



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

August 10, 2005

MEMORANDUM TO: Mr. Timothy Johnson, P.E.  
Division 8 Engineer

FROM: Philip S. Harris, III, P.E. *PSH*  
Natural Environment Unit Head  
Project Development and  
Environmental Analysis Branch

SUBJECT: Lee County, US 421-NC 87 Sanford Bypass from east of SR  
1521 to east of NC 42; TIP Number R-2417 BB; Federal Aid  
Project Number STPNHF-421(2); State Work Order Number  
8.T540402

Attached is a modification to the U.S. Army Corps of Engineers Individual permit for the above referenced project. 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. Art King, Division 8 Environmental Officer

## **PROJECT COMMITMENTS**

US 421-NC 87 Sanford Bypass from east of SR 1521 to east of NC 42

Lee County

State Project No.: 8.T540402

Federal Aid Project No.: STPNHF-421(2)

TIP No.: R-2417BB

In addition to the standard Individual Section 404 and 401 Permit Conditions, State Consistency Conditions, NCDOT's Guidelines for Best Management Practices for Protection of Surface Waters, and the project commitments agreed to by the NCDOT for the original Section 404 and 401 permits and subsequent modifications, the following special commitments have been agreed to by NCDOT:

### **COMMITMENTS DEVELOPED THROUGH PERMITTING MODIFICATION**

The revised natural channel design will result in a loss of 190 linear feet of on-site stream mitigation credit. The remaining mitigation balance for the 190 linear feet of impacts to streams will be satisfied through an in-lieu payment to the North Carolina Ecosystem Enhancement Program (NCEEP). NCEEP has indicated in a letter dated June 23, 2005 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project. The impacts at Site 6 occurred within the Southern Piedmont Eco-Region. This compensatory mitigation shall be performed within the same eco-region as where the impacts occurred.

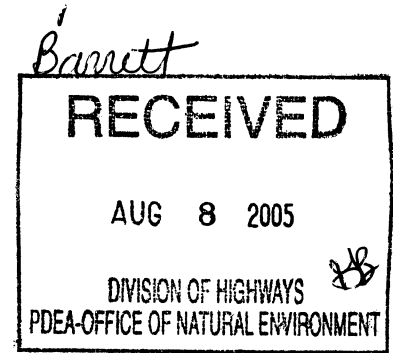
All the authorized activities and conditions of the certification associated with the original Water Quality Certification dated April 10, 2002 and all other corresponding modifications still apply except where superseded by this certification.



REPLY TO  
ATTENTION OF:

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

August 3, 2005



Regulatory Division

Subject: Action ID No. 200201326, TIP No. R-2417BB, US 421/NC 87 Bypass from East of SR 1521 to East of NC 42, Lee County, North Carolina.

Gregory J. Thorpe, Ph.D.  
Environmental Management Director  
Project Development & Environmental Analysis  
1548 Mail Service Center  
Raleigh, N.C. 27699-1548

Dear Dr. Thorpe:

I am responding to a request by Mr. Philip S. Harris, III dated July 5, 2005, for a modification to the existing Department of the Army (DA) permit issued for the above referenced project. The proposed project modifications are as follows:

**REDESIGNED STREAM RELOCATION**

**R-2417BB, permit drawing sheet 18 and 19 of 38, Station L 546+50-562+00, Site 6**

The referenced Section 404 permits authorized 1,924 ft of natural stream design at this site. Due to the slope of the channel through the drained pond, a portion of the channel was changed from a type C channel to a type B channel. This change resulted in the utilization of more control structures and less sinuosity of the channel. The length of stream channel mitigation has been modified to reflect the change in stream design. The revised natural stream design is 1,734 ft. This resulted in a decrease of natural stream design of 190 ft.

I have determined that the proposed project modifications described above are not contrary to the public interest and therefore, the DA permit is hereby modified to reflect the modified project as described in the information above and the drawings provided with the modification requests and Special Condition b of the DA permit is modified as follows:

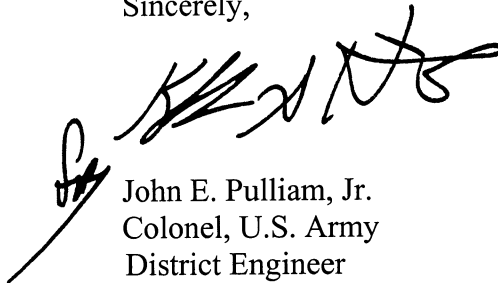
*“The permittee shall mitigate for 11.03 acres of unavoidable impacts to wetlands, and for 19,205 linear feet of impact to important streams, for the project, as described below (2.21 acres of wetland restoration at the Sandy Creek mitigation site, 11.05 acres of wetlands preservation, along with upland buffer and stream preservation, at the Blue Tract mitigation site, 1,888 linear feet of onsite stream relocation, 4,545 linear feet of stream restoration/enhancement at the Deaton mitigation site, and 25,354 linear feet of stream mitigation and 17.1 acres of wetland*

*mitigation through the North Carolina Wetlands Restoration Program (NCWRP), in the Middle Cape Fear basin (Cataloging Unit 030300004)."*

Please note that a modified Water Quality Certification shall be obtained from NCDENR-DWQ. Furthermore, all unmodified terms and conditions of your original Department of the Army permit shall remain in effect and the original permit expiration date shall remain the same.

Should you have any questions, please contact Mr. Richard Spencer, Wilmington Field Office, Regulatory Division, at telephone (910) 251-4172.

Sincerely,



John E. Pulliam, Jr.  
Colonel, U.S. Army  
District Engineer

Enclosures

Copies Furnished (with enclosures):

Mr. David Cox  
North Carolina Wildlife Resources Commission  
512 N. Salisbury Street  
Raleigh, North Carolina 27604-1188

Mr. John Hennessy  
NCDENR-DWQ  
Wetlands Section  
1621 Mail Service Center  
Raleigh, NC 27699-1621

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

Mr. Chris Militcher  
United States Environmental Protection Agency  
Raleigh Office  
Office of Environmental Assessment  
310 New Bern Avenue, Room 206  
Raleigh, NC 27601

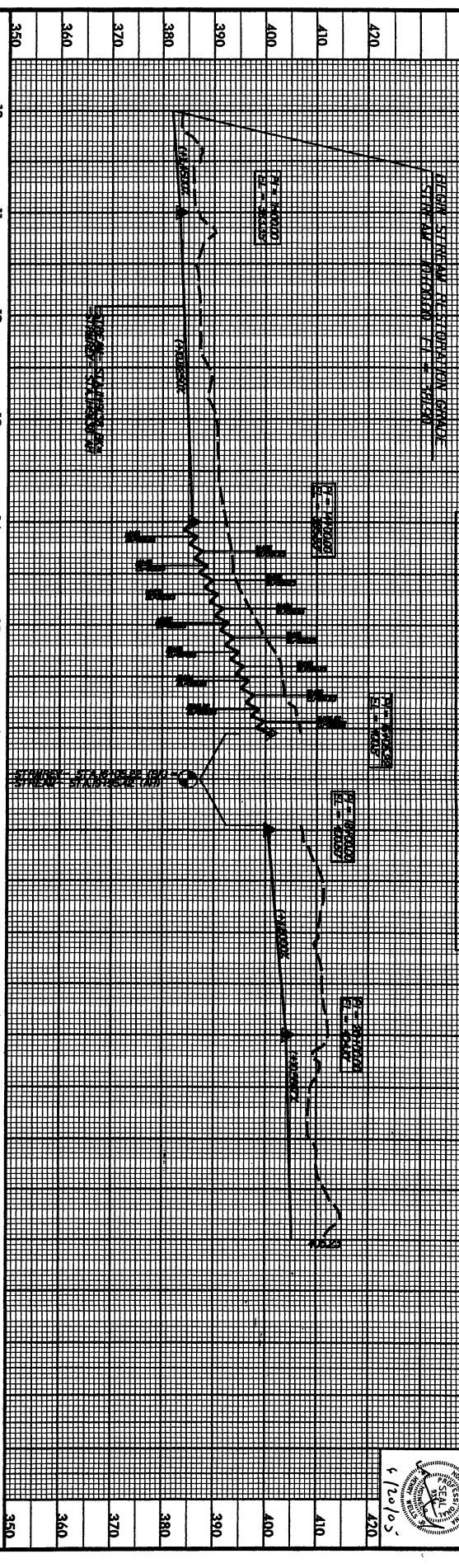
Mr. Art King  
Division Environmental Officer, Division 8  
North Carolina Department of Transportation  
P.O. Box 1067  
Aberdeen, North Carolina 28315

Mr. James J. Rerko, PWS  
Division Environmental Officer, Division 6  
North Carolina Department of Transportation  
P.O. Box 1150  
Fayetteville, North Carolina 28302-1150

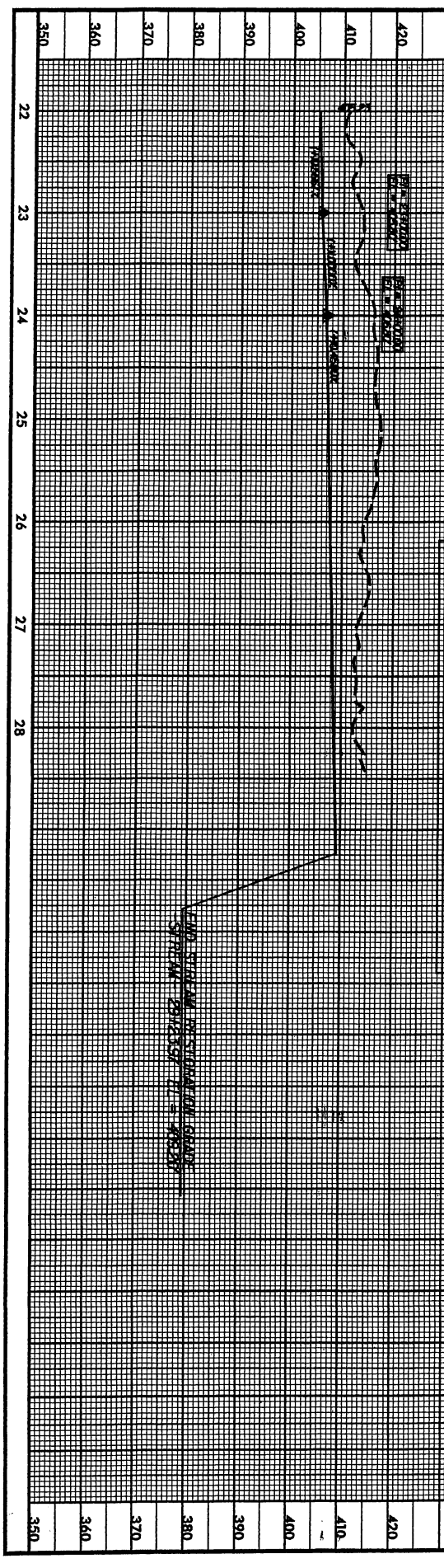
Ms. Beth Harmon  
North Carolina Ecosystem Enhancement Program  
1652 Mail Service Center  
Raleigh, NC 27699-1652



**STREAM RESTORATION**

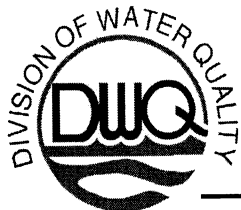


**STREAM RESTORATION**







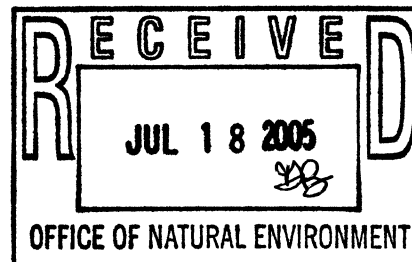


Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
North Carolina Department of Environment and Natural Resources

Alan W. Klimek, P.E. Director  
Division of Water Quality

*Barnett*

July 14, 2005



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

Re: Certification Pursuant to Section 401 of the Federal Clean Water Act,  
Modification to the Construction of US 421/NC 87 Bypass from SR 1521 to east of NC 42 in Lee  
County, Federal Aid No. STP-NHF-421(2), State Project No. 8.T540402, TIP No. R-2417BB, WQC  
Project No. 001432, WBS Element 34431.1.1  
WQC No. 3378

Dear Dr. Thorpe:

Attached hereto is a modification to Certification No. 3378 issued to the North Carolina Department of Transportation on July 14, 2005. The attached modification authorizes NCDOT to construct the natural channel design for the stream relocation at Site 6 as proposed in your application dated June 27, 2005. This modification is applicable only to the additional proposed activities. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated April 10, 2002 and all other corresponding modifications still apply except where superceded by this certification.

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

Sincerely,

Alan W. Klimek, P.E.  
Director

Attachments  
Modifications to WQC No. 3378

cc: Richard Spencer, US Army Corps of Engineers Wilmington Field Office  
Christopher Militscher, US Environmental Protection Agency – Region IV  
Polly Lespinasse, NC DWQ Mooresville Regional Office  
Central Files  
File Copy

## APPROVAL OF 401 Water Quality Certification and 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, Section .0500, and 15 NCAC 2B .0233. This certification authorizes the NCDOT to construct the revised natural channel design at Site 6. The project shall be constructed pursuant to the application submitted on June 27, 2005. The application provides adequate assurance that the discharge of fill material into the waters of the Cape Fear River Basins 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 application dated June 27, 2005. 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 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 three years from the date of the cover letter from DWQ or on the same day as the expiration date of the corresponding Corps of Engineers Permit, whichever is sooner.

### Condition(s) of Certification:

1. The revised natural channel design will result in a loss of 190 linear feet of stream mitigation credit. We understand that you have chosen to satisfy the remaining mitigation balance for the 190 linear feet of impacts to streams through an in-lieu payment to the North Carolina Ecosystem Enhancement Program (NCEEP). NCEEP has indicated in a letter dated June 23, 2005 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project. This project is listed in Exhibit 2 of the Memorandum of Agreement among the NC DENR, NCDOT, and US Army Corps of Engineers. The impacts at Site 6 occurred within the Southern Piedmont Eco-Region. This compensatory mitigation shall be performed within the same eco-region as where the impacts occurred.
2. All the authorized activities and conditions of the certification associated with the original Water Quality Certification dated April 10, 2002 and all other corresponding modifications still apply except where superceded by this certification.

### Conditions from WQC No. 3378 issued April 10, 2002:

1. 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 (50 NTUs in all fresh water streams and rivers not designated as trout waters; 25 NTUs in all lakes and reservoirs, and all saltwater classes; and 10 NTUs in trout waters);

2. 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 after the Division of Land Resources has released the project;
3. If an environmental document is required, this Certification is not valid until a FONSI or ROD is issued by the State Clearinghouse. All water quality-related conditions of the FONSI or ROD shall become conditions of this Certification;
4. Measures shall be taken to prevent live or fresh concrete from coming into contact with waters of the state until the concrete has hardened;
5. 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.
6. 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 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, 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 any calculations used to determine the extent of rip-rap coverage requested.
7. Compensatory mitigation for impacts to streams shall be done for 17,138 linear feet of stream impact (4545 linear feet in Hydrologic Unit 03030003 and 12,593 linear feet in Hydrologic Unit 03030004) at a replacement ratio of 1:1. Compensatory mitigation for impacts to jurisdictional streams shall be provided by onsite stream relocations of 144 linear feet of streams on site (in Hydrologic Unit 03030004) as described in the June 11, 2001 application for Sites 14 and 22 in segment BA. In addition, compensatory mitigation for impacts to jurisdictional streams shall be provided by onsite stream relocations of 1930 linear feet of streams on site (in Hydrologic Unit 03030004) as described in the September 28, 2001 addendum for Site 6 in segment BB. All stream relocations shall have 50-foot wooded buffers planted on both sides of the stream. As-Builts for the completed streams shall be submitted to the North Carolina Division of Water Quality 401 Wetlands Unit within 30 days of the completion of the construction of the relocations. If the parameters of this condition are not met, then the NCDOT shall supply additional stream mitigation for the 2074 linear feet of impacts. In addition to the 2,074 linear feet of on-site mitigation, compensatory mitigation for an additional 15,064 linear feet of streams is required as described below:

Mitigation Site	Linear Feet Debited from Site	Type of Mitigation	Replacement Ratio	Linear Feet of Mitigation Credited
<b>Hydrologic Unit 03030003</b>				
Deaton Mitigation Site	4,545	Restoration	1:1	4,545
<b>Hydrologic Unit 03030004</b>				
On-site	2,074	Restoration	1:1	2,074
WRP	10,519		1:1	10,519
<b>Total</b>				<b>17,138</b>

We understand that you have chosen to perform compensatory mitigation for some of your impacts to streams through an in lieu payment to the North Carolina Wetland Restoration Program (NCWRP), and that the WRP has agreed to implement the mitigation for the project. Mitigation for unavoidable impacts to 10,519 linear feet of streams shall be provided through an in-lieu payment to the North Carolina Wetland Restoration Program (NC WRP) at a rate of \$125 per linear foot. Therefore, a total payment of \$1,314,875 shall be submitted to the NCWRP to offset the impacts. No construction activities in jurisdictional streams shall begin until payment for stream mitigation is made and the Wetland Restoration Program receives and clears your check (made payable to DENR – Wetland Restoration Program). The payment to NCWRP shall be sent within two months of issuance of the 404 permit. If you have any questions concerning the Wetland Restoration Program please contact them at 919-733-5208.

8. Compensatory mitigation for impacts to wetlands shall be done for 11.06 acres of impacts (2.21 in Hydrologic Unit 03030003 and 8.85 in Hydrologic Unit 03030004). Applying a replacement ration of 2:1 total mitigation for 22.12 acres of riparian wetlands (4.42 in Hydrologic Unit 03030003 and 17.70 acres in Hydrologic Unit 03030004) shall be provided as described below.

Mitigation Site	Acres of WL Debited from Site	Type of Mitigation	Replacement Ratio	Acres of Mitigation Credited
<b>Hydrologic Unit 03030003</b>				
Sandy Creek Mitigation Site	2.21	Restoration	1:1	2.21
Blue Mitigation Site	11.04	Preservation	5:1	2.21
<b>Hydrologic Unit 03030004</b>				
WRP	17.70	Restoration	1:1	17.70
<b>Total</b>				<b>22.12</b>

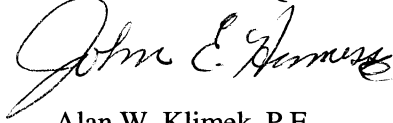
9. Upon completion of the project, the NCDOT shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed. The responsible party shall complete the attached form and return it to the 401/Wetlands Unit of the Division of Water Quality upon completion of the project.
10. 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 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.
11. When final design plans are completed for Sections R-2417 AA and R-2417 C, a modification to the 401 Water Quality Certification shall be submitted with seven copies and fees to the NC Division on Water Quality. Final designs shall reflect all appropriate avoidance, minimization, and mitigation for impacts to wetlands, streams, and other surface waters. Construction activities that impact any wetlands, streams, and other surface waters located in Sections R-2417 AA or Sections R-2417 C shall begin only after NCDOT applies for and receives a modified 401 Water Quality Certification from the NC Division of Water Quality.
12. No construction activities are authorized in Section R-2417 AA or Section R-2417 AB until a final design is approved in writing by the NC Division of Water Quality 401 Wetlands Unit for the Deaton Mitigation Site.
13. Given the multiple set of addendums to the original application, NCDOT shall provide to the NCDWQ a final of site drawings within 2 months of the date of issuance of the 401 Water Quality Certification that reflects the authorized impacts in 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 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, P.O. Box 27447, Raleigh, N.C. 27611-7447. 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 14<sup>th</sup> day of July 2005

DIVISION OF WATER QUALITY

A handwritten signature in black ink, appearing to read "Alan W. Klimek". The signature is written in a cursive style with a large initial 'A'.

Alan W. Klimek, P.E.  
Director

WQC No. 3378

# Certificate of Completion

DWQ Project No.: \_\_\_\_\_

County: \_\_\_\_\_

Applicant: \_\_\_\_\_

Project Name: \_\_\_\_\_

Date of Issuance of 401 Water Quality Certification: \_\_\_\_\_

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/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 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: \_\_\_\_\_