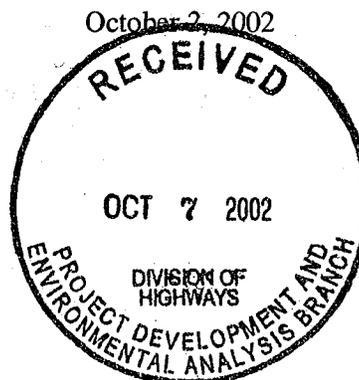


Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
North Carolina Department of Environment and Natural Resources

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



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

Dear Dr. Thorpe:

Re: Water Quality Certification Pursuant to §401 of the Federal Clean Water Act, Monroe Bypass  
from US 601 to existing US 74; Union County.  
TIP Project Nos. R-2559B and R-2559C  
DWQ Project No. 020692

Attached hereto is a copy of Certification No. 3395 issued to The North Carolina Department of  
Transportation dated October 2, 2002.

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

Sincerely,

Alan W. Klimek, P.E.

**Attachments**

cc: Steve Lund, USACE Asheville Field Office  
Samar Bou-Ghazale, NCDWQ Mooresville Regional Office  
Christy Putnam, Union County Stormwater  
Jim Loyd, City of Monroe  
Brian Matthews, Town of Stallings  
Shannon Deaton, NC Wildlife Resources Commission  
Robert Deaton, NCDOT Project Development & Environmental Analysis  
Scott Anderson  
Central Files  
File Copy



## NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

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

- 4.26 acres of jurisdictional riverine wetlands;
  - 6,771 linear feet of jurisdictional stream channels
- in Union County, as described in the Application dated 19 April 2002.

The project shall be constructed pursuant to the application dated April 19, 2002 filed to construct Monroe Bypass from US 601 to existing US 74 (TIP Project Nos. R-2559B and R-2559C).

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

This approval is only valid for the purpose and design that you submitted in your application. Should your project change, you are required to notify the DWQ *in writing*, and you may be required to 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 this project incurs additional wetland or stream impacts, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion Control, Non-discharge and Water Supply watershed regulations. This Certification shall expire three (3) years from the date of the cover letter from DWQ or on the same day as the expiration date of the corresponding Corps of Engineers Permit, whichever is sooner.

### Condition(s) of Certification:

1. The applicant must follow the 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) and 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 and 25 NTUs in all lakes and reservoirs);
2. NCDOT shall use *Best Management Practices for the Protection of Surface Waters* (NCDOT March 1997), specifically using all applicable preventive and control measures during the design, construction and maintenance of this project. These measures shall be implemented prior to any ground-disturbing activities to minimize impacts to downstream aquatic resources.
3. During the construction of the project, the applicant shall strictly adhere to North Carolina regulations entitled, *Design Standards in Sensitive Watersheds* [15A NCAC 4B .0124], within the entire project corridor.

4. NCDOT shall adhere to the requirements for WS-III Waters [15A NCAC 2B .0215(3)(b)] and WS-IV Waters [15A NCAC 2B .0216(3)(b)].
5. Storm water shall be directed to flow as diffuse flow at non-erosive velocities across the stream buffers or to retention basins or pre-formed scour holes and shall not be routed directly into streams. Existing stream buffers shall not be mowed in order to allow them to be used for storm water diffuse flow.
6. *Stream and Wetland Impact Sites*
  - Site 1 (plan sheet 6 of 25)

The plans for Site 1 shall be revised to include the removal of the ditch from the flood plain and the addition of a pre-formed scour hole at the termination of the ditch. The ditch and scour hole shall be constructed according to the revised plans.
  - Site 2 (Wetland Impact)

NCDOT shall install a type "A" basin with a riser above the wetlands to ensure better sedimentation and erosion control.
  - Sites 3, 10, and 15+15A (plan sheets 8, 17, and 22 of 25)

Step pools and vegetated side slopes or similar stream design techniques must be provided for the relocated stream channels shown on these site plans. The plans shall include typical cross sections and plan views that indicate the appropriate pool-to-pool spacing. The plans must be approved in writing by the NC Division of Water Quality, 401 Wetlands Unit *before* the stream and wetland impacts approved by this Certification occur. The channels must be constructed, planted and maintained in accordance with the approved plans before the Monroe Bypass is opened to traffic.
  - Site 4 (plan sheets 9 and 10 of 25)

Before any of the impacts approved by this Certification occur, an intensive, on-site evaluation must be conducted by NCDOT and NCDWQ to review the efficacy of using natural channel design techniques. Additionally, plans shall be developed based on this evaluation and must be approved in writing by the NC Division of Water Quality, 401 Wetlands Unit before the stream and wetland impacts approved by this Certification occur. The channels must be constructed, planted and maintained in accordance with the approved plans before the Monroe Bypass is opened to traffic.
7. The Meadow Branch Bridge shall be designed according to *Best Management Practices for the Protection of Surface Waters* (NCDOT March 1997). Specifically, the bridge decking shall not discharge storm water directly into the receiving water.
8. Prior to any construction activities, the NCDOT shall submit a maintenance plan for all storm water management facilities and hazardous spill catch basins associated with the project. The NCDOT shall be required to implement the maintenance plan for the life of this road. Sediment and erosion control devices 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.
9. Live or fresh concrete shall not come into contact with waters of the state until the concrete has hardened.

10. There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this permit without appropriate modification of this Certification. If this occurs, compensatory mitigation will be required since it is a direct impact from road construction activities.
11. Placement of culverts and other structures in waters, streams, and wetlands shall be placed below the elevation of the streambed to allow low flow passage of water and aquatic life unless it can be shown to DWQ that providing passage would be impractical. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or 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.
12. *Mitigation:* Compensatory mitigation shall be the same as that approved by the US Army Corps of Engineers as long as the mitigation required equals a ratio of 1:1 restoration or creation of lost wetland acres as described in 15A NCAC 2H.0506 (h)(6). A report must be submitted to the NC Division of Water Quality that describes the final approved stream and buffer mitigation for this project within two (2) months of the issuance of the 404 permit issued by the Army Corps of Engineers.
  - a. Wetland impacts of 4.26 acres of riverine wetlands in the Yadkin-Pee Dee River Basin (Hydrologic Unit 03040105). Compensatory mitigation will be provided at a ratio of 2:1 via in-lieu payments to WRP.
  - b. Stream impacts total 6,771 linear feet in the Yadkin-Pee Dee River Basin (Hydrologic Unit 03040105).

Compensatory mitigation consists of the following:

    - 279 linear feet of on-site mitigation (using a 1:1 ratio).
    - 13, 712 linear feet of off-site mitigation (using a 2:1 ratio) via in-lieu payments to WRP.

The stream restoration shall be performed and maintained according to approved plans before any mitigation credit is given. If this Office determines that the stream restoration or associated riparian area has become unstable, the stream shall be repaired or stabilized using only natural channel design techniques if possible. Additionally, the vegetation in the riparian shall be maintained and/or replaced according to the approved plans. Rip-rap and other hard structures may *only* be used if required by the Division of Land Resources or a Delegated Local Program. Additionally, all repair designs must be submitted to and receive written approval from this Office before the repair work is performed.

Since the restored stream is proposed as compensatory mitigation for stream impacts, the restored portion and associated riparian buffer area shall be preserved in perpetuity through a preservation easement or some other legally binding mechanism or agreement. The above easement or other legally binding mechanism or agreement must be in place before any mitigation credit shall be given. Additionally, the stream physical and biological monitoring plan shall be followed and reports shall be submitted to this Office after the first year and every other year afterwards for a total of five (5) years.

In accordance with 15A NCAC 2R.0500, this contribution will satisfy our compensatory mitigation requirements under 15A NCAC 2H.0506(h). Until plans are received and approved for the stream relocation using natural channel design, wetland or stream fill shall not occur.

13. In accordance with the findings of *Indirect and Cumulative Analysis Nutrient Study* for Monroe Bypass (September 2002) prepared by EcoScience Corporation and *Indirect and Cumulative Analysis Land Use Analysis* (September 2002) prepared by HNTB, the anticipated cumulative impacts from the Monroe Bypass shall be addressed via written agreements between NC Division of Water Quality and relevant Union County local governments concerning local land use. These agreements shall address the implementation of:

- a. Riparian buffers;
- b. On-site storm water control measures for new development; and
- c. Enhanced sediment and erosion control best management practices (BMPs).

NCDOT shall assist in the development and implementation of these measures as appropriate.

14. 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.

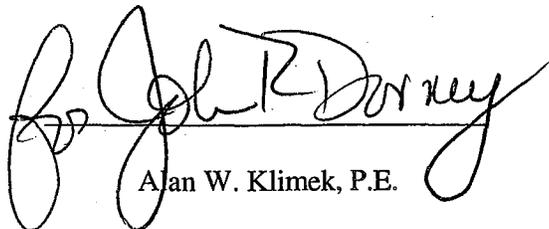
15. The Applicant shall require its contractors (and/or agents) to comply with all of the terms of this Certification, and shall provide each of its contractors (and/or agents) a copy of this Certification.

Violations of any condition herein set forth shall result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal Permit.

If you do not accept any of the conditions of this certification, you may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. To ask for a hearing, send a written petition that conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. This certification and its conditions are final and binding unless you ask for a hearing.

This the 2<sup>nd</sup> day of October 2002

DIVISION OF WATER QUALITY



Alan W. Klimek, P.E.

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

***Applicant's Certification***

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

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

***Agent's Certification***

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

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

***Engineer's Certification***

\_\_\_\_\_ Partial      \_\_\_\_\_ Final

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

Signature \_\_\_\_\_

Registration No. \_\_\_\_\_

Date \_\_\_\_\_