

# STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY GOVERNOR

LYNDO TIPPETT Secretary

August 23, 2007

MEMORANDUM TO:	Mr. Richard E. Greene, Jr., PE Division Four Engineer
FROM:	Philip S. Harris, III, P.E., Unit Head E. F. Juck Natural Environment Unit Project Development and Environmental Analysis Branch
SUBJECT:	Wilson County, SR 1158 (Airport Blvd) from North of NC 42 to US 264; T.I.P. Number U-3823; Federal Aid Project STP-1158(2); State Project 8.2341801

Attached are the modifications to the U. S. Army Corps of Engineers Individual 404, the Individual 401 Water Quality Certification and the 401 Buffer Authorization for the above referenced project. All environmental permits have been received for the construction of this project.

## PSH/gyb

## Attachment

Cc:

Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Jay Bennett, P.E., Roadway Design
Dr. David Chang, P.E., Hydraulics
Mr. Randy Garris, P.E. State Contract Officer
Mr. Art McMillan, P.E., Highway Design
Mr. Greg Perfetti, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. John F. Sullivan, FHWA
Mr. Rob Hanson, P.E., PDEA Eastern Region Unit Head
Mr. Jamie Guerrero, Division Environmental Officer

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#### DEPARTMENT OF THE ARMY WILMINGTON DISTRICT, CORPS OF ENGINEERS

Washington Regulatory Field Office P.O. Box 1000 Washington, North Carolina 27889-1000

August 14, 2007

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IN REPLY REFER TO

**Regulatory Division** 

**ORM ID SAW-200020569** 

Dr. Gregory J. Thorpe, Ph. D. Environmental Manager Director Project Development and Environmental Analysis Branch North Carolina Department of Transportation 1598 Mail Service Center Raleigh, North Carolina 27699-1598

Dear Dr. Thorpe:

Please reference the Department of the Army permit issued to you on January 4, 2006, for Sections A and B of the S.R. 1158 (Airport Road) TIP U-3823, adjacent to Bloomery Swamp and two unnamed tributaries, from NC 42 to US 264A, West of Wilson, in Wilson County, North Carolina. The Corps is issuing this permit modification in response to your written request of June 14, 2007. The permit modification requests are as follows:

1. Section A, Site 1:	Clarify wording to read "temporary fill in wetlands"
2. Section A, Site 2:	<ul> <li>0.585 acres of permanent fill in wetlands</li> <li>0.032 acres of excavation in wetlands</li> <li>0.268 acres of mechanized clearing in wetlands</li> <li>0.132 acres of temporary fill in wetlands</li> <li>0.175 acres of temporary fill in surface waters (workpad)</li> </ul>

The permit is hereby modified to include the work as indicated above and shown on the enclosed plans. It is understood that all conditions of the original permit remain applicable and that the expiration date is unchanged. It is also understood that the 12-foot by 9-foot pentuple barrel culvert in Section A, Site 2, will be removed in its entirety.

Thank you for your time and cooperation. If you have any questions, please contact Mr. William Wescott of my staff, telephone (252) 975-1616, extension 31.

Sincerely, David M\_ Kele

David M. Lekson, P.W.S. Chief, Washington Regulatory Field Office

Enclosures

Copies Furnished (without enclosures):

Mr. John Hennessy Water Quality Section Division of Environmental Management North Carolina Department of Environment and Natural Resources 1650 Mail Service Center Raleigh, North Carolina 27699-1650

Mr. Travis Wilson Eastern Region Highway Project Coordinator Habitat Conservation Program 1142 I-85 Service Road Creedmoor, North Carolina 27522

Mr. Pete Benjamin U.S. Fish and Wildlife Service Fish and Wildlife Enhancement Post Office Box 33726 Raleigh, North Carolina 27636-3726

Mr. Ron Sechler National Marine Fisheries Service 101 Pivers Island Beaufort, North Carolina 28516 Mr. Chris Militscher C/O FHWA U.S. Environmental Protection Agency Raleigh Office 310 New Bern Avenue, Room 206 Raleigh, North Carolina 27601



June 26, 200

Dr. Greg Thorpe, PhD., Manager Planning and Environmental Branch North Carolina Department of Transportation 1598 Mail Service Center Raleigh, North Carolina, 27699-1598

PDEA-OFFICE OF NATURAL ENVIRONMENT

2007

DIVISION OF HIGHWAYS

Subject: Modification to the 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act and NEUSE BUFFER RULES, with ADDITIONAL CONDITIONS for Proposed widening to SR 1158 in Wilson County, Federal Aid Project No. STP-1158(2), State Project No. 8.2341801, TIP No. U-3823. DWQ Project No. 20051764 ver.2.

Dear Dr. Thorpe:

Attached hereto is a modification of Certification No. 3550 issued to The North Carolina Department of Transportation dated November 28, 2005. This modification is applicable only to the additional proposed activities in the modification request received June 15, 2007. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated November 28, 2005 still apply except where superceded by this certification.

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

Sincerely, Germosy Coleen Sullins

Director

Attachments

 cc: William Wescott, US Army Corps of Engineers, Washington Field Office Jamie Guerrero, Division 4 Environmental Officer Kathy Matthews, Environmental Protection Agency Travis Wilson, NC Wildlife Resources Commission Gary Jordan, US Fish and Wildlife Service Michael Turchy, NCDOT NEU Beth Harmon, Ecosystem Enhancement Program DWQ Raleigh Regional Office copy File Copy





#### Modification to the 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act and NEUSE BUFFER RULES, with ADDITIONAL CONDITIONS

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 and 15A NCAC 2B.0233. The project shall be constructed pursuant to the modification dated received June 14, 2007. The authorized impacts are as described below:

Site	Permanent Fill (ac)	Temporary Fill (ac)	Excavation (ac)	Mechanized Clearing (ac)	Total Wetland Impact (ac)
2	0.038	0.014	0.031	-0.031	0.052
Total	0.038	0.014	0.031	-0.031	0.052

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Total Additional Wetland Impact for Project: 0.052 acres.

#### Additional Open Water Impacts in the Neuse River Basin

Site	Permanent Fill in Open Waters	Temporary Fill in Open Waters (ac)	Total Fill in Open Waters
	(ac)		(ac)
2	0	0.109	0.109
Total	0	0.109	0.109

Total Additional Open Water Impact for Project: 0.109 acres.

#### Additional Neuse Rinarian Buffer Impacts

Site	Zone 1 Impact (sq ft)	<i>minus</i> Wetlands in Zone 1 (sq ft)	= Zone 1 Buffers (not wetlands) (sq ft)	Zone 1 Buffer Mitigation Required (using 3:1 ratio)	Zone 2 Impact (sq ft)	<i>minus</i> Wetlands in Zone 2 (sq ft)	= Zone 2 Buffers (not wetlands) (sq ft)	Zone 2 Buffer Mitigation Required (using 1.5:1 ratio)
2	664	0	664	N/A	496	0	496	0
Totals	664	0	664	0	496	0	496	0

Total Additional Buffer Impact for Project: 1,160 square feet.

The application provides adequate assurance that the discharge of fill material into the waters of the Neuse River Basin in conjunction 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 modified application dated received June 15, 2007. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated November 28, 2005 still apply except where superceded by this certification. Should your project change, you are required to 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 any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, 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, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

### **Conditions of Certification:**

1. All other conditions written into previous Water Quality Certifications for this project still apply except where superceded by this modification.

2. Placement of culverts and other structures in waters, streams, and wetlands shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. 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 is being maintained if requested in writing by DWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NC DWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.

3. If multiple pipes or barrels are required, they should be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation and/or sills where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.

4. Riprap should not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.

5. For any streams being impacted due to site dewatering activities, the site shall be graded to its preconstruction contours and revegetated with appropriate native species.

6. The post-construction removal of any temporary bridge structures must return the project site to its preconstruction contours and elevations. The impacted areas shall be revegetated with appropriate native species.

7. Strict adherence to the most recent version of NCDOT's Best Management Practices For Bridge Demolition and Removal approved by the US Army Corps of Engineers is a condition of the 401 Water Quality Certification.

8. Bridge deck drains should not discharge directly into the stream. Stormwater should be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of *Stormwater Best Management Practices*.





9. All channel relocations will be constructed in a dry work area and stabilized before stream flows are diverted. Channel relocations 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. 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 the relocated channel to the maximum extent practical. A transitional phase incorporating coir fiber and seedling establishment is allowable. Also, riprap may be allowed if it is necessary to maintain the physical integrity of the stream, but the applicant must provide written justification and any calculations used to determine the extent of riprap coverage requested.

10. All stormwater runoff shall be directed as sheetflow through stream buffers at nonerosive velocities, unless otherwise approved by this certification.

11. 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 DOT 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.

12. 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.

13. If concrete is used during construction, a dry work area should be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete should not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.

14. 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.

15. The dimension, pattern and profile of the stream above and below the crossing should not be modified. Disturbed floodplains and streams should be restored to natural geomorphic conditions.

16. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.

17. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream.

18. 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.

19. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.

20. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.





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21. The permittee 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 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.

22. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification.

23. 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.

24. 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.

25. Upon completion of the project, the NCDOT Division Engineer shall complete and return the "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed.

26. Native riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.

27. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities.

28. 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. The 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. The 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. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with 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.

29. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored upon completion of the project.





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 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit.

If this Certification is unacceptable to you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 26th day of June 2007

DIVISION OF WATER QUALITY

Coleen Sullins Director

WQC No. 3550

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# **Certification of Completion**

DWQ Project No.:		County:		-
Applicant:			 	-
Project Name:			 	<b>.</b> .
Date of Issuance of Wetl	and Permit:		 	

### Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification and Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Oversight/Express Permitting 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 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:

# If this project was designed by a Certified Professional

I, \_\_\_\_\_\_, as a duly registered Professional \_\_\_\_\_\_ (i.e., Engineer, Landscape Architect, Surveyor, etc.) 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	











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	Site			λ	ТҮРЕ	A	ALLOWABLE	щ	2	MITIGABLE	Щ	REPLAC	REPLACEMENT
<u>.</u>	No.	Station (From/To)	Structure Size/ Type	ROAD F CROSSING	PARALLEL IMPACT	ZONE 1 (SF)	ZONE 2 (SF)	TOTAL (SF)	ZONE1 (SF)	ZONE 2 (SF)	TOTAL (SF)	ZONE1 (SF)	ZONE2 (SF)
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	4	126+79 -L-	18" RCP	×		4968	3261	8229					
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N.C. DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS WILSON COUNTY	S YII	Z											
U-3823 SR 1158 (AIRPORT BLVD.) FROM EAST OF NC 42 TO EAST OF US 264-A	RO ST												
DATE: APRIL 2007 SHEFT 7 OF 8													

WETLAND PERMIT IMPACT SUMMARY           VETLAND IMPACTS         VETLAND IMPACTS	Permanent     Temp.     Excavation     Mechanized     Temp.     Hand       Structure     Fill In     Fill In     in     Clearing     Permane       Size / Type     Wetlands     Wetlands     Wetlands     Netlands     Netlands     SW	2 @ 60" RCP 0.022 0.027 0.010 0.016 (ac) (ac) (ac) (tt) (tt) つの28 (ac) (ac) (bc) (bc) (bc) (bc) (bc) (bc) (bc) (b	PRESTRESSED CORED SLAB 0.A 1. 205: 0.647 0.422 0.422 0.422	140.0	9-L- 18" RCP 0.010 7	0.569     0.169     0.042     0.285     0.029     0.175     89	SITE 2 CONTAINS 0.262 ACRE OF PERMANENT WETLAND IMPACT FOR UTILITY RELOCATION SITE 2 CONTAINS 0.06 ACRES OF SHADING SITE 2 CONTAINS 0.06 ACRES OF SHADING U-3823 SR 1158 (AIRPORT BLVD.) FROM BADDITIONAL 0.001 ACRE OF PERMANENT FILL WILL OCCUR AT SITE 2 AS A RESULT OF BRIDGE BENT
	Site Station No. (From/To)	1 44+95-45+55 -L- 26	2 77+25-91+55 -L-		4 126+79-L-	TOTALS:	SITE 2 CONTAINS 0.262 ACRE OF PERMANE SITE 2 CONTAINS 0.06 ACRES OF SHADING AN ADDITIONAL 0.001 ACRE OF PERMANEN



