

DURHAM



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**To:** All Development Community Members, Consultants and Development Design Professionals

**From:** Shea S. Bolick, PE, PLS, CFM   
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**Subject:** Letter to Industry 5-17-16 – Total Nitrogen Removal Credit for Wet Detention Basins

### Background

The City of Durham utilizes the following as specified in Section 8.3 of the *City of Durham Reference Guide for Development* to regulate stormwater control measure design and construction:

- The latest addition of the North Carolina Department of Environmental Quality (NCDEQ) Stormwater Best Management Practices Manual and its associated BMP Manual Errata Sheet. These documents can be viewed or downloaded from NCDEQ's website at the following address: <https://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permit-guidance/stormwater-bmp-manual>.
- The City of Durham Addendum to the State Manual, which can be found under the Stormwater Development Review webpage at: <http://durhamnc.gov/DocumentCenter/View/3082>.

The current version of the NCDEQ Stormwater Best Management Practices Manual credits a properly designed wet detention basin with a total nitrogen (TN) removal efficiency of 25%. On April 19, 2016 the NCDEQ Stormwater Program issued a public notice for comments on changing the TN removal credit assigned to wet detention basins from 25% to 30%. The public notice further stipulates that during the interim, applicants who wish to take advantage of this additional TN removal credit may do so immediately. This direction is specifically for state applicants and not those of local governments.

It is the Stormwater Development Review Section's desire to address proposed changes to the State Manual by providing written comments during the public comment period, then let the State vet the public comments and revise their manual as supporting documentation stipulates. The City of Durham in turn either accepts what was adopted by the State or issues addenda to the State Manual for additions, clarifications, and exceptions.

### **Voluntary Rule Implementation**

City staff has vetted this proposed change by NCDEQ, accepts the supporting rationale/documentation, and finds it beneficial for all parties. Therefore, effective immediately the City adopts the State's direction to allow one to voluntarily design their project to take advantage of this additional TN removal credit. Thus Durham will allow the additional crediting prior to formal adoption by the State. This allows one to eliminate level spreaders-vegetative filter strips prior to riparian buffers when the wet detention basin discharges directly to a jurisdictional stream in accordance with NCDEQ's requirements for bypass channels/pipes, entry location and angles, outlet protection, etc. Note that this activity will still require a No Practical Alternative Authorization/Application (NPAA) by NCDEQ if in the Neuse River Basin or by the City of Durham if in the Jordan Lake Basin. It does not change removal credits in the Jordan Falls Lake Stormwater Nutrient Load Accounting Tool. Nor would this eliminate the need for a vegetative filter strip at the outlet of a wet detention basin designed for 85% TSS removal efficiency in accordance with Table 10-1 of the State Manual when the basin is not situated adjacent to a riparian buffer and does not discharge to a jurisdictional stream.

### **Timing**

The implementation of this voluntary requirement is solely at the applicant's discretion and can take place immediately on all submittals/resubmittals.