



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

June 30, 2004

MEMORANDUM TO: Mr. J. M. Mills, P.E.
Division 7 Engineer

FROM: *John* Philip S. Harris, III, P.E., Manager *Mal Alexander*
Office of the Natural Environment
Project Development and
Environmental Analysis Branch

SUBJECT: Guilford County; Greensboro Western Urban Loop; T.I.P.
Number U-2524 AB & AC; State Project No. 8U492101; F. A.
Project No. STPNHF-NHF-124-1(1)

Attached is the U. S. Army Corps of Engineers Permit Modification and the general conditions for the DWQ 401 Water Quality Certification for the above referenced project.

PSH/ma

Attachment

cc: Mr. Art McMillan, P.E.
Mr. Omar Sultan
Mr. Jay Bennett, P.E.
Mr. David Chang, P.E.
Mr. Randy Garris, P.E.
Mr. Greg Perfetti, P.E.
Mr. Mark Staley
Mr. John F. Sullivan, III, FHWA
Mr. Jerry Parker, Division 7 DEO

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

TELEPHONE: 919-733-3141
FAX: 919-733-9794

WEBSITE: WWW.DOT.ORG

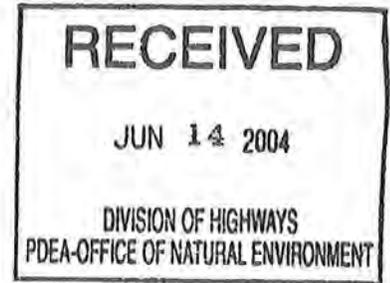
LOCATION:
TRANSPORTATION BUILDING
1 SOUTH WILMINGTON STREET
RALEIGH NC



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1890
WILMINGTON, NORTH CAROLINA 28402-1890

June 9, 2004



Regulatory Division

SUBJECT: Action ID 200321137; TIP No. U-2524 AB & AC

Dr. Gregory J. Thorpe, Ph.D.
Environmental Management Director, PDEA
N.C. Department of Transportation
1548 Mail Service Center
Raleigh, NC 27699-1548

Dear Dr. Thorpe:

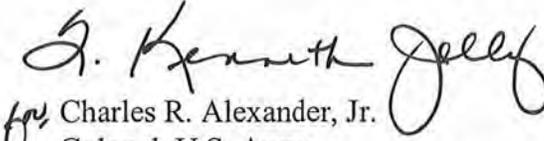
Reference the Department of the Army permit issued on November 10, 2003, to authorize the discharge of dredged and fill material into the waters of United States, for construction of Sections AB and AC of the Greensboro Western Urban Loop (TIP No. U-2524 AB and AC), impacting Long Branch, Reddicks Creek and its unnamed tributaries, unnamed tributaries of Bull Run Creek, and Hickory Creek, and adjacent wetlands, from I-85, to I-40, on the southwest side of Greensboro, in Guilford County, North Carolina. Reference also your April 20, 2004 letter requesting modification of the permit, to authorize construction associated with the relocation of a lift station and sewer line. The proposed relocation would result in temporary impacts at two stream crossings, one at Long Branch and another crossing of an unnamed tributary of Long Branch.

We have reviewed your proposal and have determined that the additional impacts to waters of the United States are minor (0.01 acre of temporary stream channel impacts; with the new sewer line buried below grade and the existing stream channels restored to their original grade and condition), and an additional public notice is not necessary. Therefore, the permit is hereby modified to authorize the relocation of the lift station and sewer line as shown in the attached drawing. No additional mitigation will be required for this modification.

It is understood that all other conditions of the permit, including the expiration date, remain applicable. Please note that the current permit expiration date is December 31, 2006.

If you have questions, please contact John Thomas of the Raleigh Regulatory Field Office, at telephone (919) 876-8441, extension 23.

Sincerely,


for Charles R. Alexander, Jr.
Colonel, U.S. Army
District Engineer

Enclosure

Copies Furnished (without enclosure):

Ms. Emily Lawton
Federal Highway Administration
310 New Bern Ave., Rm. 410
Raleigh, North Carolina 27601-1442

Mr. John Dorney
Division of Water Quality
North Carolina Department of
Environment and
Natural Resources
1650 Mail Service Center
Raleigh, NC 27699-1650



Michael F. Easley, Governor
William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Alan W. Klimek, P.E., Director
Division of Water Quality
Coleen H. Sullins, Deputy Director
Division of Water Quality

June 7, 2004



Mr. Gregory J. Thorpe, Ph.D., Environmental Director
NCDOT Planning and Environmental Branch
1548 Mail Service Center
Raleigh, NC, 27699-1548

Dear Dr. Thorpe:

Re: MODIFICATION TO Water Quality Certification Pursuant to §401 of the Federal Clean Water Act,
Greensboro Western Urban Loop, from I-85 south of Groometown to south of I-40 Interchange,
Guilford County.
F.A. Project No. STPNHF-NHF-124-1(1); State Project No. 8.U492101
TIP No. U-2524 AB/AC and AB Part I
DWQ Project No. 030909

Attached hereto is a copy of the Modification to Certification No. 3435 issued to The North Carolina
Department of Transportation dated June 7, 2004.

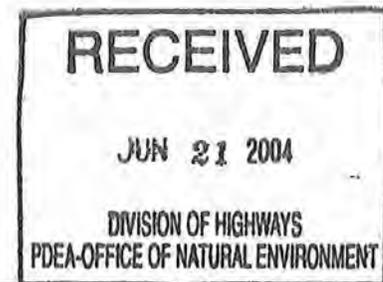
If we can be of further assistance, do not hesitate to contact us.

Sincerely,

Alan W. Klimek, P.E.

Attachments

cc: Wilmington District Corps of Engineers
Eric Alsmeyer, USACE Raleigh Field Office
Sue Homewood, NCDWQ Winston-Salem Regional Office
Christopher Militscher, US Environmental Protection Agency – Region IV
NC Wetlands Restoration Program
William D. Gilmore, P.E., Transition Manager, NC DENR Division of Ecosystem Enhancement
Mike Mills, PE, Division Engineer, NCDOT Division 7
Central Files
File Copy



NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H, .0500. This Certification authorizes the NCDOT to incur the following permanent impacts:

- 4.14 acres of wetlands through fill, excavation and mechanized clearing;
- 3.92 acres of fill in ponds;
- 4,610 linear feet of on-site stream relocation
- 6,919 linear feet of jurisdictional stream loss;
- 20.56 acres of Zone 1 Randleman Lake Riparian Buffers
- 11.86 acres of Zone 2 Randleman Lake Riparian Buffers

The 0.10 acre additional impact to Zone 1 and the 0.07 acre additional impact to Zone 2 Randleman Lake Riparian Buffer requested in the April 30, 2004 Individual Permit Modification request are included in the above Zone 1 and Zone 2 Randleman Lake Riparian Buffer area impact values.

The U-2524 AB/AC and AB Part I projects shall be constructed pursuant to the application dated July 21, 2003 and the Modification requests dated October 24, 2003 and April 30, 2004 to construct the Greensboro Western Urban Loop from I-85 south of Groometown to south of I-40 Interchange in Guilford County.

The Application provides adequate assurance that the discharge of fill material into the waters of the state with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your Application. All work authorized by this Certification must be done in strict compliance with the plans attached to the Application. If this project changes, incurring additional impacts to streams, wetlands or buffers, you are required to notify the DWQ *in writing*, and you may be required to submit a new application. Additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion Control, Non-discharge and Water Supply watershed regulations. This Certification shall expire three (3) years from the date of the cover letter from DWQ or on the same day as the expiration date of the corresponding US Army Corps of Engineers Permit, whichever is later.

Condition(s) of Certification:

1. Construction shall be performed so that no violations of state water quality standards, statutes, or rules occur.
 - a. 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 water quality standards.
 - b. The erosion and sediment control measures for the U-2524AB/AC and AB Part I projects must equal or exceed the proper design, installation, operation and maintenance outlined in the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*. These 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 projects included under this Certification.

June 7, 2003

- c. For borrow pit sites, the erosion and sediment control measures must equal or exceed the proper design, installation, operation and maintenance outlined in the most recent version of the *North Carolina Surface Mining Manual*.
 - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
 - e. NCDOT shall strictly adhere to North Carolina regulations entitled, *Design Standards in Sensitive Watersheds* (15A NCAC 4B .0124 (b) –(e) *only*), for activities undertaken in all waters classified as WS (Water Supply) and draining to the Critical Area, including: Hickory Creek, Reddick's Creek and Bull Run, as well as their unnamed tributaries. NCDOT will *not* be required to comply with 15A NCAC 2B .0124(a), which restricts clearing to 20 acres at a time.
2. For streams *in* the Randleman Lake Watershed (Hickory Creek, Reddick's Creek and Bull Run and their unnamed tributaries), stormwater shall be directed to flow as diffuse flow at non-erosive velocities across the stream buffers using level spreaders, retention basins, pre-formed scour holes or other site-appropriate devices. For all streams that are *not* in the Randleman Lake watershed (South Buffalo Creek and its unnamed tributaries), stormwater shall be transported by vegetated conveyance before discharge into the streams. In either case, stormwater shall not be routed to flow directly into streams. Existing wooded stream buffers shall not be mowed in order to allow them to provide diffuse stormwater flow and/or streambank stabilization.
 3. Sediment and erosion control measures shall not be placed in wetlands or waters to the maximum extent practicable. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored within 30 days after the project has been released.
 4. The outside buffer, wetland or water boundary as well as along the construction corridor within these boundaries approved under this authorization shall be clearly marked by orange fabric fencing 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 .0250.
 5. NCDOT and its contractors and/or agents shall not excavate, fill, or perform mechanized land clearing at any time in the construction or maintenance of this project within waters and/or wetlands, except as authorized by this Certification, or any modification to this Certification. There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this Certification without appropriate modification. If this occurs, compensatory mitigation will be required since it is a direct impact from road construction activities.
 6. Excavation of stream crossings should be conducted in the dry unless demonstrated by the applicant or its authorized agent to be unfeasible. Sandbags, cofferdams, flexible pipe, or other diversion structures should be used to minimize excavation in flowing water.
 7. Live or fresh concrete shall not come into contact with waters of the state until the concrete has hardened.
 8. Discharging hydroseeding mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is strictly prohibited.

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9. The natural dimension, pattern and profile of the stream above and below the crossing should not be modified by widening the stream channel or changing the depth of the stream.
10. The removal of vegetation in riparian areas should be minimized. NCDOT is encouraged to use existing on-site vegetation and materials for stream bank stabilization and to minimize the use of rip rap. Riprap shall not be placed in the stream bottom.
11. Riparian vegetation, using native trees and shrubs, must be re-established within the construction limits of the project by the end of the growing season following completion of construction to reestablish the riparian zone and to provide long-term erosion control.
12. Placement of culverts and other structures in waters, streams, and wetlands shall be placed below the elevation of the streambed to allow low flow passage of water and aquatic life unless it can be shown to DWQ that providing passage would be impractical. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium shall be maintained if requested in writing by DWQ.
13. Heavy equipment should be operated from the bank rather than in the stream channel unless demonstrated by the applicant or its authorized agent to be unfeasible. All mechanized equipment operated near surface waters should be inspected and maintained regularly to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids or other toxic substances.
14. *On-Site Stream Relocations:* The five on-site stream relocations (listed below) shall utilize natural channel design:
 - AB Part 1 Site 7 from Sta. 11+60 to Sta. 11+67 –40SB REV-
 - AB Part 1 Site 17 from Sta. 11+00 to Sta. 13+00 –40 SB REV-
 - AB Site 3 from Sta. 34+00 to Sta. 37+10 –L-
 - AC Site 1 from Sta. 57+80 Lt to Sta. 58+57 Rt –L-
 - AC Site 2BA from Sta. 101+80 –L- to Sta. 12+70 –Ramp D-
 - The relocations must be constructed in a dry work area, and stabilized before the stream flow is diverted. Each stream relocation shall be completed and stabilized prior to diverting water into the new channels. Water shall not be turned into the relocated channel until the USACE and the NCDWQ have conducted a site review of the newly constructed stream channel. Vegetation used for bank stabilization shall be limited to native woody species, and should include establishment of a 30-foot wide wooded and an adjacent 20-foot wide vegetated buffer on both sides of each relocated channel to the *maximum extent practical*. A transitional phase incorporating coir fiber and seedling establishment is allowable. Rip-rap may be allowed if it is necessary to maintain the physical integrity of the stream, but the Applicant must provide written justification and the calculations used to determine the extent of rip-rap coverage requested.
 - If any of the relocated channels or the associated riparian area has been determined to be unstable, the stream shall be repaired or stabilized using only natural channel design techniques. Additionally, the vegetation in the riparian area shall be maintained and/or

- replaced according to the approved plans. Rip-rap and other hard structures may *only* be used if required by the Division of Land Resources or a Delegated Local Program.

- Additionally, all repair designs must be submitted to and receive written approval from the Division before the repair work is performed.
- Monitoring for geomorphological stability shall be performed for each relocated channel in accordance with accepted protocols established by US Army Corps of Engineers (USACE) and NCDWQ.
- The relocated channels and associated riparian buffer areas shall be preserved in perpetuity through a deed notification, preservation easement or some other legally binding mechanism or agreement. The easements or other legally binding mechanisms or agreements must be in place before any construction impacts approved under this Certification can take place. The NCDOT Division 9 Right of Way Office shall provide NCDWQ with evidence that the additional right of way has been purchased within two (2) months of issuance of the US Army Corps of Engineers 404 Permit.
- The on-site stream relocation must be completely constructed and maintained according to the plans approved by the Division before the Greensboro Western Urban Loop (TIP U-2524 AB/AC and AB Part 1) is opened and any mitigation credit is given.

15. *Mitigation:* Compensatory mitigation shall be the same as that approved by the US Army Corps of Engineers as long as the mitigation required equals a ratio of 1:1 restoration or creation of lost wetland acres as described in 15A NCAC 2H.0506 (h)(6).

Wetland Mitigation

Compensatory mitigation for 4.14 acres of wetland impacts shall be provided through the following schemes:

- NC Wetlands Restoration Program (WRP) has agreed to provide compensatory mitigation for 2.82 acres of wetland impacts incurred for construction of U-2524AB Part 1. DWQ acknowledges that this payment has been made under the §401 WQC for TIP Project No. I-2402 (reference WRP letter of September 6, 1999).
- NCDOT proposes to use 1.32 acres of mitigation from Sandy Creek Mitigation Site in Randolph County (HU 03030003). This site has been approved by NCDWQ.
- NCDOT proposes to use preservation credits from Blue Tract Mitigation Site in Moore County (HU 03030004) at a 12:1 ratio for 7.92 acres of mitigation. This site and the mitigation ratios have previously been approved by Federal and State resource agencies.

Randleman Riparian Buffer Mitigation

NC Division of Ecological Enhancement (DEE) has agreed to provide compensatory mitigation in a letter dated September 25, 2003. NCDOT will be paying into the WRP for the DEE to perform the mitigation work. The buffer impacts and mitigation are as follows:

<i>Zone</i>	<i>Impacts (ac.)</i>	<i>Mitigation (ac.)</i>
1	18.09	45.96
2	10.23	14.30
		60.26 ac. total

The Modification request dated April 30, 2004 requests additional impacts to the Randleman Buffer. NCDOT proposes to mitigate for the additional 0.01 acre of impact to Zone 1 and the additional 0.07 acre of impact to Zone 2 through payment into the NC Wetland Restoration Program for the DEE to perform the mitigation work. NCDWQ is not in receipt of a letter from DEE accepting buffer mitigation for these impacts. No additional buffer impacts are authorized under this modification until NCDWQ is in receipt of a letter from DEE accepting buffer mitigation for this project.

Stream Mitigation

NCDOT proposes to use the following sites as compensatory mitigation for 7,171 linear feet of stream impacts incurred for construction of U-2524AB Part 1:

- Woodlyn Way Mitigation Site
- Tick Creek Mitigation Site
- UT to Bear Creek Mitigation Site

<i>Site Name</i>	<i>Available Mit'n.</i>	<i>Mitigation Used</i>	<i>Remaining Mit'n.</i>
Woodlyn Way	1,195	1,195	0
Tick Creek	4,190	4,190	0
UT Bear Creek	3,850	1,806	2,044
Total	9,235	7,191	2,044

- NCDOT shall provide 100% design plans for the UT to Bear Creek site within three (3) months of issuance of this Modification.

In accordance with 15A NCAC 2R.0500, this contribution will satisfy NC Division of Water Quality's compensatory mitigation requirements under 15A NCAC 2H.0506(h). Until the WRP receives and clears your payments for the Randleman buffer mitigation, wetland or stream fill shall not occur. The payment to NCWRP shall be sent within two (2) months of issuance of the 404 permit.

16. Two copies of the final construction drawings shall be furnished to NCDWQ prior to the pre-construction meeting. Written verification shall be provided that the final construction drawings comply with the attached permit drawings contained in the Application dated July 21, 2003.
17. Upon completion of the project, the NCDOT shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed. The responsible party shall complete the attached form and return it to the 401/Wetlands Unit of the Division of Water Quality upon completion of the project.
18. NCDOT and its authorized agents shall conduct its 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 law and Federal law. If DWQ determines that such standards or laws are not being met (including the 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, DWQ may reevaluate and modify this certification to include conditions appropriate to assure compliance with such standards and requirements in accordance with 15A NCAC 2H.0507(d). Before modifying the certification, DWQ shall notify NCDOT and the US Army Corps of Engineers, provide public notice in accordance with 15A

June 7, 2004

19. NCAC 2H.0503 and provide opportunity for public hearing in accordance with 15A NCAC 2H.0504. Any new or revised conditions shall be provided to NCDOT in writing, shall be provided to the United States Army Corps of Engineers for reference in any permit issued pursuant to Section 404 of the Clean Water Act, and shall also become conditions of the 404 Permit for the project.

NCDOT shall require its contractors (and/or agents) to comply with all of the terms of this Certification, and shall provide each of its contractors (and/or agents) a copy of this Certification.

Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal Permit. This Modification and its conditions supercede all previous Certifications. This Certification shall expire upon the expiration of the 404 Permit.

If you do not accept any of the conditions of this certification, 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 that conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. This Certification and its conditions are final and binding unless you ask for a hearing.

This the 7th day of June 2004

DIVISION OF WATER QUALITY

Alan W. Klimek, P.E.

WQC No. 3435



DWQ Project No.: _____
Applicant: _____

County: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

Certificate of Completion

Upon 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 this certificate to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650. This form may be returned to DWQ by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Engineer's Certification

_____ Partial _____ Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project, for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____

Date _____