

# DRY POND SCM DESIGN CHECKLIST

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

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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"/>	1-Year event
<input type="checkbox"/>	10-Year event
<input type="checkbox"/>	100-Year event
<input type="checkbox"/>	Other [ _____ ]
<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 Dry Pond. 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>Side Slopes of SCM:</b> Vegetated side slopes are no steeper than 3:1.
<input type="checkbox"/>	<b>Excess Flows:</b> SCM includes an overflow/bypass device for inflow volumes in excess of treatment volume or, if applicable, peak attenuation volume (calculations provided in Stormwater Development Analysis).
<input type="checkbox"/>	Description of Overflow/Bypass: _____
<input type="checkbox"/>	Emergency Outlet Elevation: _____ ft
<input type="checkbox"/>	Emergency Spillway Width: _____ ft
<input type="checkbox"/>	Emergency Spillway Side Slopes: _____ : 1
<input type="checkbox"/>	Emergency Spillway Slope: _____ %
<input type="checkbox"/>	Depth of Flow: _____ in
<input type="checkbox"/>	<b>Freeboard:</b> Minimum 0.5 ft freeboard required for 100-year storm.

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<input type="checkbox"/>	Freeboard provided:	ft
<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>	
<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>Dam Embankment:</b> The dam top width is at least 10-ft with face slopes no steeper than 3:1. Material, compaction, and other appropriate geotechnical specifications for the construction of the dam embankment have been provided. Appropriate permanent turf grass stabilization has been specified for the entire dam.  Note: Trees, shrubs, and clumping grass are prohibited on <b>ALL</b> dams.	
<input type="checkbox"/>	<b>Principal Spillway:</b> Riser and principal spillway pipe is reinforced concrete.	
<input type="checkbox"/>	Appropriate seepage control elements have been provided.	
<input type="checkbox"/>	A surface baffle, trash rack, or similar device has been specified for the riser top and intakes (as applicable).	
<input type="checkbox"/>	Anti-floatation calculations and details have been included with the design of the riser structure.	
<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 Dry Pond Design Criteria		
<input type="checkbox"/>	<b>Seasonal High Water Table:</b>	The lowest point of the dry pond shall be a minimum of 6 inches above the Seasonal High Water Table (SHWT).
<input type="checkbox"/>	SHWT Separation:	in
<input type="checkbox"/>	<b>Temporary Pool Depth:</b>	The maximum depth of the temporary pool is 10 feet.
<input type="checkbox"/>	Temporary Pool Depth:	ft

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<input type="checkbox"/>	<b>Pre-treatment:</b> A pre-treatment mechanism has been provided (i.e., grass filter strip, forebay, etc.).
<input type="checkbox"/>	<b>Location of Inlet(s) and Outlets:</b> The inlet(s) and riser/outlet structures have been positioned to avoid the short circuiting of pond flows. A flow length to pond width ratio (L:W) is at least 3:1.
<input type="checkbox"/>	Length to Width Ratio:
<input type="checkbox"/>	<b>Outlet Structure</b>
<input type="checkbox"/>	A screen, trash rack, or other device has been provided to prevent large debris from entering the outlet system.
<input type="checkbox"/>	The dry pond includes a small permanent pool near the outlet to reduce clogging and to keep floating debris away from the orifice.
<input type="checkbox"/>	The bottom of the dry pond has been graded uniformly to flow toward the outlet structure without high or low spots other than an optional low flow channel.
<input type="checkbox"/>	<b>Drawdown Time:</b> The design volume draws down between 2-5 days.
<input type="checkbox"/>	Drawdown Time: _____ hr
<input type="checkbox"/>	<b>Protection of Receiving Stream:</b> Dry pond has been designed such that the runoff from the one-year, 24-hour storm has minimal hydrologic impacts to the receiving channel.

<b>The SCM Plan Submittal shall also include the following elements:</b>	
<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.

### III. PROFESSIONAL CERTIFICATION

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

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

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

Professional Seal: