

## Wake County Resubmittal 12.9.11

### Response to 11.18.11 Review Comments from John Huisman

1. To help with the EMC's review of your submittal in advance of the January EMC meeting and given the programs from all fourteen Falls Local Governments will be submitted all together at the same time it would be helpful if you could add a cover page to your submittal clearly identifying the document as Wake County's Falls Lake Program. Please include a table of contents identifying the location of the different program component per the model program and what page the applicable documents can be located within the submittal so the EMC members can easily locate the various sections for review. A short narrative providing some background and explaining how you plan to implement the rules (through revisions to your existing ordinances and vs. adopting the model ordinance) will also aid them in their review of your submittal.

The first document included in the PDF resubmittal of Wake County's Program is a cover letter dated 12.09.11, followed by this reply to John Huisman's emailed dated 11.18.11 and a Table of Contents. As noted in the original submittal cover letter and contents, it is Wake County's intention to adopt the Falls Lake New Development Rules by reference into Article 9 Stormwater Management of the Wake County Unified Development Ordinance. We do not intend to adopt the Model Ordinance or individual provisions of the Model Ordinance.

The proposed UDO Text Amendment can be found in Section 9, *Ordinance Changes, Proposed UDO Ordinance Amendment*. I have highlighted the text that will be added to the UDO.

2. While we understand you plan to amend your existing UDO to incorporate the Falls Lake requirements and that many of the implementation provision may already exist in the current text of the UDO, it is very important that you provide us with a copy of the UDO along with a list providing details as to where in the UDO the each falls lake sections/provision from the Falls Model Ordinance are located or addressed. Clearly indicating where these items can be found and highlighting the text within the UDO document will allow EMC members to easily find them for review. While the model ordinance text is not "required" we do need to have a full understanding of where the model ordinance provisions are addressed in your UDO to review and approve how you plan to implement the Falls Rule requirements. For example, how are variances, appeals, and review procedures handles? Is Wake County using a similar definitions for redevelopment and other applicable terms that matches the intent of the rule? Where and what are the BMP maintenance requirement ect...

It is Wake County's intention to adopt the Falls Lake New Development Rules by Reference into Article 9 Stormwater Management of the Wake County Unified Development Ordinance (UDO). We do not intend to adopt the Model Ordinance or individual provisions of the Model Ordinance. Noted below are references to the applicable comparable provisions in the UDO and other documents for compliance.

<b>Wake County Unified Development Ordinance</b>
<b><u>Title:</u></b> Article 1, General Provisions, Section 1-10 Title
<b><u>Authority:</u></b> UDO Article 1, General Provisions, Section 1-13 and Article 9, Stormwater Management, Proposed Section 9-21 State Nutrient Management Startegies
<b><u>Findings:</u></b> UDO Article 1, General Provisions, Section 1-11 Purpose and Article 9, Stormwater Management, Section 9-10 Purpose
<b><u>Purpose:</u></b> UDO Article 1, General Provisions, Section 1-11 Purpose and Article 9, Stormwater Management, Section 9-10 Purpose
<b><u>Applicability &amp; Jurisdiction:</u></b> UDO Article 1, General Provisions, Section 1-14 Applicability and Article 9, Stormwater Management, Section 9-11 Scope <b><u>-General</u></b> :same as above <b><u>-Exemptions:</u></b> Article 9, Stormwater Management, Section 9-12 Exemptions and Proposed Section 9-21 State Nutrient Management Startegies <b><u>-No Development / Redevelopment Until Compliance Permit -</u></b> Article 20 Enforcement and Penalties, Section 20-14 Penalties, Remedies and enforcement <b><u>-Map:</u></b> Wake County Zoning Map on County Web Page
<b><u>Interpretation:</u></b> UDO Article 2 Administration, Section 2-12-2
<b><u>Design Manual:</u></b> Article 9, Stormwater Management, Section 9-22 Stormwater Design Manual <b><u>-Reference to Design Manual:</u></b> Same as above <b><u>-Changes to Standards &amp; Specifications:</u></b> UDO Article 1, General Provisions, Section 1-18-7 Current Versions and Citations
<b><u>Relationship to other Laws, Regulations &amp; Private Agreements:</u></b> UDO Article 1, Section 1-19 Conflicting Provisions
<b><u>Severability:</u></b> UDO Article 1, Section 1-21 Severability
<b><u>Effective Date &amp; Transitional Provisions:</u></b> UDO, Article 1, General Provisions, Section 1-16 Effective Date (April 17, 2006) and Section 1-20 Transitional Provisions
<b><u>Review &amp; Decision Making Entities:</u></b> UDO Article 2. Administration, Article 9 Stormwater Management and Proposed Section 9-21 State Nutrient Management Startegies
<b><u>Review Procedures</u></b> :UDO Article 19 Review and Approval Proceedures, Article 9 Stormwater Management, Article 20 Enforcement and Penalties, Section 20-15 Enforcement Procedures, Section
<b><u>Establishment of Application Requirements, Schedules, &amp; Fees:</u></b> Section 9-40 Applications Requirements, Article 19 Review and Approval Proceedures, Part 1 General and Section 19-42 Permits and UDO Article 9, Part 4 Administration

<p><b><u>Applications for Approval - Concept Plan &amp; Consultation Meeting:</u></b> UDO Article 19 Review and Approval Procedures, Section 19-10, Preapplication Meeting, Section 19-11 Form of Application and Filing fees, Section 19-42 Permits</p>
<p><b><u>Approvals:</u></b> UDO Article 19 Review and Approval Procedures, Section 19-42 Permits</p>
<p><b><u>Appeals:</u></b> UDO Article 19 Review and Approval Procedures, Section 41 Appeals of Administrative Decisions</p>
<p><b><u>General Standards:</u></b> This is addressed by the submittal checklist, Standards Checklist for New development Rule Falls Lake, enclosed with our program submittal and the Wake County Hybrid Tool worksheet submittal requirements.</p>
<p><b><u>Nitrogen &amp; Phosphorus Loading Standards:</u></b> Same as above</p>
<p><b><u>Nitrogen &amp; Phosphorus Standard is Supplemental:</u></b> Same as above</p>
<p><b><u>Controls &amp; Treatment of Runoff:</u></b> Same as above</p>
<p><b><u>Partial Offset of Nutrient Control Requirements:</u></b> Same as above</p>
<p><b><u>Evaluation of Standards for Stormwater Control Measures</u></b>  <b><u>- Evaluation According to Design Manual:</u></b> Same as above  <b><u>- Determination of Adequacy; Presumptions and Alternatives:</u></b>  Same as above</p>
<p><b><u>Dedication of BMPs, Facilities &amp; Improvements:</u></b> :UDO Article 9, Stormwater Management, Part 3 Competition and Maintenance of Improvements</p>
<p><b><u>Variances:</u></b> UDO Article 2, Administration, Section 2-11 Board of Adjustments</p>
<p><b><u>General Standards for Maintenance:</u></b> UDO Article 9, Stormwater Management, Part 3 Competition and Maintenance of Improvements and submittal checklists included in our program submittal under Forms.  <b><u>- Function of BMPs as Intended:</u></b> UDO Article 9 Stormwater Management, Section 9-32 Assurances That improvements Will Be Maintained  <b><u>- Annual Maintenance Inspection &amp; Report:</u></b> UDO Article 9 Stormwater management, Section 9-32-3 Maintenance Plan</p>
<p><b><u>Operation &amp; Maintenance Agreement</u></b> UDO Article 9 Stormwater Management, Section 9-32 Assurances That Improvements will Be Maintained  <b><u>- In General:</u></b> Same as above  <b><u>- Special Requirements for Homeowners' &amp; Other Associations:</u></b>  UDO Article 9 Stormwater Management, Section 9-32-3 Maintenance Plan, Article 8 Subdivision Design and Improvements, Section 8-25 Property Owners Associations, also see sample specific maintenance agreements under Forms</p>

**Inspection Program:** UDO Article 9 Stormwater Management, Section 9-51 Inspection of Stormwater Improvements

**Performance Security for Installation & Maintenance:**UDO Article 9 Stormwater Management, Section 9-31-1 Performance Guarantee, Section 9-32 Assurances That Improvements Will Be Maintained and Section 8-22 Performance Guarantee, Section 8-23 Maintenance of Required Improvements

**- May Be Required:**UDO Article 9 Stormwater Management, Section 9-31-1 Performance Guarantee

**- Amount:** UDO Article 8 Subdivision Design and Improvements, 8-23-3 Form and Amount of Performance Guarantees

**- Uses of Performance Security:** UDO Article 8 Subdivision Design and Improvements, Section 8-22-1 Purpose

**- Costs in Excess of Performance Security:** UDO Article 8 Subdivision Design and Improvements, 8-23-3 Form and Amount of Performance Guarantees

**- Refund:** UDO Article 8 Subdivision Design and Improvements, Section 8-22-5 Release of Performance Guarantee

**Notice to Owners:** UDO Article 9 Stormwater Management, Section 9-32-3 Maintenance Plan and Section 9-32-4 Maintenance Agreement and Article 8 Subdivision Design and Improvements, Section 8-25 Property Owners Associations

**- Deed Recordation:**UDO Article 9 Stormwater Management, Section 9-32-6 Documents Required Before Plat Approval or Building Permit

**- Signage:** n/a

**Records of Installation & Maintenance Activities:**UDO Article 9 Stormwater management, Section 9-31-2 As-built Plans and Section 9-32 Assurances That Improvements Will be Maintained

**Nuisance-** Article 20 Enforcement and Penalties

**Maintenance Easement:** UDO Article 9 Stormwater Management, Section 9-32-5

**Enforcement & Violations - General:** UDO Article 9 Stormwater Management, Section Part 5 Enforcement and Penalties and UDO Article 20 Enforcement and Penalties

**- Authority:** UDO Article 9 Stormwater Management, Section Part 5 Enforcement and Penalties and UDO Article 20 Enforcement and Penalties

**- Violation Unlawful:** Article 20 Enforcement and Penalties, Section 20-13 Violations

**- Each Day Separate Offense** Article 20 Enforcement and Penalties, Section 20-14-3 Civil Penalty

**- Responsible Persons / Entities:** Article 20 Enforcement and Penalties, Section 20-12

**Remedies & Penalties :**Article 20 Enforcement and Penalties, Section 20-14

<p><b><u>- Withholding of Certificate of Occupancy:</u></b>Article 20 Enforcement and Penalties, Section 20-14</p> <p><b><u>- Disapproval of Subsequent Permits &amp; Development Approvals:</u></b>Article 20 Enforcement and Penalties, Section 20-14</p> <p><b><u>Injunctions, Abatements</u></b> Article 20 Enforcement and Penalties, Section 20-14-5</p> <p><b><u>- Corrections as Public Health Nuisance, Costs as Lien</u></b> Article 20 Enforcement and Penalties</p> <p><b><u>- Stop Work Order</u></b> Article 20 Enforcement and Penalties, Section 20-14 Penalties, Remedies and Enforcement Powers</p> <p><b><u>- Civil / Criminal Penalties</u></b> Article 20 Enforcement and Penalties, Section 20-14-3 Civil Penalty and Section 20-14-4 Criminal Penalty</p>
<p><b><u>Procedures</u></b> :Article 20 Enforcement and Penalties, Section 20-15 Enforcement Procedures</p> <p><b><u>- Initiation / Complaint:</u></b>Article 20 Enforcement and Penalties, Section 20-15 Enforcement Procedures, Section 20-15-1 Investigation</p> <p><b><u>- Inspection:</u></b> same as above</p> <p><b><u>- Notice of Violation &amp; Order to Correct</u></b> Article 20 Enforcement and Penalties, Section 20-15-2 Notice of Violation</p>
<p><b><u>Definitions</u></b> :UDO Article 21 Definitions and and Proposed Section 9-21 State Nutrient Management Strategies</p>

3. It to do this, staff and the EMC members reviewing the submittal need to have a list of the model ordinance provisions (as shown in the Model Ordinance Table of Contents) with an explanation of where each provision is addressed in your program. As already noted we will also require that the relevant text be highlighted making it easy to locate for review. Provided below is a summary list of the different provisions from the model ordinance we are looking to see addressed in your program (either through new amended text or existing text that you direct us to in your current program language). If you have any questions about this please call me as soon as possible as this is critical to the completion of our internal review as well as the EMC review process.

Reference to the Model Ordinance Provisions is not applicable to Wake County. We plan to adopt the New Development Rules by Reference in Article 9 Stormwater Management of the Wake County Unified Development Ordinance. Wake County is not proposing to adopt the Model Ordinance or individual provisions of the Model Ordinance. Noted above are references to the applicable comparable provisions in the UDO and other documents used for compliance with the UDO. The proposed text amendment is enclosed in our program submittal under Section 9, *Ordinance Changes* with new text shown highlighted.

4. Please consider providing additional details in your narrative section (what was posted on your website submittal) concerning the explanation of your BMP maintenance / Inspection Program Procedures.

BMP Maintenance/Inspection Program – Wake County's stormwater maintenance/inspection requirements are outlined in the Wake County Unified Development Ordinance, Article 9, Stormwater Management, Part 3, Completion and Maintenance of Improvements. Article 9 is included with this submittal.

*Article 9 Stormwater Management of the UDO, Section 9-32 Assurance That Improvements Will Be Maintained* - requires the developer to maintain the improvements until accepted by a property owner or property owners association. The developer must disclose which party will be responsible for continued maintenance on the record plat and on the required stormwater management plan. Prior to this acceptance, the developer must provide certification to the property owner and property owners association and to the County that improvements are complete and functioning as designed. The developer must then record a maintenance plan that instructs the property owners association or lot owner about the annual maintenance tasks and associated cost for at least a 20-year period.

The Unified Development Ordinance assigns responsibility for annual BMP inspections and reporting to the property owner or an owners association. In an effort to monitor the effectiveness of private sector maintenance and inspections, Wake County began its own annual inspections of private BMPs in 2009, although it is under no statutory obligation to do so. Wake County elected in 1992 to follow the low density option to comply with the State's Water Supply Watershed regulations. Under the low density option, Wake County is not required to maintain BMPs. However, if it had elected the high density option, the County would be responsible for such maintenance.

5. Thank you for your comments regarding errors with the Falls Lake Stormwater Accounting Tool. We have worked with NCSU staff to correct 4 of the four issues you raised. Concerning the fourth issue regarding BMP oversizing, could you please provide additional information to clarify your concern? Once we have a better understanding of your concern we will take additional steps to make sure it is addressed.

As discussed, NCDENR is still reviewing this issue. The remaining fourth issue only affects the Jordan/Falls Tool and does not affect the Wake County Hybrid Tool performance.

It is understood that additional corrections to the JF Tool were identified and corrected by Kathy DeBusk recently. Wake County would like to obtain a copy of these corrections to ensure that the WC County Tool accounts for these changes as well.

6. Regarding the comparison of the Wake County Proposed Accounting Tool vs. The Falls Lake Accounting Tool. I did not see included in the submittal the excel spreadsheets capturing the example outputs for comparison (I apologize if I missed them) but they did

not appear to be included in the package. To do a thorough review I would like to be able to do a side by side comparison of the two tool's output and compare difference in the result. If you could please provide the outputs for the two tools for the examples you described in the submittal that would be very helpful. (Please call me if you have questions about this).

Wake County initially performed test scenarios with the Wake County Hybrid Tool (WC tool) as well as the Jordan/Falls Tool (JF Tool). At that time, Wake County identified errors and corrected them in the JF Tool used for the comparison. Inputs and results were compared and contrasted for both tools.

The scenarios outlined in the original submittal document titled "Wake County Hybrid Stormwater Design Tool Documentation" were repeated on 12.7.11 using the latest version of the JF Tool provided on 12.5.11 by NCDENR. Please note that JF Tool used for comparison was not an unlocked version, and therefore, we are unable to explain any differences between the two tools.

The comparison results summary and comments are provided in Section 10, *Nutrient Loading Accounting Tool, JF Tool and WC Tool Test Scenario Results*. The excel test scenarios for both tools are also provided in Section 10. Please note that the excel test scenarios are labeled as "Web Access Only" and are not included in the PDF documents.

7. As noted above, when you resubmit, please submit the entire program in one complete pdf document (including all attachments and appendices referenced in the document) so one complete document can be submitted to the EMC for their review. If the file is too large to email you can resubmit the combined document via CD to the address provided below.

All resubmittal documents are listed individually as well as one document on our website.