



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

April 5, 2005

MEMORANDUM TO: Mr. Jon G. Nance, P.E.
Division 5 Engineer

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

SUBJECT: Wake County; Division 5; Replace Bridge No. 317 on SR 1404 over
Middle Creek; State Project No. 8.2407801; TIP Project No. B-3703

Attached is the 401 Water Quality Certification of the Neuse River Buffer Rules Authorization Certificate. This is in addition to the US Army Corps of Engineers Nationwide Permit No. 23 and 33 permits distributed earlier. All environmental permits have been received for the construction of this project.

PSH/gyb

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. Chris Murray, Division 5 DEO
Ms. Cathy Houser, PE

PROJECT COMMITMENTS

Replace Bridge No. 317
on SR 1404 over Middle Creek
Federal Aid Project BRZ-1404(4)
State Project 8.2407801
TIP No. B-3703

In addition to the standard Nationwide Permit 23 and 33 conditions, the General Nationwide Permit Conditions, Section 404 Only Conditions, Regional Conditions, State Consistency Conditions, NCDOT's Guidelines for Best Management Practices for the Protection of Surface Waters, NCDOT's Guidelines for Best Management Practices for Bridge Demolition and Removal, General Certification Conditions, and the Section 401 Conditions of Certification, the following Environmental Commitments have been agreed to by NCDOT:

Conditions Developed Through Project Development and Design

Highway Design Branch

Two 48-inch pipes will be installed approximately 400 feet north of the bridge to enhance wetland nourishment

Conditions Developed Through Permitting

PDEA-Office of Natural Environment

NCDOT shall conduct an in-stream survey for mussels just prior to the construction let date.

Structures Unit/Division 5

NCDOT shall not construct bridge deck drains or weep holes that allow stormwater runoff directly into Middle Creek.

Division 5

NCDOT's Resident Engineer shall alert the Biological Survey Unit (BSU) two months prior to this project's contract award date so that the BSU can implement the required mussel survey.

NCDOT's Resident Engineer shall notify the NC Wildlife Resources Commission, Nongame and Protected Species Branch, and the US Fish and Wildlife Service, in writing before project construction starts.

NCDOT shall not perform either clearing or grubbing for this project from November 15 to April 1 of any year.

NCDOT shall mark 50 foot buffer zone on both sides of the stream as an "Environmentally Sensitive Area" (ESA) on the construction plans.

Page 1 of 1

NCDOT shall progress with work in a continuous manner until complete, once grading operations begin in the ESAs

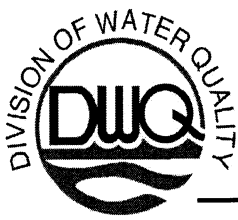
Roadside Environmental Unit/Division 5

NCDOT shall perform seeding and mulching immediately following grade establishment.

NCDOT shall perform stage seeding on cut and fill slopes as grading progresses.

NCDOT shall adhere to Design Standards in Sensitive Watersheds (15A NCAC 04B.0124) for this project.

NCDOT shall have sediment and erosion controls in place prior to land clearing activities. NCDOT shall not allow any sediment from either bridge demolition or construction activities to enter the flowing stream.

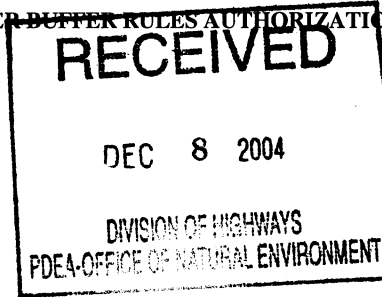


Handwritten signature

December 7, 2004
Wake County
DWQ Project No. 041738
TIP No. B-3703

APPROVAL of 401 Water Quality Certification and NEUSE RIVER BUFFER RULES AUTHORIZATION CERTIFICATE

Dr. Gregory J. Thorpe, PhD, Manager
Planning and Environmental Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina, 27699-1548



Dear Dr. Thorpe:

You have our approval, in accordance with the conditions listed below, for the following impacts for the purpose of replacing Bridge No. 317 over Middle Creek on SR 1404 in Wake County.

Impact Locations	Stream Impacts (Ac)	Fill in Surface Water (Ac)	Riparian Buffer Impacts (Square Feet)	Wetland Impacts-Fill (Ac)	Wetland Impacts-Mechanized Clearing (Ac)
Site 1 (STA 17+44 to 18+91)	0.01	0.07	6,581 (4,299 Zone 1 + 2,282 Zone 2)	0.0002	0.01

The project shall be constructed in accordance with your application dated received October 28, 2004. After reviewing your application, we have decided that the stream impacts and wetland fills described are covered by General Water Quality Certification Numbers 3403 and 3366. This certification corresponds to the Nationwide Permit 23 and the Nationwide Permit 33 issued by the Corps of Engineers. This approval is also valid for the Neuse River Buffer Rules (15A NCAC 2B .0233). In addition, you should acquire any other federal, state or local permits before you proceed with your project including (but not limited to) Sediment and Erosion Control, Non-Discharge and Water Supply Watershed regulations. This approval will expire with the accompanying 404 permit, unless otherwise specified in the Water Quality Certification.

This approval is valid solely for the purpose and design described in your application (unless modified below). Should your project change, you must notify the DWQ and submit a new application. If 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 the conditions. If total wetland fills for this project (now or in the future) exceed one acre, or of total impacts to streams (now or in the future) exceed 150 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you must adhere to the conditions listed in the attached certification.

- 1.) 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.
- 2.) All stormwater runoff shall be directed to sheetflow through stream buffers at nonerosive velocities, unless approved otherwise by this certification.

- 3.) During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers.
- 4.) Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
- 5.) The dimension, pattern and profile of the stream above and below the crossing should not be modified by widening the stream channel or reducing the depth of the stream. Disturbed floodplains and streams should be restored to natural geomorphic conditions.
- 6.) Any riprap used must not interfere with thalweg performance and aquatic life passage during low flow conditions.
- 7.) All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials.
- 8.) Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
- 9.) The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.
- 10.) There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit. Should waste or borrow sites be located in wetlands or stream, compensatory mitigation will be required since it is a direct impact from road construction activities.
- 11.) Pursuant to NCAC15A 2B.0233(6), sediment and erosion control devices shall not be placed in Zone 1 of any Neuse Buffer without prior approval by the NCDWQ. At this time, the NCDWQ has approved no sediment and erosion control devices in Zone 1, outside of the approved project impacts, anywhere on this project. Moreover, sediment and erosion control devices shall be allowed in Zone 2 of the buffers provided that Zone 1 is not compromised and that discharge is released as diffuse flow.
- 12.) Heavy equipment must be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into the stream.
- 13.) No live or fresh concrete shall come into contact with waters of the state until the concrete has hardened
- 14.) The presence of equipment in the channels must be minimized. Under no circumstances must rock, sand or other materials be dredged from the wetted stream channel under authorization of this permit, except in the immediate vicinity of the culverts.
- 15.) All work shall be performed during low or normal flow conditions.
- 16.) All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1.
- 17.) A copy of this Water Quality Certification shall be posted on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.
- 18.) All protected riparian buffers impacted by the placement of temporary fill or clearing activities shall be restored to the preconstruction contours and revegetated with native woody species upon completion of the project

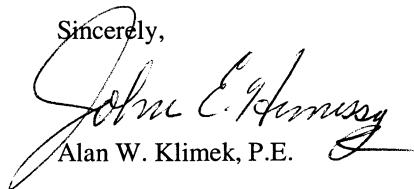
construction. A post-construction as-built with the restoration activities included shall be submitted to the DWQ no later than 60 days after the project is closed out by the Department of Transportation.

- 19.) If the old bridge is removed, no discharge of bridge material into surface waters is preferred. Strict adherence the Corps of Engineers guidelines for bridge demolition will be a condition of the 401 Water Quality Certification.

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, P.O. Box 27447, Raleigh, N.C. 27611-7447. This certification and its conditions are final and binding unless you ask for a hearing.

This letter completes the review of the Division of Water Quality under Section 401 of the Clean Water Act. If you have any questions, please contact Nicole Thomson at 919-715-3415.

Sincerely,



Alan W. Klimek, P.E.

JEH/njt

Attachment

cc: Wilmington District, US Army Corps of Engineers
Mr. Eric Alsmeyer, US Army Corps of Engineers, Raleigh Field Office
Mr. Jon G. Nance, P.E., Division 5 Engineer, 2612 N. Duke Street, Durham, NC 27704
Mr. Chris Murray, Division 5 Environmental Officer, 2612 N. Duke Street, Durham, NC 27704
NC DWQ Raleigh Regional Office
Central Files
File Copy



DWQ Project No.: _____ County: _____

Applicant: _____

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, 1621 Mail Service Center, Raleigh, NC, 27699-1621. 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 and Buffer Rules, 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 and Buffer Rules, 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 and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____

Date _____

WQC #3403

GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE FOR CORPS OF ENGINEERS NATIONWIDE PERMIT NUMBER 23 (APPROVED CATEGORICAL EXCLUSIONS) AND RIPARIAN AREA PROTECTION RULES (BUFFER RULES)

This General 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 Regulations in 15A NCAC 2H, Section .0500 and 15A NCAC 2B .0200 for the discharge of fill material to waters and wetland areas as described in 33 CFR 330 Appendix A (B) (23) and for the Riparian Area Protection Rules (Buffer Rules) in 15A NCAC 2B .0200. This Certification replaces Water Quality Certification Number 2670 issued on January 21, 1992, Certification Number 2734 issued on May 1 1993, Certification Number 3107 issued on February 11, 1997 and Water Quality Certification Number 3361 issued March 18, 2002. This WQC is rescinded when the Corps of Engineers re-authorizes Nationwide Permit 23 or when deemed appropriate by the Director of the DWQ.

The State of North Carolina certifies that the specified category of activity will not violate applicable portions of Sections 301, 302, 303, 306 and 307 of the Public Laws 92-500 and 95-217 if conducted in accordance with the conditions hereinafter set forth.

Conditions of Certification:

1. Proposed fill or substantial modification of wetlands or waters (including streams) under this General Certification requires notification to the Division of Water Quality. Two copies shall be submitted to DWQ at the time of notification in accordance with 15A NCAC 2H .0501(a). Written concurrence from DWQ is not required unless any standard conditions of this Certification cannot be met;
2. Appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" or the "North Carolina Surface Mining Manual" whichever is more appropriate (available from the Division of Land Resources (DLR) in the DENR Regional or Central Offices) shall be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to assure compliance with the appropriate turbidity water quality standard;
3. In accordance with 15A NCAC 2H .0506 (h) compensatory mitigation may be required for impacts to 150 linear feet or more of streams and/or one acre or more of wetlands. In addition, buffer mitigation may be required for any project with Buffer Rules in effect at the time of application for buffer impacts resulting from activities classified as "allowable with mitigation" within the "Table of Uses" section of the Buffer Rules or require a variance under the Buffer Rules. A determination of buffer, wetland and stream mitigation requirements shall be made for any Certification for this Nationwide Permit. The most current design and monitoring protocols from DWQ shall be followed and written plans submitted for DWQ approval as required in those protocols. When compensatory mitigation is required for a project, the mitigation plans must be approved by DWQ in writing before the impacts approved by the Certification occur. The mitigation plan must be implemented and/or constructed before any permanent building or structure on

WQC #3403

site is occupied. In the case of public road projects, the mitigation plan must be implemented before the road is opened to the travelling public;

4. Compensatory stream mitigation shall be required at a 1:1 ratio for not only perennial but also intermittent stream impacts equal to or exceeding 150 feet and that require application to DWQ in watersheds classified as ORW, HQW, Tr, WS-I and WS-II unless the project is a linear, publicly-funded transportation project, which has a 150-foot per-stream impact allowance;
5. All sediment and erosion control measures placed in wetlands or waters shall be removed and the original grade restored within two months after the Division of Land Resources has released the project;
6. Measures shall be taken to prevent live or fresh concrete from coming into contact with freshwaters of the state until the concrete has hardened;
7. In accordance with North Carolina General Statute Section 143-215.3D(e), any request for written concurrence for a 401 Water Quality Certification must include the appropriate fee. If a project also requires a CAMA Permit, one payment to both agencies shall be submitted and will be the higher of the two fees;
8. Impacts to any stream length in the Neuse, Tar-Pamlico, Randleman and Catawba River Basins (or any other river basins with Riparian Area Protection Rules [Buffer Rules] in effect at the time of application) requires written concurrence from DWQ in accordance with 15A NCAC 2B.0200. Activities listed as "exempt" from these rules do not need to apply for written concurrence under this Certification. New development activities located in the protected 50-foot wide riparian areas (whether jurisdictional wetlands or not) within the Neuse, Tar-Pamlico, Randleman and Catawba River Basins shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B .0200. All new development shall be located, designed, constructed, and maintained to have minimal disturbance to protect water quality to the maximum extent practicable through the use of best management practices;
9. Additional site-specific conditions may be added to projects for which written concurrence is required or requested under this Certification in order to ensure compliance with all applicable water quality and effluent standards;
10. Concurrence from DWQ that this Certification applies to an individual project shall expire three years from the date of the cover letter from DWQ or on the same day as the expiration date of the corresponding Nationwide and Regional General Permits, whichever is sooner;
11. When written concurrence is required, the applicant is required to use the most recent version of the Certification of Completion form to notify DWQ when all work included in the 401 Certification has been completed.

Non-compliance with or violation of the conditions herein set forth by a specific fill project shall result in revocation of this Certification for the project and may result in criminal and/or civil penalties.

WQC #3403

The Director of the North Carolina Division of Water Quality may require submission of a formal application for individual certification for any project in this category of activity that requires written concurrence under this certification, if it is determined that the project is likely to have a significant adverse effect upon water quality or degrade the waters so that existing uses of the wetland, stream or downstream waters are precluded.

Public hearings may be held for specific applications or group of applications prior to a Certification decision if deemed in the public's best interest by the Director of the North Carolina Division of Water Quality.

Effective date: 28 March 2003

DIVISION OF WATER QUALITY

By

A handwritten signature in black ink that reads "Alan Klimek". The signature is written in a cursive style with a prominent loop at the end of the last name.

Alan W. Klimek, P.E.

Director

WQC # 3403

**GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE
FOR CORPS OF ENGINEERS NATIONWIDE PERMIT NUMBER 33
(TEMPORARY CONSTRUCTION, ACCESS AND DEWATERING)
AND RIPARIAN AREA PROTECTION RULES (BUFFER RULES)**

This General 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 Regulations in 15A NCAC 2H, Section .0500 and 15A NCAC 2B .0200 for the discharge of fill material to waters and wetland areas as described in 33 CFR 330 Appendix A (B) (33) of the Corps of Engineers regulations (i.e., Nationwide Permit No. 33) and for the Riparian Area Protection Rules (Buffer Rules) in 15A NCAC 2B .0200. The category of activities shall include any fill activity for temporary construction, access and de-watering. This Certification replaces Water Quality Certification Number 2727 issued on May 1, 1992 and Certification Number 3114 issued on February 11, 1997. This WQC is rescinded when the Corps of Engineers reauthorize Nationwide Permit 33 or when deemed appropriate by the Director of the DWQ.

The State of North Carolina certifies that the specified category of activity will not violate appropriate portions of Sections 301, 302, 303, 306 and 307 of the Public Laws 92-500 and 95-217 if conducted in accordance with the conditions hereinafter set forth.

Conditions of Certification:

1. These activities do not require written concurrence from the Division of Water Quality as long as they comply with all conditions of this General Certification. If any condition in this Certification cannot be met, application to and written concurrence from DWQ are required. Also, Condition No. 2 is applicable to all streams in basins with riparian area protection rules;
2. Impacts to any stream length in the Neuse, Tar-Pamlico and Randleman River Basins (or any other major river basins with Riparian Area Protection Rules [Buffer Rules] in effect at the time of application) requires written concurrence from DWQ in accordance with 15A NCAC 2B.0200. Activities listed as "exempt" from these rules do not need to apply for written concurrence under this Certification. New development activities located in the protected 50-foot wide riparian areas (whether jurisdictional wetlands or not) within the Neuse, Tar-Pamlico, Randleman and Catawba River Basins shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B .0200. All new development shall be located, designed, constructed, and maintained to have minimal disturbance to protect water quality to the maximum extent practicable through the use of best management practices;
3. Appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" or the "North Carolina Surface Mining Manual" whichever is more appropriate (available from the Division of Land Resources (DLR) in the DENR Regional or Central Offices) shall be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to assure compliance with the appropriate turbidity water quality standard;
4. All sediment and erosion control measures placed in wetlands or waters shall be removed and the original grade restored within two months after the Division of Land Resources has released the project;
5. If an environmental document is required, this Certification is not valid until a Finding of No Significant Impact (FONSI) or Record of Decision (ROD) is issued by the State Clearinghouse;
6. Placement of culverts and other structures in waters, streams, and wetlands must 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 including open bottom or bottomless arch culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in aggradation, degradation or significant changes in hydrology of wetlands or stream beds 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. Additionally, when roadways, causeways or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges must be provided to maintain the natural hydrology of the system as well

WQC #3366

as prevent constriction of the floodway that may result in aggradation, degradation or significant changes in hydrology of streams or wetlands;

7. Measures shall be taken to prevent live or fresh concrete from coming into contact with waters of the state until the concrete has hardened;
8. All temporary fill shall be removed to the original grade after construction is complete and the site shall be stabilized to prevent erosion;
9. Pipes shall be installed under the road or causeway in all streams to carry at least the 25 year storm event as outlined in the most recent edition of the "North Carolina Sediment and Erosion Control Planning and Design Manual" or the "North Carolina Surface Mining Manual" so as not to restrict stream flow during use of this Certification;
10. In accordance with North Carolina General Statute Section 143-215.3D(e), any request for written concurrence for a 401 Water Quality Certification must include the appropriate fee. If a project also requires a CAMA Permit, one payment to both agencies shall be submitted and will be the higher of the two fees;
11. Additional site-specific conditions may be added to projects for which written concurrence is required or requested under this Certification in order to ensure compliance with all applicable water quality and effluent standards;
12. Concurrence from DWQ that this Certification applies to an individual project shall expire three years from the date of the cover letter from DWQ or on the same day as the expiration date of these corresponding Nationwide and Regional General Permits, whichever is sooner;
13. When written concurrence is required, the applicant is required to use the most recent version of the Certification of Completion form to notify DWQ when all work included in the 401 Certification has been completed.

Non-compliance with or violation of the conditions herein set forth by a specific fill project shall result in revocation of this Certification for the project and may result in criminal and/or civil penalties.

The Director of the North Carolina Division of Water Quality may require submission of a formal application for individual certification for any project in this category of activity that requires written concurrence under this certification, if it is determined that the project is likely to have a significant adverse effect upon water quality or degrade the waters so that existing uses of the wetland, stream or downstream waters are precluded.

Public hearings may be held for specific applications or group of applications prior to a Certification decision if deemed in the public's best interest by the Director of the North Carolina Division of Water Quality.

Effective date: 18 March 2002

DIVISION OF WATER QUALITY
By

Gregory J. Thorpe, Ph.D.
Acting Director