

## Guilford County Planning and Development Stormwater & Watershed

## Bioretention Operation and Maintenance Agreement

Cross Reference to
Plat Book:\_\_\_\_\_ Page:\_\_\_\_
Deed Book:\_\_\_\_ Page:\_\_\_\_

Project Name:	
SCM ID:	
CONTID.	
Property Owner:	
Date:	
	Return To
Name:	
Address:	

Project: Date:



Guilford County Planning and Development Stormwater & Watershed

## Bioretention Operation and Maintenance Agreement

Cross Reference to
Plat Book:\_\_\_\_\_ Page:\_\_\_\_
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I will keep a maintenance record on this SCM. This maintenance record will be kept in a log in a known set location. Any deficient SCM elements noted in the inspection will be corrected, repaired, or replaced immediately. These deficiencies can affect the integrity of structures, safety of the public, and the removal efficiency of the SCM.

## Important maintenance procedures:

- Immediately after the bioretention cell is established, the plants will be watered twice weekly if needed until the plants become established (commonly six weeks).
- Snow, mulch, or any other material will NEVER be piled on the surface of the bioretention cell.
- Heavy equipment will never be driven on or over the bioretention cell.
- Special care will be taken to prevent sediment from entering the bioretention cell.
- Once a year, a soil test of the soil media will be conducted.

After the bioretention cell is established it should be inspected once a month and within 24 hours after every storm event greater than 1.0 inch. Records of operation and maintenance should be kept in a known set location and will be available upon request.

Inspection activities shall be performed as follows. Any problems that are found shall be repaired immediately.

The owner (or owners' association when applicable) responsible for maintenance of the SCM shall retain a qualified professional to perform annual inspections of the SCM. Annual inspection reports prepared by the qualified professional shall be provided to the owner and Guilford County Watershed Section for record file with notification of additional maintenance or repair required.

SCM Element		
Entire SCM	Trash/debris are present	Remove the trash/debris
Perimeter of the bioretention cell	Areas of bare soil and/or erosive gullies have formed	Regrade the soil if necessary to remove the gully, and then plant a groundcover and water until it is established. Provide a one-time lime and fertilizer application
The inlet device: pipe, stone verge, or swale	The pipe is clogged	Unclog the pipe, dispose of debris/sediment properly and off site
	The pipe is cracked or otherwise damaged	Replace the pipe
	Erosion is occurring in the swale	Regrade the swale if necessary to smooth it over and provide erosion control devices such as reinforced turf matting



		or riprap to avoid future problems with erosion
	Stone verge is clogged or covered in sediment	Remove the sediment and dispose of it properly, where it will not cause impacts to streams or jurisdictional features or SCMs. Remove clogged stone and replace with clean stone. Find the source of the sediment and remedy the problem if possible.
The pretreatment area	Erosion has occurred	Provide additional erosion protection such as reinforced turf matting or riprap if needed to prevent future erosion problems
	Weeds are present	Remove weeds, preferably by hand. If pesticides must be used, wipe them on the plants rather than spraying
	Sediment has accumulated to a depth greater than three inches.	Remove the sediment and dispose of it properly, where it will not cause impacts to streams, jurisdictional features or SCMs. Find the source of the sediment and remedy the problem.
	Flow is bypassing the pretreatment area and/or gullies have formed	Regrade if necessary to route all flow to the pretreatment area. Re-stabilize the area after grading.
The bioretention cell: vegetation	Best professional practices show that pruning is needed to maintain optimal plant health.	Prune according to best professional practices.
	Plants are dead, diseased, or dying.	Determine the source of the problem: soils, hydrology, disease, etc. Remedy the problem and replace plants. Provide a one-time fertilizer application to establish the ground cover if a soil test indicates its necessary.
	Tree stakes/wires are present six months after planting.	Remove tree stakes/wires (which can kill the tree if not removed)
The bioretention cell: soils and mulch	Mulch is breaking down or has floated away	Spot mulch if there are only random void areas. Replace whole mulch layer if necessary. Remove remaining mulch and replace with triple shredded hard wood mulch at a maximum depth of three inches.
	Soils and/or mulch are clogged with sediment	Determine the extent of the clogging – remove and replace either just the top layers or the entire media as needed.  Dispose of the media in an appropriate off site location. Use triple shredded

Project: Date:



		hard wood mulch at a maximum depth of three inches. Search for the source of the sediment and remedy the problem if possible.
	An annual soil test shows that pH has dropped or heavy metals have accumulated in the soil media.	Dolomitic lime shall be applied as recommended per the soil test and toxic soils shall be removed, disposed of properly and replaced with new planting media.
The underdrain system (if applicable)	Clogging has occurred	Wash out the underdrain system.
The drop inlet	Clogging has occurred	Clean out the drop inlet. Dispose of the sediment properly, and off site.
	The drop inlet is damaged	Repair or replace the drop inlet.
The receiving water	Erosion or other signs of damage have occurred at the outlet	Contact Guilford County Stormwater/Watershed Section

Project: Date:



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I acknowledge and agree by my signature below that I am responsible for the performance of the maintenance procedures listed above. I agree to notify Guilford County Planning and Development Department, Stormwater & Watershed Section of any problems with the system or prior to any changes to the system or responsible party.

Project Name:	
SCM ID:	
Property Owner:	
Authorized Signer for Property Owner (Print Name & Title):	
Address:	
Phone:	
Signature:	
Date:	
appeared before me this day of	, a Notary Public for the State of personally, do hereby certify that personally, and acknowledge the due execution of the enance requirements. Witness my hand and official seal,
SEAL	
My commission expires:	