



North Carolina Department of Environment and Natural Resources

Division of Water Quality  
Coleen H. Sullins  
Director

Beverly Eaves Perdue  
Governor

Dee Freeman  
Secretary

December 8, 2009

Nash County  
DWQ EXP#: 07-0228v4

Nash County  
Attn: Mr. Wayne Moore  
120 W. Washington St.  
Nashville, NC 27856

**Subject Property: Middlesex Corporate Center Infrastructure Project (MODIFICATION)**  
UT to Turkey Creek [030407, 27-86-3-(1), C, NSW]

**Approval of 401 Water Quality Certification and Authorization Certification per the Neuse River Buffer Protection Rules (15A NCAC 2B .0233) with Additional Conditions**

Dear Mr. Moore:

You have our approval, in accordance with the attached conditions and those listed below, to place fill within or otherwise impact 0.17 acres of wetlands, 424 linear feet of perennial stream (400 linear feet permanent impact and 24 linear feet of temporary impact), 18,391 square feet of Zone 1 Neuse River basin protected riparian buffer, and 11,202 square feet of Zone 2 Neuse River basin protected riparian buffer for the purpose of constructing Phase I of the corporate center project, as described within your Pre-construction Notification Application and supporting documentation dated November 24, 2009 and received by DWQ on November 25, 2009 with supplemental documents and modifications received on December 7, 2009. The impacts are covered by: General Water Quality Certification Number 3705 (GC3705). General Certification 3705 allows you to use Nationwide Permit NW39 when issued by the US Army Corps of Engineers (USACE). **This 401 Certification and Buffer Authorization Certification replaces the Certification issued on July 22, 2009.** In addition, you should obtain or otherwise comply with any other required federal, state or local permits before you go ahead with your project including (but not limited to) Erosion and Sediment Control, and Non-discharge regulations. **Also, this approval to proceed with your proposed impacts or to conduct impacts to waters as depicted in your application shall expire upon expiration of the 404 Permit.**

This approval is for the purpose and design that you described in your PCN application (November 24, 2009) with additional information received by DWQ on November 25, 2009 and December 7, 2009. If you change your project, you must notify us and you may be required to send us a new application. If the property (or a lot on the property) is sold, the new owner must be given a copy of this Certification and approval letter and is thereby responsible for complying with all conditions. If total fills for this project (now or in the future) exceed one acre of wetland or 150 linear feet of stream, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h). **This approval requires you to follow the conditions listed in the attached Water Quality Certification (GC3705) and any additional conditions listed below.**

**The Additional Conditions of the Certification are:**

1. Impacts Approved

The following impacts are hereby approved as long as all of the other specific and general conditions of this Certification (and Isolated Wetland Permit) are met. **No other impacts are approved including incidental impacts:**

Impact Type	Amount Approved (Units)	Plan Location or Reference
404 Wetlands	0.17 (acres)	PCN page 5 of 12
Stream (perennial)	400 (linear feet) permanent	PCN page 5 of 12
Stream (perennial)	24 (linear feet) temporary	PCN page 5 of 12
Riparian buffer (Zone 1)	18,391 (square feet)	PCN page 6 of 12
Riparian buffer (Zone 2)	11,202 (square feet)	PCN page 6 of 12

2. No Waste, Spoil, Solids, or Fill of Any Kind

No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts depicted in the Pre-Construction Notification and authorized by this approval letter. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur.

3. No Sediment and Erosion Control Measures in Wetlands and Waters

Sediment and erosion control measures shall not be placed in wetlands or waters without prior approval from the Division. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, design and placement of temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or stream beds or banks, adjacent to or upstream and down stream of the above structures. All sediment and erosion control devices shall be removed and the natural grade restored within two (2) months of the date that the Division of Land Resources or locally delegated program has released the project.

4. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards:

- a. Erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
- b. Design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
- c. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.

5. Construction Stormwater Permit NCG010000

Upon the approval of an Erosion and Sedimentation Control Plan issued by the Division of Land Resources (DLR) or a DLR delegated local erosion and sedimentation control program, an NPDES General stormwater permit (NCG010000) administered by DWQ is automatically issued to the project. This General Permit allows stormwater to be discharged during land disturbing construction activities as stipulated by conditions in the permit. If your project is covered by this permit [applicable to construction projects that disturb one (1) or more acres], full compliance with permit conditions including the sedimentation control plan, self-monitoring, record keeping and reporting requirements are required. A copy of this permit and monitoring report forms may be found at [http://h2o.enr.state.nc.us/su/Forms\\_Documents.htm](http://h2o.enr.state.nc.us/su/Forms_Documents.htm).

#### 6. Diffuse Flow (DWQ Reviewed Plans)

All stormwater shall be directed as diffuse flow at non-erosive velocities through the protected stream buffers and will not re-concentrate before discharging into the stream as identified within 15A NCAC 2B .0233(5)

In an effort to comply with the diffuse flow provisions of the Buffer Rule (15A NCAC 02B .0233(5)), you have provided the DWQ with level spreaders and scour holes on plan sheets dated February 18, 2009 (November 23, 2009 revision) with revised plan sheets received on December 7, 2009. The DWQ believes that, if implemented as per the final plans, the diffuse flow requirement will be achieved. If it is determined at any time that any of the scour holes do not meet their intended purpose of satisfying the diffuse flow requirement, it shall be removed and replaced by an appropriate device approved by the DWQ. At no time shall stormwater from other areas of the proposed development be piped directly through the buffer without prior DWQ written authorization.

Please note that level spreaders and scour holes mentioned above have been approved for temporary use for diffuse flow purposes. As each phase or land parcel comes online for development, the adjacent road surface drainage shall be tied to the storm drainage system for the proposed phase of development in order to be treated by structural BMP(s) that meet 85% TSS and 30% Nitrogen removal efficiencies.

The Operation & Maintenance (O&M) agreement(s) for the proposed diffuse flow provisions signed by Mr. Wayne Moore on June 25, 2009 must transfer with the sale of the land or transfer of responsibility for the stormwater facilities. DWQ must be notified promptly of every transfer.

#### 7. Stormwater Management Plan

A final, written stormwater management plan for each phase of this project shall be submitted to the DWQ 401 Oversight/Express Permitting Unit (2321 Crabtree Boulevard, Suite 250, Raleigh, NC 27604) for review and approval. No land disturbance associated with any phase may be conducted until a stormwater management plan for that phase has been submitted to and approved by the DWQ. No buildings associated with any phase may be occupied until the stormwater management plan is constructed and operational for that phase.

In order to be approved by the DWQ, the stormwater management plan submittal must include a BMP Supplement Form with all required items. The BMPs must be designed to treat runoff from all impervious surfaces, including the road, and must comply with the version of the NC DENR Stormwater BMP Manual that is in effect on the date of the submittal of the stormwater management plan (SMP). The SMP must meet the requirements in the version of SMP Regulations for non-DOT in effect at the time of submittal.

8. Stream Relocation (Mitigation) with Approved Plans

The stream and buffer relocation must be constructed, maintained, and monitored according to the approved plans in the application and modifications to the application. Any repairs or adjustments to the site must be made according to the approved plans or must receive written approval from this Office to make the repairs or adjustments.

The proposed channel relocations (82 linear feet at Crossing #1 and 84 linear feet at Crossing #2) will be constructed in a dry work area and stabilized before stream flows are diverted. Channel relocations will be completed and stabilized, prior to diverting water into the new channel. Vegetation used for bank stabilization shall be limited to native riparian species, and should include establishment of a 50 foot wide vegetated buffer on the side of the channel away opposite from the road fill, to the maximum extent practical. A transitional phase incorporating coir fiber and seedling establishment is allowable. As stated in your application, riprap is allowed on the side of the channel adjacent to the road fill slope, as necessary, to maintain the physical integrity of both the stream and road.

9. Compensatory Mitigation

- a. Compensatory mitigation for 260 linear feet of impact to streams at a replacement ratio of 10:1 (preservation) and/or 1:1 (restoration) is required. Compensatory mitigation for impacts to jurisdictional streams shall be provided by on-site stream preservation (2,400 linear feet) and restoration (20 linear feet) at the Middlesex Corporate Center Conservation Area. 3,900 linear feet of perennial stream will be preserved within the conservation area. Additionally, 20 linear feet of onsite restoration (removal of a farm crossing culvert) is proposed. According to the NCDWQ's records, this site has not gone through the final NCDWQ approval process to determine the amount of credits that will ultimately be available. Nonetheless, based in information provided to the NCDWQ, it appears at this time that there will be sufficient credits once final approval is given to meet the required mitigation for impacts approved with this WQC. Should there be insufficient credits upon final approval of the mitigation site, Nash County will be required to obtain the necessary credits by other means.

**Permanent Stream Impacts in the Neuse River Basin**

Crossing	Permanent Fill in Perennial Stream (linear ft)	Relocation of Perennial Stream (linear ft)	Natural Stream Design (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
1	92	82	40	174	134
3	142	84	100	226	126
Total	234	166	140	400	260

Monitoring stream restoration area shall consist of Level 1 monitoring requirements. Monitoring shall be performed twice annually (summer and winter) for each year of a five year period following completion of the work. Monitoring activities shall consist of reference photos, plant survival determinations, and visual inspection of stream stability. The site shall be monitored for five years, provided at least two bankfull events have occurred during this monitoring period. If two bankfull events have not occurred by the end of the five year monitoring period, the NCDOT may, at the DWQ's discretion, cease further monitoring of the site. The two bankfull events should occur within different monitoring years.

On-site stream restoration and natural channel design shall be constructed in accordance with the design submitted in your November 25, 2009 application, with revisions received by DWQ on December 7, 2009. Please be reminded that as-builts for the completed streams shall be submitted to the North Carolina Division of Water Quality 401 Wetlands Unit with the as-builts for the rest of the project. If the parameters of this condition are not met, then the permittee shall supply additional stream mitigation for the stream relocation and fill impacts. All channel work will be constructed in a dry work area, will be completed and stabilized, and must be approved on site by DWQ staff, prior to diverting water into the new channel. Whenever possible, channel relocations shall be allowed to stabilize for an entire growing season. All enhanced stream segments shall have a 50-foot wide native wooded buffer planted on both sides of the stream unless otherwise authorized by this Certification. A transitional phase incorporating rolled erosion control product (RECP) and appropriate temporary ground cover is allowable.

- b. Compensatory mitigation for impacts to 10,809 square feet of protected riparian buffers (15A NCAC 2B .0233) in Zone 1 and 6,311 square feet of protected riparian buffers in Zone 2 (a total of 17,120 ft<sup>2</sup>) shall be required. A total of 41,894 ft<sup>2</sup> of credit will be required. We understand that you have chosen to debit credits from the Middlesex Corporate Center Conservation Area. According to the NCDWQ's records, this site has not gone through the final NCDWQ approval process to determine the amount of credits that will ultimately be available (390,000 square feet are proposed). Nonetheless, based in information provided to the NCDWQ, it appears at this time that there will be sufficient credits once final approval is given to meet the required mitigation for impacts approved with this WQC. However, should there be insufficient credits upon final approval of the site Nash County will be required to obtain the necessary credits by other means.

Type of Impact	Compensatory Mitigation Required	River and Sub-basin Number
Buffer Zone 1	32,427 (square feet)	Neuse/03020203
Buffer Zone 2	9,467 (square feet)	Neuse/03020203
Total	41,894 (square feet)	

The DWQ has determined that your proposal to preserve 390,000 sf will satisfy this mitigation requirement if the following conditions are met. A future utility easement crossing of the riparian buffer (10,000 sf) and BMP outlet impacts to the riparian buffer (55,340 sf) shall be deducted from the 390,000 sf preservation.

- i. Deed Notifications – Deed notifications or similar mechanisms shall be placed on the lot to assure compliance with the conditions of this variance approval. These mechanisms shall be put in place at the time lots or properties are recorded. The Deed Notifications shall include the following paragraph.

"The areas shown on the recorded plat as Riparian Buffer Protection Areas shall be maintained in perpetuity in their natural or mitigated condition. No person or entity shall fill, grade, excavate, or perform any other land disturbing activities; nor cut, remove, or harm any vegetation; nor construct any structures or add any additional impervious surfaces, on such protected areas without written authorization from the Division of Water Quality (DWQ) or compliance with the Riparian Buffer Protection Rule (15A NCAC 2B .0233). This covenant is intended to ensure continued compliance with authorizations issued by the State of North Carolina, Division of Water Quality, GC3705, and therefore may be enforced by the State of North Carolina. This covenant is to run with the land, and shall be binding on the Owner, and all parties claiming under it."

- ii. Riparian Buffer Protection Areas – The “Riparian Buffer Protection Areas” shall include all retained riparian buffers protected under 15A NCAC 02B .0233 (*buffer mitigation rule*) and the “Additional Buffer Preservation Area” identified on the plans (Conservation Easement Boundary Plan – received by DWQ on December 7, 2009) provided within your buffer authorization request.

#### 10. Riparian Buffers

All riparian buffers impacted by the placement of temporary fill or clearing activities shall be restored to the preconstruction contours and revegetated. Maintained buffers shall be permanently revegetated with non-woody species by the end of the growing season following completion of construction. For the purpose of this condition, maintained buffer areas are defined as areas within the transportation corridor that will be subject to regular maintenance activities including mowing. The area with non-maintained buffers shall be permanently revegetated with native woody species before the next growing season following completion of construction.

#### 11. Protective Fencing

The outside buffer, wetland or water boundary and along the construction corridor within these boundaries approved under this authorization shall be clearly marked with orange warning fencing (or similar high visibility material) for the areas that have been approved to infringe within the buffer, wetland or water prior to any land disturbing activities to ensure compliance with 15A NCAC 2B .0233 and GC 3705.

#### 12. Sewer Systems

The project shall comply with 15A NCAC 2H .0219(i)(2)(G) and all other State, Federal and local sewer system regulations.

#### 13. Notification of Construction

The applicant and/or authorized agent shall contact the DWQ Express Review Program in writing at the letterhead address within ten (10) days of the commencement of construction.

#### 14. Certificate of Completion

Within thirty (30) days of the completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return the attached certificate of completion to the 401 Oversight/Express Review Permitting Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650.

The applicant/permittee and their authorized agents shall conduct all activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act), and any other appropriate requirements of State and Federal Law. If the Division determines that such standards or laws are not being met, including failure to sustain a designated or achieved use, or that State or Federal law is being violated, or that further conditions are necessary to assure compliance, then the Division may reevaluate and modify this General Water Quality Certification.

Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. The authorization to proceed with your proposed impacts or to conduct

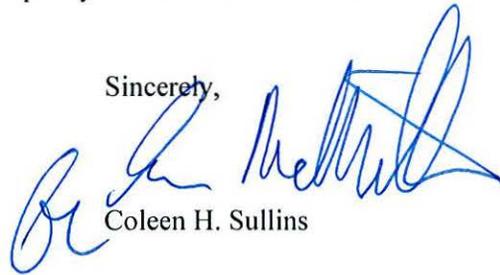
impacts to waters as depicted in your application and as authorized by this Certification, shall expire upon expiration of the 404 or CAMA Permit.

If you do not accept any of the conditions of this Certification (associated with the approved wetland or stream impacts), you may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. To ask for a hearing, send a written petition, which conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC, 27699-6714. This certification and its conditions are final and binding unless you ask for a hearing.

Any disputes over determinations regarding this Authorization Certificate (associated with the approved buffer impacts) shall be referred in writing to the Director for a decision. The Director's decision is subject to review as provided in Articles 3 and 4 of G.S. 150B.

This letter completes the review of the Division of Water Quality under Section 401 of the Clean Water Act and the Neuse riparian buffer protection rule as described within 15A NCAC 2B .0233. If you have any questions, please telephone Lia Myott Gilleski or Joseph Gyamfi at 919-733-1786.

Sincerely,



Coleen H. Sullins

CHS/cbk/lmg

Enclosures: Certificate of Completion  
GC 3705

cc: James Lastinger, USACE Raleigh Regulatory Field Office  
Lauren Witherspoon, DWQ Raleigh Regional Office  
File Copy  
DLQ Raleigh Regional Office  
Mr. Mike Stocks, Stocks Engineering, 1100 Eastern Ave., PO Box 1108, Nashville, NC 27856  
Ms. Leilani Paugh, NCDOT, PD&EA Natural Environment Unit, 1598 Mail Service Center,  
Raleigh, NC 27699-1598

