · · · · · ·



# DEPARTMENT OF PUBLIC WORKS STORMWATER REMEDIATION FEE CREDIT APPLICATION

PROPERTIES WITH AN NPDES PERMIT AND STORMWATER
MANAGEMENT PRACTICES (MARINAS, INDUSTRIAL
PROPERTIES)

(Please Print or Type)

The following information must be completed for each property with an *NPDES Permit* applying for a Stormwater Remediation Fee Credit.

(Check the A	Appropriate Box(s))			
	INITIAL APPLICA	ATION SUBMITTAL		
	RECERTIFICATION (Stormwater Remede	ON APPLICATION liation Fee ID No.:	_)	
OWNER IN	FORMATION:			
NAME:				
	(First)	(Middle)	(Last)	
		(Office)		(Cell)
EMAIL:				
CITY:	DICESS.	STATE	·	
PROPERTY	INFORMATION:			
	DRESS:			
CITY:	DKESS	STATE	 :	
ZIP CODE:_	PA	RCEL NO./TAX ACCOUNT NO	D.:	
STEP 1:		CATION AND ATTACH APPR TO SUPPORT CREDIT APPL	<del></del>	
STEP 2:	CHECK DOCUMEN	TS INCLUDED IN THIS APP	LICATION:	
		DES PERMIT ACCEPTANCE ATION NUMBER;	LETTER WITH	
	☐ STORMWA	TER POLLUTION PREVENT	TION PLAN;	
	☐ SITE PLAN	SHOWING LOCATION OF E	BMPS;	
		N AND MAINTENANCE REI	PORTS;	
	☐ DNR CERT	IFICATION OF CLEAN MAR	INA INITIATIVE;	
	☐ OTHER		,	
	<del></del>			

# STEP 3: PRINT, SIGN CREDIT APPLICATION, AND SUBMIT SUPPORTING DOCUMENTATION TO:

Anne Arundel County,
Department of Public Works,
Watershed Protection and Restoration Program,
2662 Riva Road (MS7310),
Annapolis, Maryland 21401

For additional information see the Anne Arundel Count Web Site:

http://www.aacounty.org/DPW/WPRF.cfm

		TOTAL PERCENTAGE OF CREDIT REPARCEL  T FOR MARINA ACTIVITY; T AND CLEAN MARINA INITIATIVE CR	
I.	understand the Stormwater Reminformation provided on this for system(s) on your property have	tion: By signing this form, you certify that (ediation Credit Policy and Guidance require m is complete and factual; (3) the stormwate been maintained and are in proper working conduct site inspections of the stormwater m on package.	ements; (2) the er management order; and (4) you
	Print Owner's Name	Owner's Signature	Date
AA C	County Use Only	Stormwater Remediation Fee ID No	D.:
AA C	The initials and signatures belo	w indicate the credit application and attachre with Anne Arundel County Code and regu	nents have been
AA C	The initials and signatures belo reviewed and are in compliance	w indicate the credit application and attachre with Anne Arundel County Code and regu	nents have been
AA C	The initials and signatures belo reviewed and are in compliance accordance with the "Credit Po	w indicate the credit application and attachre with Anne Arundel County Code and regulicy and Guidance."  TOTAL PERCENTAGE OF CREDIT GRANTED	nents have been



# DEPARTMENT OF PUBLIC WORKS STORMWATER REMEDIATION FEE CREDIT INSPECTION AND MAINTENANCE CHECKLIST FORMS

Pond Maintenance Inspection Form

General Information		Facility Type
Facility name:	Land Use:	P-1 micropool extended detention pond
Address:	Inspector:	P-2 wet pond
	As-Built:	P-3 wet extended detention pond
	Date:	P-4 multiple pond system pond
Map Book:	Weather:	P-5 pocket pond

I. Structure Access	Р	roble	m	Sche	dule		
ltem	Υ	N	n/a	Routine	Urgent	Comments	
a. Access Road							
Surface repairs needed			2				
2. Curb repairs needed							
3. Rills/gullies (road bed/adjacent slopes)							
4. Discharge points inadequate							
5. Earth slumps							
6. Trees, brush, woody vegetation							
7. Mowing needed							
b. Fencing	8						
1. Fence > 4' at outlet							
Lock(s) missing on perimeter gate(s)							
3. Fence repairs needed							
4. Gate repairs needed							
c. Riser/pond drain	c. Riser/pond drain						
1. Inaccessible							
2. Pond drain lock(s) missing							
3. Railing > 4' at riser (if yes, problem?)							
4. Vandalism evident							

II. Embankment	Problem		Sche	edule		
ltem	Υ	N	n/a	Routine	Urgent	Comments
1. Erosion - rills/gullies						
2. Cracks, slumps, depressions, bulges						
3. Settlement - especially over barrel						
b. Upstream Slope						
1. Erosion - rills/gullies						
2. Cracks, slumps, depressions, bulges				9		
3. Rip-rap slope protection inadequate						
4. Animal burrows						
c. Downstream Slope			_			
1. Erosion - rills/gullies						
2. Cracks, slumps, depressions, bulges				-		
3. Soft areas				-		
Lush/wetland type vegetation						
5. Woody vegetation < 15' from toe						
6. Seepage on slope/at toe and beyond						
7. Spring seeps						
8. "Boils" - cone-shaped material at toe						
9. Ice buildup						
10. Animal burrows						
d. Vegetation (specify upstream, down	stre	eam	, cre	st)		
Turf cover poor/sparse						
2. Trees, brush, woody vegetation						
3. Mowing needed						

III. Spillway/Outlet Works	P	roble	m	Sche	dule	
Item	Υ	N	n/a	Routine	Urgent	Comments
1. Woody growth ≤ 5' from barrel				2		
2. Woody growth ≤ 25' from riser				3		
3. Trash rack inadequate/missing						
4. Trash rack inadequately attached						
5. Barrel pipe deflection						
6. Riser/barrel/barrel joint seepage						
7. Anti-vortex device not secure						
8. Manhole/cover inadequate/missing						
9. Pond drain inoperable or leaking						
10. Metal corroded/deteriorated coating						
11. Reinforced steel exposed						
12. Concrete spalling						
13. Debris present						
14. Plunge pool clogged/heavily eroded						
15. Riser clogged						
16. Low flow orifice clogged						
b. Outlet	đ		8.		*	
1. Debris present						
2. Erosion in/below outlet plunge area						
3. Erosion – especially exit channel						
4. Riprap protection inadequate						
5. Trees, brush, woody vegetation						
6. Mowing needed						
c. Emergency Spillway						
1. Debris present						
2. Erosion - rills/gullies						
3. Soft/wet areas						
4. Trees, brush, woody vegetation						
5. Mowing needed						

IV. Pool Area/Conveyance	ea/Conveyance Problem		em	Sch	edule	
Item	Υ	N	n/a	Routine	Urgent	Comments
1. Debris present						
2. Pond side slope instability						
3. Sediment accumulation						
4. Divider dike erosion						
5. Aquatic/safety benches inadequate						
6. Pools stagnant, isolated						
7. High water marks present						
b. Conveyance System				-		
1. Erosion/pool slope instability						
2. Excessive sediment/debris in forebay						
3. Concrete conveyances inadequate						
4. Vegetated conveyances inadequate						
5. Endwall, headwall defects						
6. Inflow points undercut/eroded	L.					
7. Sediment accumulation at inflow points						
8. Inflow rip-rap inadequate						
9. Forebay capacity< 50% total storage						
10. Excessive algae						
Other Comments:				-		
	—					
D						

# Wetlands Maintenance Inspection Form

General Information						Facility Type
Facility name:	Lar	id U	se:			W-1 shallow
Address:		pect				W-2 extended detention shallow
		Built	è			W-3 pond/wetland
	Dat	e:				W-4 pocket
Map Book:	We	athe	er:			W-5 pocket pond
I. Structure Access	Р	roble	m	m Schedule		
Item	Υ	N	n/a	Routine	Urgent	Comments
1. Surface repairs needed						
2. Rills/gullies (road bed/adjacent slopes)						
3. Discharge points inadequate						
4. Earth slumps						
5. Trees, brush, woody vegetation						
6. Mowing needed						
b. Fencing						
1. Fence > 4' at outlet						
2. Lock(s) missing on perimeter gate(s)						
3. Fence repairs needed						
4. Gate repairs needed						
c. Riser/pond drain						
1. Inaccessible						
2. Pond drain lock(s) missing						
3. Railing > 4' at riser (if yes, problem?)						
4. Vandalism evident						

II. Embankment	Problem		Sche	dule					
Item	Υ	N	n/a	Routine	Urgent	Comments			
a. Crest									
1. Erosion - rills/gullies									
2. Cracks, slumps, depressions, bulges									
3. Settlement - especially over barrel									
b. Upstream Slope									
1. Erosion - rills/gullies				9					
2. Cracks, slumps, depressions, bulges									
3. Rip-rap slope protection inadequate									
4. Animal burrows				4					
c. Downstream Slope									
1. Erosion - rills/gullies									
2. Cracks, slumps, depressions, bulges									
3. Soft areas									
Lush/wetland type vegetation									
5. Seepage on slope/at toe and beyond									
6. Running spring									
7. "Boils" - cone-shaped material at toe									
8. lce buildup									
9. Animal burrows									
d. Vegetation (specify upstream, down	str	eam	, cre	est)					
Turf cover poor/sparse									
2. Trees, brush, woody vegetation									
3. Mowing needed			L						

III. Spillway/Outlet Works	Problem		Schedule			
ltem	Υ	N	n/a	Routine	Urgent	Comments
a. Principal Spillway						
1. Woody growth ≤ 5' from barrel						
2. Woody growth ≤ 25' from riser						
3. Trash rack inadequate/missing						
4. Trash rack inadequately attached						
5. Barrel pipe deflection						
6. Riser/barrel/barrel joint seepage						
7. Anti-vortex device not secure						
8. Manhole/cover inadequate/missing						
9. Pond drain inoperable or leaking						
10. Metal corroded/deteriorated coating						
11. Reinforced steel exposed						
12. Concrete spalling						
13. Debris present						
14. Plunge pool clogged/heavily eroded						
15. Riser clogged						
16. Low flow orifice clogged						
b. Outlet						
1. Debris present						
2. Erosion in/below outlet plunge area						
3. Erosion – especially exit channel						
4. Riprap protection inadequate						
5. Trees, brush, woody vegetation						
6. Mowing needed						
c. Emergency Spillway						
1. Debris present						
2. Erosion - rills/gullies						
3. Soft/wet areas						
4. Trees, brush, woody vegetation						
5. Mowing needed						

IV. Pool Area/Conveyance	Problem Schedule		dule			
Item	Υ	N	n/a	Routine	Urgent	Comments
a. Pool Area				•		
1. Debris present						
2. Pond side slope instability						
Sediment accumulation						
4. Divider dike erosion						
5. Aquatic/safety benches inadequate						
6. Pools stagnant, isolated						
7. High water marks present						
b. Conveyance System					85	
Erosion/pool slope instability						
2. Excessive sediment/debris in forebay						
Concrete conveyances inadequate						
Vegetated conveyances inadequate						
5. Endwall, headwall defects						
6. Inflow points undercut/eroded						
7. Inflow rip-rap inadequate						
8. Sediment accumulation at inflow points						
9. Forebay capacity< 50% total storage						
10. Excessive algae						

V. Wetland Specific Categories		roble	em	Sche	edule	
Item	Υ	N	n/a	Routine	Urgent	Comments
a. Water						
Adequate water volume lacking						
2. Porous soils, cracked pond liner						
3. Pond empties completely after storms						
4. Pond area becomes dry at times						
b. Vegetation	657					
1. Poor initial plant stock survival						
2. Poor plant diversity						
3. Invasive species dominant	u)					
4. Eroded pond banks				2		
c. Structural Features				-		
1. Absence of forebays/micropool						
2. Straight pilot channel, short circuiting				2	2	
3. Uniform pond depth						
4. Buffer altered						
5. Aquatic benches						
6. Excessive erosion/sediment deposition						
Other Comments:						

Infiltration Maintenance Inspection Form

General Information						Facility Type
Facility name:	0.000	nd U	100000000000000000000000000000000000000			I-1 Infiltration Trench
Address:		Inspector: As-Built:				I-2 Infiltration Basin
	As- Dat				-	
Map Book:	_	athe	er:			
I. Structure Access	Р	roble	em	Sche	edule	
ltem	Υ		n/a		Urgent	Comments
a. Access Road					3	
Access road eliminated				d.	ĵ	
2. Access road < 12' wide						
3. Slope of road > 15%						
4. Asphalt repairs needed						
5. Curb repairs needed						
6. Rills/gullies (road bed/adjacent slopes)						
7. Curb discharge points inadequate						
8. Earth slumps						
9. Trees, brush, woody vegetation						
10. Mowing needed						
b. Fence	***					
1. Fence > 4' at outlet						
2. Lock(s) missing on perimeter fence						
3. Fence repairs needed						
4. Gate repairs needed						
c. Riser/pond drain	_		_			
1. Inaccessible						
2. Lock(s) missing on pond drain						
3. Railing > 4' at riser						
4. Vandalism evident						

II. Embankment	P	roble	em	Sche	dule	
ltem	Υ	N	n/a	Routine	Urgent	Comments
a. Crest						
1. Erosion - rills/gullies						
2. Cracks, slumps, depressions, bulges						
3. Settlement - especially over barrel						
b. Upstream Slope						
1. Erosion - rills/gullies						
2. Cracks, slumps, depressions, bulges						
3. Rip-rap slope protection inadequate						
4. Animal burrows						
c. Downstream Slope				la de		
1. Erosion - rills/gullies						
2. Cracks, slumps, depressions, bulges						
3. Soft areas						
4. Lush/wetland type vegetation						
5. Seepage on slope/at toe and beyond						
6. Running spring						
7. "Boils" - cone-shaped material at toe						
8. Ice buildup						
9. Animal burrows				-		
d. Vegetation (specify upstream, down	stre	eam	, cre	est)		
Poor or sparse turf cover						
2. Trees, brush, woody vegetation						
3. Mowing needed						

III. Spillway/Outlet Works	Pi	roble	m	Schedule		
ltem	Υ	N	n/a	Routine	Urgent	Comments
a. Principal Spillway						
1. Woody growth ≤ 5' from barrel						
2. Woody growth ≤ 25' from riser						
Trash rack inadequate/missing						
4. Barrel joints not watertight						
5. Barrel pipe deflection						
6. Riser/barrel seepage						
7. Anti-vortex device not secure						
8. Manhole/cover inadequate/missing						
9. Pond drain inoperable or leaking					3	
10. Corroded metal/coating deteriorated						
11. Exposed reinforced steel						
12. Concrete spalling					2	
13. Debris present						
14. Clogged/heavily eroded plunge pool						
15. Riser clogged						
16. Low flow orifice clogged						
b. Outlet						
1. Debris present						
2. Erosion in/below outlet plunge area						
3. Erosion – especially exit channel						
4. Riprap protection inadequate						
5. Trees, brush, woody vegetation						
6. Mowing needed						
c. Emergency Spillway						
1. Debris present						
2. Soft/wet areas						
3. Trees, brush, woody vegetation						
4. Mowing needed						

IV. Pool Area/Conveyance	Pi	roble	m	Sche	edule	
Item	Υ	N	n/a	Routine	Urgent	Comments
a. Pool Area						
1. Debris present						
2. Pond slope instability				ę.		
3. Sediment accumulation						
4. Aquatic/safety benches inadequate						
5. Ponded water						
6. High water marks - slow infiltration						
7. Trench - ponded water in obs. well						
8. Sand layer/filter fabric needs replaced						
b. Conveyance System					-	*
Erosion/pool slope instability						
2. Buffer strip < 20' if no forebay						
3. Excessive sediment/debris in forebays						
4. Excessive sediment/debris in buffer						
5. Concrete conveyances inadequate						
6. Vegetated conveyances inadequate						
7. Defects in endwalls, headwalls						
8. Undercutting/erosion at inflow points						
9. Inflow rip-rap inadequate						
10. Sediment accumulation at inflows						
11. Forebay capacity< 50% total storage						
12. Excessive algae						

V. Infiltration Specifics	Problem			Sche	edule	
Item	Υ	N	n/a	Routine	Urgent	Comments
a. Basins						
1. Underdrain clogged						
2. Cleanouts accessible						

V. Infiltration Specifics (continued)		roble	em	Sche	edule		
ltem	Υ	N	n/a	Routine	Urgent	Comments	
b. Trenches							
Observation well(s) adequately capped							
Observation well(s) broken/cracked							
Ponding in observation well							
Sediment accumulation in gravel/sand							
5. Oil/other chemical accumulation in gravel/sand							
6. Filter fabric inadequate							
Other Comments:							

Filtering Practices Maintenance Inspection Form

General Information						Facility Type
Facility name:		nd U				F-1 Surface
Address:		pect				F-2 Underground
		Built	t:			F-3 Perimeter
	Dat	W0000	0.7500			F-4 Organic
Map Book:	VVe					F-5 Pocket F-6 Bioretention
	_					r-o bioletention
I. General	-	roble		Sche		
Item	Υ	N	n/a	Routine	Urgent	Comments
a. Inflow Conveyance System	т —		_			<b>T</b>
1. Erosion	-	_	1			
Sediment/debris/trash accumulation	╄	-	$\vdash$			
Debris clogging flow splitters						
Structural failure in drainage area	<u> </u>					
5. Storm drain system repairs needed						
b. Pretreatment						
1. Sediment accumulation > 6"						
Debris and trash accumulation						
3. Filter strip grass > 12"						
4. Mulch layer < 2"						
5. Standing water in chamber > 36 hrs						
6. Grass in sedimentation chamber				7		
c. Filtering Media						,
1. Uneven or poor condition						
2. Sediment accumulation > 1"						
3. Ponding water/slow filtration > 48hrs						
4. Vegetation dead or not present						
5. Oil/other chemical accumulation						
6. Filter fabric inadequate	1					
7. Grass in filter > 12"	1					
d. Outlet/Downstream Conveyance	•		_			
1. Structural damage						
2. Erosion	1					
Excessive sediment/debris						
Vegetation dead or not present	ĺ					
5. Underdrain inadequate/damaged	1		T			

Other Comments	s:			
<u> </u>				

Open Channel Maintenance Inspection Form

General Information Facility name: Land Use:						Facility Type
Facility name:	Land Use:			O-1 dry swale		
Address:	Inspector: As-Built:			O-2 wet swale		
	Date:					
Map Book:	Weather:					
I. General	Problem Schedule		dule			
Item	Υ	N	n/a	Routine	Urgent	Comments
a. Channel						
1. Side walls eroded						
2. Bottom scouring					0	
3. Gullying/braiding						
4. Standing water > 48 hrs from last rain						
5. Mosquito proliferation						
6. Pollution - oil and grease/other						
7. Obstructions						
8. Sediment/trash deposition						
9. Overgrowth by weeds/shrubs					(*	
10. Underdrain clogged						
11. Grass > 6"						
b. Checkdams (optional)						
1. Sediment/trash deposition						
2. Undermined/eroded						
3. Pea gravel diaphragm inadequate						
Other Comments:						

				Facility Type
Land Use:				
	ctor:			
As-Built:				
eat	nei.			
Prol	blem	Schedule		
I	N n/a	Routine	Urgent	Comments
			0	
÷ 42				
			9	
			5	
	i-Bi ate: eat	ate: eather:	e-Built: eather:  Problem Scho	e-Built: eather:  Problem Schedule

# **Appendix C** Examples (Available at WPRP web page)

### **Examples of the Stormwater Remediation Fee Credit**

Credits are available to **Multi-Family and/or** Non-Residential **Property** owners who implement and maintain approved Best Management Practices. The maximum credit for any property is 50% of the Stormwater Remediation Fee. The maximum credit is achieved by demonstrating compliance with the MDE Manual. Partial credit can be achieved by demonstrating and computing the fractional value of effective impervious area reduction. Credits will also be available for marinas as shown in TABLE 1.

#### Credit Calculation:

(Treated Impervious ÷ Total Impervious) x Program's Maximum Allowable Credit = Fee Reduction %.

# **TABLE 1 - Examples**

#### **Fee Credit Program**

**Availability: Non-Residential Property** 

including Community
Association Owned Property

Account of the Troporty

Amount: Up to 50% reduction for MDE

Manual compliance with stormwater infrastructure

maintained;

Cap: Up to 50% of the Fee

Term: Renewable every 3 Years



# Examples - Fee Credit

Commercial Property:

Impervious Area= 29,400 SF; \$850

Fee/year;

Constructed in 2006 - Meets MDE Manual

with stormwater infrastructure

maintained.

Eligible credit = 50%; Reduced Fee = \$425

Marina Property:

Impervious Area =58,800 SF; \$1,700

Fee/year;

Covered under MDE's NPDES Marina

Permit and in good standing;

Eligible Credit = 25%; Reduced Fee = \$1275

Certified by DNR for the Clean Marina

Initiative

Eligible Credit = An additional 25%;

Reduced Fee = \$850

Credits are available to **Residential Property with an Inspection and Maintenance Agreement for Private Stormwater Management** owners who implement and maintain approved Best Management Practices. The maximum credit for any property is 50% of the Stormwater Remediation Fee. The maximum credit is achieved by demonstrating compliance with the MDE Manual. Partial credit can be achieved by demonstrating and computing the fractional value of effective impervious area reduction. Credits examples for residential properties are shown in TABLE 2.

#### Credit Calculation:

(Treated Impervious ÷ Total Impervious) x Program's Maximum Allowable Credit = Fee Reduction %.

# **TABLE 2 - Examples**

#### **Fee Credit Program**

Availability: Residential Property with an

Inspection and Maintenance Agreement for Private Stormwater Management after the year 2002 or credit

agreement

Amount: Up to 50% reduction for MDE

Manual compliance with stormwater infrastructure



#### **Examples - Fee Credit**

8,000 SF Property:

Impervious Area= 2,000 SF; Treated impervious area 500SF by a rain garden \$85 Fee/year;

Constructed in 2016 – Meets MDE Manual with stormwater infrastructure maintained.

Executed Stormwater Remediation Fee Credit Agreement Eligible credit = (500/2,000)\*0.5= 12.5% Reduced Fee = \$74.3

5 Acre Property:

Impervious Area =10,000 SF; \$170 Fee/year;

Constructed in 2013 – Meets MDE Manual with stormwater infrastructure maintained.

Eligible credit = 50%; Reduced Fee = \$85

TABLE 3 – PROPERTY ELIGIBILITY							
Property Type	Fee Credit Program	Existing Property Tax Credit					
Individual Residence (Single family dwellings, agricultural residential property, etc. with an "Inspection and Maintenance Agreement" for a Private Stormwater Management)	х	х					
Duplex or Multi Family Residence	Х	Х					
Community Association Owned Property	Х	Х					
Mobile Home Park Owner	Х	Х					
Commercial	Х	Х					
Agricultural Non-residential Property	Х	Х					
Church	Х	Х					
Private School	Х	Х					
Fraternal Organization (e.g., Elks)	Х	Х					
Industrial	Х	Х					
Marinas	X	X					

For additional information and examples of credit applications, please contact the Department of Public Works' Watershed Protection and Restoration Program at

(410) 222-4240 or visit the County Web Page http://www.aacounty.org/departments/public-v restoration-fee/

# Anne Arundel County's Watershed Protection And Restoration Special Revenue Fund

