



DeKalb County Planning & Sustainability Department

178 Sams Street, Decatur,
GA 30030

Lorraine Cochran-Johnson
Chief Executive Officer

Cedric Hudson
Interim Director

Important note: All drawings shall have the seal and signature of the design professional, along with the date the drawings were prepared.

WATER QUALITY REVIEW CHECKLIST FOR SINGLE FAMILY RESIDENTIAL

This checklist shall be submitted with your documents/drawings. Answers shall be provided to all items as “no” or “yes”; and if “no”, you must explain why the item in question is not applicable.

Project Name: _____

Date: _____

Address: _____

Parcel #: _____

Name of Design professional _____

Signature _____

Seal _____

Date: _____

INFORMATION TO BE SHOWN ON THE DRAWINGS OR WATER QUALITY SHEET	IS ITEM ADDRESSED?		IF NO, EXPLAIN
<p>1. Show the “required” water quality volume (WQv). Use the Georgia Stormwater Management Manual for the WQv formula (i.e. $(1.2 \times R_v \times A)/12$)</p> <p>Important notes:</p> <p>(1) A is the total square feet of the site/property</p> <p>(2) In situations where, the development is only a portion of the total site, and you believe that using the A may result in over-designing the BMPs, you may use the Stormwater Quality Site Development Review Tool instead to show compliance with the water quality review tool which will allow you to accounts for the basins, disturbed areas and area draining to the BMPs.</p>	<p>NO</p> <p><input type="checkbox"/></p>	<p>YES</p> <p><input type="checkbox"/></p>	
<p>2. Show the “provided” water quality volume by the BMP(s) being proposed.</p> <p>(volume “provided” must exceed or equal to volume “required”)</p>	<p>NO</p> <p><input type="checkbox"/></p>	<p>YES</p> <p><input type="checkbox"/></p>	



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3. Sheet must be sealed by a registered professional civil engineer, landscape architect, land surveyor or architect.	NO <input type="checkbox"/>	YES <input type="checkbox"/>	
4. Minimum sheet size is to be 11" x 17"	NO <input type="checkbox"/>	YES <input type="checkbox"/>	
5. The following information must be provided on the proposed condition sheet: <ul style="list-style-type: none"> • Location of Water Quality BMP(s) • Dimension/size of the water quality BMPs (Length x Width x Depth of infiltration trench pit, diameter of flo-wells, number of flo-wells, etc.) must be provided/shown on the proposed condition site plan • Volume "required" by each water quality BMP • Construction details: installation specification, x-section details, maintenance activities and schedule for each water quality BMP • Type of material and size of pipes being used to direct runoff to each water quality BMP 	NO <input type="checkbox"/>	YES <input type="checkbox"/>	



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<p>basements and crawlspace)</p> <ul style="list-style-type: none"> ➤ 25' of building foundation OR 3 times the elevation difference between top of water quality BMPs and bottom of lowest floor, whichever is greater; when water quality BMP is above lowest floor (including basements and crawl space) ➤ Within 10 feet downgradient of building foundation ➤ Within backfill of retaining walls (without a Professional Engineer's structural certification) <ul style="list-style-type: none"> • Cleanout and emergency bypass(es) for excess flows shall be installed and shown on the site plan • Infiltration devices shall be placed on 0% grade • Maximum allowable void ratio is 40% 			
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<p>7. The following notes must be added:</p> <ul style="list-style-type: none"> • As-built water quality certification shall be provided before issuance of Certificate of occupancy • Water quality BMP(s) to be installed at the time of final landscaping • All collected water shall be directed to the water quality devices. All runoff from roof drain shall be directed to the water quality BMP • Overflow from water quality BMP shall not adversely affect adjacent properties 	<p>NO</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>YES</p> <p style="text-align: center;"><input type="checkbox"/></p>	
<p>8. Refer to the latest edition of the Georgia Stormwater Management Manual (GSMM) for list of acceptable water quality BMPs, as well as for their engineering design process.</p>	<p>NO</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>YES</p> <p style="text-align: center;"><input type="checkbox"/></p>	
<p>9. Manufacturer design spreadsheet for volume calculations are not accepted.</p> <p>You may use manufacturers' information to select the number of BMPs, their sizes and dimensions; however you must use mathematical formula to calculate the volume provided by those BMPs.</p>	<p>NO</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>YES</p> <p style="text-align: center;"><input type="checkbox"/></p>	
<p>10. In order for permeable materials/features such as permeable pavers, porous concrete/asphalt, artificial turf, etc. to be considered/accepted as pervious surfaces; they must be designed to retain the same volume of runoff as a</p>	<p>NO</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>YES</p> <p style="text-align: center;"><input type="checkbox"/></p>	



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<p>pervious surface such as a lawn. Hence, you must show that the proposed pervious material has the capacity/volume to retain the same amount of runoff as a lawn:</p> <p>(a) Calculate the runoff Q (in) to be expected from a lawn/grass area using equation 3.1.5 from the Georgia Stormwater Management Manual (GSMM, 2016 Edition). $Q = (P - 0.2S)^2 / (P + 0.8S)$ ($S = (1000/CN) + (-10)$ with CN curve number of lawn/grass for the applicable hydrological group soil)</p> <p>(b) Precipitation value P to be used must be the 25-yr rainfall value from the NOAA Atlas Point Precipitation estimates.</p> <p>(c) Compute the volume of runoff F (in) to be retained by the permeable material: $F = P - Q$</p> <p>(d) Compute the depth of the storage area of the permeable material: $D = F/n$ where “n” is the porosity. (Please, note that D is depth of the storage area, and not the total depth of the entire permeable material which will include the depth of other layers and of the pavers or asphalt/concrete)</p> <p>(e) If an upturned underdrain is used, then $D = F / (0.75 \times n)$</p> <p>(f) If an underdrain is used, then $D = F / (0.5 \times n)$</p> <p>If the permeable materials/features are used for the purpose to reduce the proposed impervious surfaces square footage to less than the threshold stated in Sec.14.40, hence to not</p>			
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<p>provide full stormwater management/detention; then the permeable materials/features cannot be used to also comply with the water quality requirement. A separate BMP shall be used to provide Water Quality.</p>			
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