

# BAYFILTER SCM DESIGN CHECKLIST

**Stormwater Management Division  
c/o Development Services Department**

One Exchange Plaza, 4<sup>th</sup> Floor  
Raleigh, NC 27601  
Telephone (919) 996-3773

## I. PROJECT INFORMATION

Project Name: \_\_\_\_\_ Phase: \_\_\_\_\_  
 Project Address: \_\_\_\_\_ Disturbed Area (sf): \_\_\_\_\_  
 PIN: \_\_\_\_\_ Case #: \_\_\_\_\_ Submittal Date: \_\_\_\_\_  
 Previous Permit numbers (if applicable): \_\_\_\_\_  
 Zoning District: \_\_\_\_\_  
 Legal Name of Owner: \_\_\_\_\_  
 Owner Contact: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Owner Address: \_\_\_\_\_  
 Design Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Design Contact Email: \_\_\_\_\_  
 The regulatory drainage basin in which the site is located: \_\_\_\_\_  
 The water supply watershed in which the site is located: \_\_\_\_\_

Function of Facility [check all that apply]:	
<input type="checkbox"/>	Nutrient (Total Nitrogen) Reduction
<input type="checkbox"/>	Green Stormwater Infrastructure
<input type="checkbox"/>	TSS Reduction
<input type="checkbox"/>	Peak Flow Rate Attenuation
<input type="checkbox"/>	<input type="checkbox"/> 1-Year event
<input type="checkbox"/>	<input type="checkbox"/> 10-Year event
<input type="checkbox"/>	<input type="checkbox"/> 100-Year event
<input type="checkbox"/>	<input type="checkbox"/> Other [ _____ ]
<input type="checkbox"/>	<input type="checkbox"/> Other [ _____ ]

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- II. **SUBMITTAL REQUIREMENTS** - See COR Stormwater Management Design Manual Chapter 5 for additional guidance. This completed checklist shall be submitted to the City of Raleigh with any proposed BayFilter. All files shall also be submitted electronically via CD or flash drive.

Routed flows and water surface elevations (WSE) at SCM (as applicable):			
Storm Event	Inflow	Outflow	WSE
1-Year			
10-Year			
100-Year			
____-Year			
Peak flow rates at immediate point of analysis to which the SCM drains:			
Condition	1-year	10-year	____-year
Pre-development			
Post-development			

General Design Criteria	
<input type="checkbox"/>	<b>Sizing:</b> The design volume of the SCM accounts for the runoff at full build-out from all surfaces draining to it (calculations provided in Stormwater Development Analysis).
<input type="checkbox"/>	Design Storm Volume: _____ cf
<input type="checkbox"/>	<b>Dewatering:</b> SCM has a method to draw down any standing water to facilitate maintenance and inspection.
<input type="checkbox"/>	<b>Clean Out After Construction:</b> SCM impacted by sedimentation and erosion control during the construction phase shall be cleaned out and converted to its approved design state.
<input type="checkbox"/>	<b>Maintenance Access:</b> SCM has been provided with adequate access per City standards.
<input type="checkbox"/>	<b>Easements (except for SCMs located on single family residential lots):</b> Includes maintenance access, entire SCM footprint, and an additional 10 ft or more around the SCM.
<input type="checkbox"/>	<b>Single Family Residential Lots:</b> Plats for residential lots that contain an SCM shall include the location of SCM, typical detail of SCM, and note that the SCM on the property is required to meet stormwater regulations and that the property owner may be subject to enforcement actions if the SCM is removed, relocated, or altered without prior approval.
<input type="checkbox"/>	<b>Operation and Maintenance (O&amp;M) Agreement.</b>

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<input type="checkbox"/>	<b>Operation and Maintenance (O&amp;M) Plan.</b>
<input type="checkbox"/>	<i>Operation and Maintenance (O&amp;M) Manual Submittal Checklist.</i>
<input type="checkbox"/>	<b>Maintenance Access:</b> Access to the underground detention system has been provided in accordance with OSHA standards and requirements.
<input type="checkbox"/>	<b>Erosion Protection:</b> The SCM inlets and outlet have been designed to protect areas downstream of the discharge points from erosion resulting from peak flows for the 10-year storm event.

Specific BayFilter Design Criteria	
<input type="checkbox"/>	<b>BayFilter Sizing:</b> An upstream detention/retention system has been designed to store 75% of the first 1" of rainfall runoff and drains to the BayFilter System <b>OR</b> the BayFilter System has been designed to treat the flow rate created by the water quality storm.
<input type="checkbox"/>	Sizing Basis (flow or volume):
<input type="checkbox"/>	Number of Cartridges:
<input type="checkbox"/>	<b>Media Flow Rate:</b> The BayFilter Media Flow Rate is a maximum of 0.5 GPM/sf of media surface area.
<input type="checkbox"/>	<b>Media Type:</b> The appropriate media has been used for the purpose of the BayFilter. <i>Note: BaySaver should be used for TSS and phosphorus removal and a granular activated carbon component is used for metals removal.</i>
<input type="checkbox"/>	Media Type:
<input type="checkbox"/>	<b>Sedimentation:</b> The system includes a sediment sump with minimum dimensions of 4' diameter x 2' deep to achieve a 30% Pretreatment Credit.
<input type="checkbox"/>	Sediment Sump Dimensions:
<input type="checkbox"/>	<b>Maintenance:</b> The system has been specified to have maintenance performed by Certified Maintenance Providers per BaySaver Operation and Maintenance Instructions.

The SCM Plan Submittal shall also include the following elements:	
<input type="checkbox"/>	A plan view of the SCM, with grading and appropriate critical spot shots, has been provided.
<input type="checkbox"/>	A profile (showing all relevant component elevations and WSEs) through the riser, dam, and outlet structure/outfall has been provided.
<input type="checkbox"/>	Details of other required SCM elements have been provided.
<input type="checkbox"/>	All supporting design calculations (including all applicable site design calculations and drainage area exhibits) have been provided.

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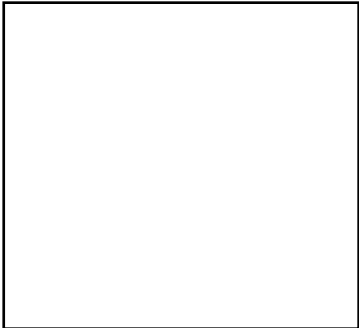
**III. PROFESSIONAL CERTIFICATION**

Name: \_\_\_\_\_

Contact Email: \_\_\_\_\_

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

Professional Seal:



FOR REVIEW ONLY