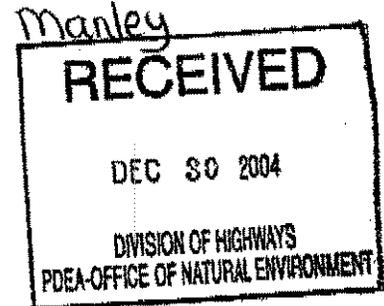


**Attachment 5 - State of North Carolina 401 Water Quality Certification,
December 21, 2004**



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

December 21, 2004



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

Dear Dr. Thorpe:

Re: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act for the
Proposed Relocation of US 64, TIP No. R-0977A
Individual WQC No. 3487
Cherokee County

Attached hereto is a copy of Certification No. 3487 issued to The North Carolina Department of
Transportation dated December 21, 2004.

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

Sincerely,

for Alan W. Klimek, P.E.
Director

Attachments

cc: Steve Lund, Army Corps of Engineers Asheville Regulatory Field Office
Mike Parker, DWQ Mooresville Regional Office
Marla Chambers, NC Wildlife Resources Commission
Marella Buncick, US Fish and Wildlife Services
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 .0259. This certification authorizes the NCDOT to place permanent fill material in, drain, excavate, and mechanically clear 0.85 acres of jurisdictional wetlands; to place permanent fill material, culverts, and piping in 6,812 linear feet of streams; and to place temporary fill in 0.02 acres of surface waters in Cherokee County. The project shall be constructed pursuant to the application dated September 29, 2004, to relocate the section of US 64 that extends from US 19/74/129 in Murphy to NC 141 in Peachtree. The approved design is that submitted in your application dated September 29, 2004. The authorized impacts are as described below:

Table 1. Wetland Impacts in the Hiwassee River Basin

Section	Riverine (acres)	Total (acres)
Site 1 - Station No. 10+80-LC1B- Rt	0.13*	0.13
Site 3 - Station No. 14+60 - LC1B	0.17	0.17
Site 3A - Station No. 15+60 - LC1B	0.22	0.22
Site 4 - Station No. 14+80 - LC1B	0.02	0.02
Site 11 - Station No. 10+20 to 15+50 -Y3- Rt.	0.1	0.1
Site 17 - Station No. 76+40 to 76+80 Rt. -LREV-	0.12	0.12
Site 18 - Station No. 82+00 - LREV-	0.07	0.07
Site 21 - Station No. 12+75 - Y6-	<0.02*	<0.02
Total	0.85	0.85

*Impacts <0.01 ac. are calculated as 0.01 ac.

Table 2. Surface Water Impacts for the Hiwassee River Basin

Section	Stream	Stream Impacts (linear feet)	Stream Type	Mitigation Required (linear feet)
Site 1 - Station No. 10+80 -LC1B- Rt -	UT to Hiwassee River	66	Perennial	0
Site 4 - Station No. 14+80-LC1B-	UT to Hiwassee River	354	Perennial	354
Site 5 - Station No. 12+64 -Y1REV-	UT to Hiwassee River	113	Perennial	0
Site 5A - Station No. 18+30 -LC1B-	UT to Hiwassee River	518	Perennial	518

Site 7 - Station No. 28+90 -LREV- Rt	UT to Martin Creek	22	Perennial	0
Site 8 - Station No. 34+80 -LREV- Rt	UT to Hampton Creek	89	Perennial	0
Site 9 - Station No. 35+50 -LREV-	Hampton Creek	971	Perennial	971
Site 10 - Station No. 36+50 -LREV-	UT to Hampton Creek	725	Perennial	725
Site 11 - 10+20 to 15+50 -Y3- Rt	UT to Hiwassee River	1,598	Perennial	1,598
Site 12 - Station No. 54+20 -LREV- Lt	UT to Hiwassee River	220	Perennial	220
Site 14 - Station No. 58+00 -LREV-	UT to Hiwassee River	358	Perennial	358
Site 15 - Station No. 61+40 - LREV-	UT to Hiwassee River	125	Perennial	0
Site 16 - Station No. 64+40 -LREV-	UT to Hiwassee River	453	Perennial	453
Site 18 - Station No. 82+00 -LREV-	UT to McComb Branch	381	Perennial	381
Site 19 - Station No. 10+60 -Y9REV-	UT to McComb Branch	151	Perennial	151
Site 20 - Station No. 85+00 -LREV-	UT to McComb Branch	504	Perennial	504
Site 21 - Station No. 12+75 -Y6-	UT to McComb Branch	105	Perennial	0
Site 22 - Station No. 10+00 -Y10-	UT to McComb Branch	59	Perennial	0
Total		6,812		6,233

The application provides adequate assurance that the discharge of fill material into the waters of the Hiwassee 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 application, as described in the Public Notice. 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 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:

Project Specific Conditions of Certification:

1. Prior to stream relocation activities, the final Natural Channel Design plan for the stream relocation of a tributary to Hiwassee River at Site 11 must be approved by the NC Division of Water Quality.
2. Prior to commencing ground disturbing activities, an acceptable monitoring and mitigation plan for the presence of sulfidic rock must be approved by the NC Division of Water Quality.
3. Low flow sills and a trout flow channel shall be installed in the double barrel box culvert at Site 9 in accordance with NC Wildlife Resources Commission recommendations.
4. The bridges across the Hiwassee River at Sites 4A and 16A shall fully span the river with no bridge bents in the channel.
5. Hazardous material spill basins shall be installed at Sites 4A and 16A along the Hiwassee River.
6. Compensatory mitigation for impacts to streams shall be done for 6,233 linear feet of stream impact as shown above in Table 2 at a replacement ratio of 1:1. Compensatory mitigation for impacts to jurisdictional streams shall be provided by onsite stream relocations of 801 linear feet of a tributary to Hiwassee River. The onsite stream relocation shall be constructed in accordance with a final design to be submitted to the Division of Water Quality in accordance with Project Specific Condition 1. To earn mitigation credit, the stream relocation shall have a 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 801 linear feet of impacts. In addition to the 801 linear feet of on-site mitigation, compensatory mitigation for an additional 5,432 linear feet of streams is required. We understand that you have chosen to perform compensatory mitigation for the remainder of impacts to streams through an in-lieu payment to the North Carolina Ecosystem Enhancement Program (NCEEP). NCEEP has indicated in a letter dated August 5, 2004 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project as detailed in the table below.

Type of Impact	Amount of Impact
Streams	6,011 lf
Wetlands	0.82 ac.

General Conditions of Certification:

7. 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. All stream relocation and restoration activities shall comply with the final natural channel design plans approved by the NC Division of Water Quality.
8. Construction will be conducted in such a manner as to prevent a significant increase in turbidity outside the area of construction or construction-related discharge. 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 assure compliance with the appropriate turbidity water quality standard.
 - a. The erosion and sediment control measures for the project 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 project.
 - b. 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. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
9. All 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.
10. 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.
11. No live or fresh concrete shall come into contact with waters of the state until the concrete has hardened.
12. 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.
13. Excavation of the stream crossings should be conducted in the dry. Sandbags, cofferdams, flexible pipe, or other diversion structures should be used to minimize excavation in flowing water.

14. 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.
15. 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.
16. 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.
17. 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.
18. All temporary fills in wetlands and surface waters shall be removed upon completion of the project. In addition, the post-construction removal of any temporary bridge structures or fill will need to return the project site to its preconstruction contours and elevations. The revegetation of the impacted areas with appropriate native species will be required.
19. Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
20. Any riprap used must not interfere with thalweg performance and aquatic life passage during low flow conditions.
21. Heavy equipment should be operated from the bank rather than in the stream channel whenever possible in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into the stream. 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.
22. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.

23. 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 May 11, 2004.
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. 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 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.
26. 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.
27. Culverts that are less than 48-inch in diameter should be buried to a depth equal to or greater than 20% of their size to allow for aquatic life passage. Culverts that are 48-inch in diameter or larger should be buried at least 12 inches below the stream bottom to allow natural stream bottom material to become established in the culvert following installation and to provide aquatic life passage during periods of low flow. These measurements must be based on natural thalweg depths.

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 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 21st day of December 2004

DIVISION OF WATER QUALITY


for Alan W. Klimek, P.E.
Director

WQC No. 3487

DWQ Project No.: 3487

County: Cherokee

Applicant: NC Department of Transportation

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 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 _____