



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

June 4, 2007

MEMORANDUM TO: Mr. Michael A. Pettyjohn, PE
Division 11 Engineer

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

SUBJECT: Caldwell County, Bridge No. 90 on SR 1718 over
Gunpowder Creek; T.I.P. Number B-3126; Federal Aid
Project BRZ-1718(3); State Project 8.2732701

Attached is the U. S. Army Corps of Engineers Regional General Permit No. 31 and the 401 Water Quality Certification 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
Ms. Teresa Hart, P.E., PDEA Western Region Unit Head
Mr. Larry Thompson , RS, PWS, Division Environmental Officer

ENVIRONMENTAL COMMITMENTS

**Caldwell County
Bridge No. 90 on SR 1718
Over Gunpowder Creek
Federal Aid Project No. BRZ-1718(3)
State Project No. 8.2732701
TIP No. B-3126**

In addition to the General Nationwide Permit Conditions, Section 401 and 404 Conditions, Regional Conditions, State Consistency Conditions, NCDOT's Guidelines for Best Management Practices for the Protection of Surface Waters, General Certification Conditions, and Section 401 Conditions of Certification, the following special commitments have been agreed to by NCDOT:

1. Commitments Developed through Planning Process:

Roadway Design Unit, Roadside Environmental Unit, Resident Engineer:

Revegetation: The existing bridge and approaches will be removed after the new bridge is completed, and the area will be revegetated with appropriate plant species.

Division 11 Construction Engineer:

Bridge Demolition: The bridge railings, deck, and superstructure are composed of steel. The substructure is composed of timber on concrete sills. The bridge rail, asphalt wearing surface, superstructure and timber components of the substructure will be removed without dropping any material into Waters of the United States. However, there is potential for other components of the bridge to be dropped into Waters of the U.S. during construction. The resulting temporary fill associated with the concrete sills would be approximately 18 cubic yards. During construction, Best Management Practices for Bridge Demolition and Removal will be followed.

Construction Access: Construction access shall be from east side of the proposed bridge, if practical.

Division 11 Construction Engineer, Project Development & Environmental Analysis Branch (Natural Environment Unit), Roadside Environmental Unit:

Federally Protected Species: The dwarf-flowered heartleaf plant will be affected by the proposed project. Mitigation activities will be carried out as agreed during the Section 7 Process and as specified in the Biological Opinion (BO) and Amended BO rendered by the U.S. Fish and Wildlife Service (USFWS). The major mandatory requirements of the Biological Opinion are summarized as follows:

1. Cut and fill slopes would be set at 2:1, the maximum allowed by soil standards in the area.
2. Storm-water discharge will be directed to the east side of the road to avoid discharge into Subpopulation A (which is located SW of bridge).
3. Construction limits in the area where the dwarf-flowered heartleaf is found would be limited to 5 feet outside the slope stakes.
4. Areas containing dwarf-flowered heartleaf plant, but not impacted by the project, will be clearly marked prior to any ground-disturbing activity on the site to assure construction does not affect those plants.
5. A USFWS biologist will attend the preconstruction meeting to discuss (a) the importance of avoiding the plants and (b) other environmental commitments on the project.
6. The area of the existing bridge will be regraded and revegetated to mimic adjacent conditions and provide future potential habitat for *H. naniflora* at that site.
7. The NCDOT will permanently protect approximately 90 dwarf-flowered heartleaf plants in the expanded Right-of-Way in the northeast quadrant. It was determined that additional on-site protection was not feasible. To offset the additional impacts, the NCDOT/FHWA has agreed to fund a temporary staff position for 2 months to assist our Recovery Coordinator with the 5-year status review for *H. naniflora*.

2. Commitments Developed through Section 401/404 Permitting Process:

Division 11 Construction Engineer, Project Development & Environmental Analysis Branch (Natural Environment Unit), Roadside Environmental Unit:

404 Condition #1: All recommendations in the attached letters from the North Carolina Wildlife Resources Commission dated March 19, 1999, and May 23, 2000 (included in the Categorical Exclusion), are hereby incorporated as special conditions of this permit with one exception: Condition #6 of the May 23rd letter is not required due to prior coordination with the U.S. Fish and Wildlife Service and the resulting Biological Opinion

404 Condition #4: Authorization under this Corps permit is conditional upon compliance with all the conservation recommendations associated with the original and amended BO from USFWS. *The seven (7) conditions included in the "Federally Protected Species" section above include all of the recommendations from the original and amended BO.*

Project Development & Environmental Analysis Branch (Natural Environment Unit), Roadside Environmental Unit:

404 Condition #2: The unavoidable impacts to warm water streams resulting in the permanent loss of 35 linear feet of warm water streams associated with this project shall be mitigated by NCDOT by providing 35 linear feet of restoration of equivalent warm water stream length, in the Catawba River Basin (Hydrologic Cataloging Unit 03050101). *The North Carolina Ecosystem Enhancement Program (EEP) will provide this mitigation, as indicated in their Mitigation Acceptance letter (attached), dated March 13, 2006.*

404 Condition #3: The proposed stream relocation will be utilized using all proposed methods including buffers as described in the proposal and within e-mails between USACE and NCDOT representatives, and shall be completed prior to, or commensurate with the impacts.

401 Condition #7: Compensatory mitigation for impacts to 315 linear feet of stream at a replacement ratio of 1:1 is required. Compensatory mitigation for impacts to jurisdictional streams shall be provided by onsite relocation of 315 linear feet of an unnamed tributary to Gunpowder Creek. The onsite stream relocation shall be constructed in accordance with the design submitted in your April 3, 2007 application. Please be reminded that as-builts for the completed stream shall be submitted to the North Carolina Division of Water Quality 401/Wetlands Unit with the as-builts for the rest of the project. If the parameters of this condition are not met, then the permittee shall supply additional stream mitigation for the 315 linear feet of impacts. All channel relocation will be constructed in a dry work area, 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. All stream relocation shall have a 50-foot wide native wooded buffer planted on both sides of the stream unless otherwise authorized by this Certification. A transitional phase incorporating rolled erosion control product (RECP) and appropriate temporary ground cover is allowable.

401 Condition #8: Compensatory mitigation for an additional 35 linear feet of impact, in an unnamed tributary to Gunpowder Creek, is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through EEP, and that EEP has agreed to implement the mitigation for the project. EEP has indicated in a letter dated March 13, 2006, that they will assume responsibility for satisfying the Federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the Tri-Party MOA signed on July 22, 2003 and the Dual-Party MOA signed on April 12, 2004.

401 Condition #9: The permittee shall visually monitor the vegetative plantings to assess and ensure complete stabilization of the mitigation stream segments. The monitoring shall be conducted annually for a minimum of three (3) years after final planting. Photo documentation should be utilized to document the success of the riparian vegetation and the results submitted in a final report to DWQ within sixty (60) days after completing the monitoring. After three (3) years a site visit shall be conducted by DWQ staff to "close out" the mitigation site.

Roadside Environmental Unit:

401 Condition #1: 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. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.

401 Condition #3: 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.

401 Condition #4: Adequate sediment and erosion control measures should be implemented prior to any ground disturbing activities to minimize impacts to downstream aquatic resources. Temporary cover (wheat, millet or similar annual grain) or permanent herbaceous cover should be planted on all bare soil within fifteen (15) days of ground disturbing activities to provide long-term erosion control. Erosion control matting should be used in conjunction with appropriate seeding on disturbed soils in steep slope and riparian areas. Matting should be secured in place with staples or wherever possible, live stakes of native trees. Straw mulch and tall fescue should not be used in riparian areas. *Per June 1, 2007 phone conversation with Mike Parker (DWQ), 15 working days is implied.*

401 Condition #12: The post-construction removal of temporary work pads will need to return the project site to its preconstruction contours and elevations. The impacted areas shall be revegetated with appropriate native species. Disturbed floodplains and streams should be restored to natural geomorphic conditions.

401 Condition #13: The existing roadway that is to be eliminated should be restored back to original ground elevations and the natural floodplain elevations and functions restored. Disturbed areas should be seeded or mulched to stabilize the soil and native tree species should be planted with spacing of not more than 10ft. x 10ft.

401 Condition #14: Native riparian vegetation (e.g. rhododendron, dog hobble, willows, alders, sycamores, dogwoods, black walnut and red maple) must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.

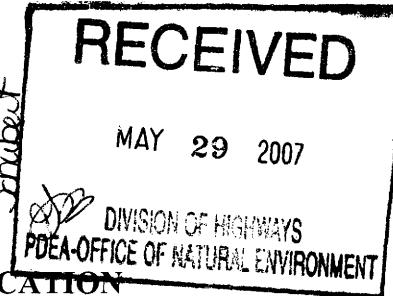
Division 11 Construction Engineer:

401 Condition #5: 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.

401 Condition #15: The use of riprap above the Normal High Water Mark shall be minimized. Any riprap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage.

401 Condition #22: 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 the certification.

U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT



Action ID. SAW-2007-1591-214 County: Caldwell USGS Quad: Granite Falls

GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION

Property Owner / Authorized Agent: Gregory J. Thorpe
Address: ATTN: Erin Schubert
1548 Mail Service Center
Raleigh, NC 27699

Telephone No.: 919-733-3141

Size and location of property (water body, road name/number, town, etc.): The project site is located at Bridge 90 over Gunpowder Creek on SR 1718 (Deal Mill Road) near Granite Falls, Caldwell County, North Carolina. The project number for this proposal is B-3126. Gunpowder Creek is a tributary to the Catawba River within the Catawba River Basin.

Description of projects area and activity: This verification allows for 145 linear feet of temporary stream impacts and 350 linear feet of permanent stream impacts during the replacement of an existing bridge. Mitigation will be completed by relocation of 315 linear feet of stream assessed under the permanent impacts. The remaining 35 linear feet of permanent impacts will be mitigated via NCEEP. See Permit Conditions below for more information.

Applicable Law: Section 404 (Clean Water Act, 33 USC 1344)
 Section 10 (Rivers and Harbors Act, 33 USC 403)
Authorization: Regional General Permit Number: 31
Nationwide Permit Number: _____

Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the attached conditions and your submitted plans. Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order and/or appropriate legal action.

This verification is valid until the NWP is modified, reissued, or revoked. All of the existing NWPs are scheduled to be modified, reissued, or revoked prior to March 18, 2007. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice when the NWPs are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit. If, prior to the expiration date identified below, the nationwide permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all new and/or modified terms and conditions. The District Engineer may, at any time, exercise his discretionary authority to modify, suspend, or revoke a case specific activity's authorization under any NWP.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Quality (telephone (919) 733-1786) to determine Section 401 requirements.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management .

This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits.

If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact Monte Matthews.

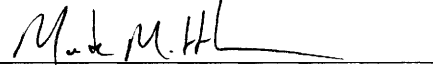
Permit Conditions:

1. All recommendations in the attached letters from the North Carolina Wildlife Resources Commission dated March 19, 1999, and May 23, 2000, are hereby incorporated as special conditions of this permit with one exception: Condition #6 of the May 23rd letter is not required due to prior coordination with the U.S. Fish and Wildlife Service and the resulting Biological Opinion.

2. The unavoidable impacts to warm water streams resulting in the permanent loss of 35 linear feet of warm water streams associated with this project shall be mitigated by NCDOT by providing 35 linear feet of restoration equivalent warm water stream length, in the Catawba River basin (Hydrologic Cataloging Unit 03050101). Based on your application, you intend to utilize the Ecosystem Enhancement Program (EEP) as recommended in our letter dated September 1, 2004 from Mr. Ken Jolly to Dr. Gregory J. Thorpe. Until the Corps receives a confirmation letter from EEP that EEP is willing to provide mitigation for this project, NCDOT is responsible for this mitigation requirement. If the Corps has not received confirmation from EEP within 150 days of the date of this verification, NCDOT shall provide plans to accomplish the required mitigation to the Corps of Engineers within 210 days of the date of this verification.

3. The proposed stream relocation will be utilized using all proposed methods including buffers as described in the proposal and within emails between USACE and NCDOT representatives, and shall be completed prior to, or commensurate with the impacts.

4. This Corps permit does not authorize you to take a threatened species, in particular *Hexastylis naniflora* (dwarf-flowered heartleaf). In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g., a Biological Opinion (BO) under the ESA, Section 7, with "incidental take" provisions with which you must comply). The attached U.S. Fish and Wildlife Service (USFWS) BO and amended BO state that incidental take will not apply in this situation because Sections 7(b)(4) and 7(o)(2) of the Endangered Species Act (Act) does not apply to plant species. Therefore, an incidental take statement is not necessary. However, limited protection of listed plants will apply under this proposal as detailed in Section 9(a)(2)(B) of the Act. The attached BO and amended BO contain conservation recommendations to implement species protection in this situation. Your authorization under this Corps permit is conditional upon your compliance with all the conservation recommendations associated the attached BO and amended BO, which are incorporated by reference in this permit. Failure to comply with the conservation recommendations associated with the BO and amended BO would constitute non-compliance with your Corps permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its BO, and with the ESA.

Corps Regulatory Official: Monte Matthews 

Date: May 17, 2007

Expiration Date of Verification: August 31, 2008

SURVEY PLATS, FIELD SKETCH, WETLAND DELINEATION FORMS, PROJECT PLANS, ETC.,
MUST BE ATTACHED TO THE FILE COPY OF THIS FORM, IF REQUIRED OR AVAILABLE.

Copy Furnished:

**North Carolina Department of
Environmental and Natural Resources
Attn: Mike Parker
2090 US Highway 70
Swannanoa, NC 28778**

**WILMINGTON DISTRICT
POST-CONSTRUCTION COMPLIANCE FORM**

Permit Number: SAW-2007-1591-214

Permit Type: General Permit 31

Name of County: Guilford

Name of Permittee: NCDOT-Division 11.

Date of Issuance: May 18, 2007

Project Manager: Monte Matthews

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Attention: CESAW-RG-R
6508 Falls of the Neuse Road Suite 120
Raleigh, North Carolina 27615

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

DEPARTMENT OF THE ARMY
Wilmington District, Corps of Engineers
Post Office Box 1890
Wilmington, North Carolina 28402-1890

Action ID No. 198200031

September 12, 2003

PUBLIC NOTICE
RENEWAL OF REGIONAL GENERAL PERMIT

THE DISTRICT ENGINEER, WILMINGTON DISTRICT, Post Office Box 1890, Wilmington, North Carolina 28402 hereby announces the modification and re-issuance of Regional General Permit (RGP) 198200031 (NCDOT Bridge Construction, Maintenance and Repair) pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344). Title 33, Code of Federal Regulations, Paragraph 325, authorizes the District Engineer to issue regional general permits to authorize activities, which are substantially similar in nature and cause only minimal individual and cumulative environmental impacts.

RGP 198200031 (copy attached) authorizes the construction, maintenance, and repair of NCDOT bridges on waters of the United States that are located in the State of North Carolina. The RGP also includes authorization of cofferdams, abutments, foundation seals, piers, approach fills, detour fills, box culvert installation and temporary construction and access fills associated with bridge construction.

The RGP has been extensively reviewed through a public notice process, and no substantive objections to the modification or re-issuance were received. The U.S. Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) have reviewed this application and have no unresolved concerns.

The RGP is not applicable when the proposed activity would adversely affect areas that possess historic, cultural, scenic, conservation or recreational values.

The RGP was not found to be controversial or to have a significant effect on the quality of the human environment. The RGP was also not found to be a major federal action that would significantly affect the human environment; and hence, detailed statements under Section 102(2)(c) of the National Environment Policy Act of 1969 were not prepared.

The decision to modify and reissue the RGP was based on evaluations of the probable impacts, including cumulative impacts of the proposed activities and their intended use on the public interest. The re-issuance of the RGP will not be contrary to the general public interest provided those availing themselves of the authority comply with the general and special conditions incorporated in the RGP.

Additional information concerning this RGP can be obtained from Richard K. Spencer, Regulatory Division, Wilmington District Office, U.S. Army Corps of Engineers, Post Office Box 1890, Wilmington, North Carolina 28402-1890 or telephone (910) 251-4172.

DEPARTMENT OF THE ARMY
Wilmington District, Corps of Engineers
Post Office Box 1890
Wilmington, North Carolina 28402-1890

Regional General Permit No. 198200031

Name of Permittee: General Public

Effective Date: September 1, 2003

Expiration Date: August 31, 2008

**DEPARTMENT OF THE ARMY
REGIONAL GENERAL PERMIT**

A regional general permit (RGP) to perform work in or affecting navigable waters of the United States and waters of the United States, upon recommendation of the Chief of Engineers, pursuant to Section 10 of the Rivers and Harbors Act of March 3, 1899 (33 U.S.C. 403), and Section 404 of the Clean Water Act (33 U.S.C. 1344), is hereby modified and re-issued by authority of the Secretary of the Army by the

District Engineer
U.S. Army Engineer District, Wilmington
Corps of Engineers
Post Office Box 1890
Wilmington, North Carolina 28402-1890

TO AUTHORIZE THE DISCHARGE OF DREDGED OR FILL MATERIAL IN WATERS OF THE UNITED STATES, INCLUDING WETLANDS, ASSOCIATED WITH THE CONSTRUCTION, MAINTENANCE AND REPAIR OF BRIDGES, INCLUDING COFFERDAMS, ABUTMENTS, FOUNDATION SEALS, PIERS, APPROACH FILLS, DETOUR FILLS, BOX CULVERT INSTALLATION AND TEMPORARY CONSTRUCTION AND ACCESS FILLS, IN WATERS OF THE UNITED STATES AS PART OF WORK CONDUCTED BY THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) OR OTHER STATE, FEDERAL OR LOCAL GOVERNMENTAL ENTITY, IN THE STATE OF NORTH CAROLINA.

1. Special Conditions.

a. Written confirmation that the proposed work complies with this RGP must be received from the Wilmington District Engineer prior to the commencement of any work. To enable this determination to be made, the permittee must furnish the Wilmington District Engineer a pre-construction notification with the following information:

- (1) A map indicating the location of the work.
- (2) Plans of the proposed work showing all pertinent structures, elevations, dimensions and quantities of materials and locations of all structures and/or fill in wetlands or waterward of the normal/high water elevation contours.
- (3) A brief discussion of the affected aquatic resources, including streams and wetlands. The discussion shall include the identification and types of vegetation present.
- (4) Approximate commencement and completion dates.
- (5) A description of methods to be employed to avoid and/or minimize permanent and temporary impacts to aquatic resources caused by the proposed work.
- (6) Plans, including timetables and techniques, for construction, stabilization and removal of all unavoidable temporary fills.
- (7) Names and addresses of adjoining property owners.

b. In the case of fills of one acre or less, including permanent approach fills, detour fills and fills associated with culvert installation, the Corps of Engineers' Project Manager will determine, after appropriate onsite visits and review of plans, if the impacts on aquatic resources, including streams and wetlands, are likely to be such as to require review by Federal and State agencies. If it is determined that impacts are minimal or can be made minimal by changes agreed to by the applicant, a letter of authorization to proceed will be provided. If it is determined that review by Federal and State agencies is necessary to fully evaluate impacts, copies of all plans and materials will be forwarded to the U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), the U.S. Environmental Protection Agency (EPA) and the North Carolina Department of Environment and Natural Resources (NCDENR). These agencies will furnish comments to the Wilmington District Engineer within thirty (30) days.

c. In cases of fills greater than one acre, copies of all plans and materials will be forwarded to the USFWS, the NMFS, the EPA and the NCDENR. These agencies will furnish comments to the Wilmington District Engineer in thirty (30) days. In cases of land disturbing activities comprising more than one acre, a Sedimentation/Erosion Control Plan will be filed with the North Carolina Division of Land Resources, Land Quality Section, thirty (30) days prior to commencing work.

d. Where work is proposed within the twenty (20) coastal counties, as defined by the North Carolina Division of Coastal Management, the applicant shall forward a copy of the pre-construction notification to:

**National Marine Fisheries Service
101 Pivers Island Road
Beaufort, North Carolina 28516**

The counties in which this condition applies are:

Beaufort	Hertford	Bertie	Hyde	Brunswick
New Hanover	Camden	Onslow	Carteret	Pamlico
Chowan	Pasquotank	Craven	Pender	Currituck
Perquimans	Dare	Tyrrell	Gates	Washington

e. In the event that any Federal agency maintains an objection or any required State authorization is outstanding, no notice to proceed will be given until objections are resolved and State authorizations are issued.

f. No work will proceed until after the applicant has received written notice to proceed from the Wilmington District Engineer. This notice may include additional conditions and/or restrictions. Copies of the notice to proceed will be furnished to the USFWS, the NMFS, the EPA and the NCDENR with a brief description of the work, including the area of wetlands affected and the quantity of fill material.

g. Upon completion of any work authorized by this RGP, all temporary fills will be completely removed and the area reestablished as a wetland by restoring natural hydrology and native vegetation. Stream contours and riparian vegetation will be reestablished upon the removal of temporary culverts. In such instances, a restoration plan will be submitted to the Wilmington District Engineer for approval. Information in the restoration plan will be in accordance with special condition i. below.

h. Appropriate soil and erosion control measures must be established and maintained during construction. All fills, temporary and permanent, must be adequately stabilized at the earliest practicable date to prevent erosion of fill material into adjacent waters or wetlands.

i. In cases where new alignment approaches are to be constructed and the existing wetland approach fill is to be abandoned and no longer to be maintained as a roadway, the abandoned fill shall be removed and the area reestablished as a wetland. In such instances, a restoration plan will be submitted to the Wilmington District Engineer for approval. Information in the restoration plan will be in accordance with special condition i. below.

j. Discharges of dredged or fill material into waters of the United States, including wetlands, must be minimized or avoided to the maximum extent practicable. In reviewing an activity, the Wilmington District Engineer will first determine whether the activity will result in more than minimal adverse environmental affects. For activities that are determined to have more than minimal impacts, compensatory mitigation will be required. To expedite the process, the applicant will provide a mitigation plan with the request for authorization. Site specific mitigation proposals will include, but are not necessarily limited to, a description of work, a

schedule of work and a monitoring plan, and they will be in accordance with currently approved Wilmington District and/or Corps-wide mitigation guidelines. The applicant may propose other forms of mitigation, such as mitigation bank credits or in-lieu fee mitigation with the notification, which in some situations and at the discretion of the Wilmington District, may be considered acceptable mitigation.

k. Activities in any North Carolina designated "Mountain Trout Waters" must comply with all pH, temperature and turbidity criteria established for such waters by the North Carolina Wildlife Resources Commission (NCWRC) and/or the North Carolina Division of Water Quality (NCDWQ). Work that may result in the sedimentation of trout waters will generally be prohibited from October 15 to April 15, of any year, to avoid impacts on trout spawning.

l. Before discharging dredged or fill material into waters of the United States, including wetlands, in the twenty-five (25) mountain counties of North Carolina that contain trout waters, the applicant will obtain and provide a letter of comments and recommendations from the North NCWRC on the proposed activities. A discussion of alternatives to working in the mountain trout waters and why alternatives were not selected, and a plan to provide compensatory mitigation for all unavoidable adverse impacts to the mountain trout waters shall also be submitted with the letter from NCWRC. To facilitate coordination with the NCWRC, the proponent may provide a copy of the notification to the NCWRC concurrent with the notification to the District Engineer. The NCWRC will respond both to the proponent and directly to the Corps of Engineers.

The applicant should contact:

**North Carolina Wildlife Resources Commission
Habitat Conservation Program Manager
1721 Mail Service Center
Raleigh, North Carolina 27699-1721
Telephone (919) 733-7638**

The counties in which this condition applies are:

Alleghany	Ashe	Avery	Buncombe	Burke
Caldwell	Cherokee	Clay	Graham	Haywood
Henderson	Jackson	Macon	Madison	McDowell
Mitchell	Polk	Rutherford	Stokes	Surry Swain
Transylvania	Watauga	Wilkes	Yancey	

m. This permit does not authorize the use of culverts in areas designated as anadromous fish spawning areas by the North Carolina Division of Marine Fisheries (NCDMF) or the North Carolina Wildlife Resources Commission (NCWRC).

n. Discharges into Waters of the United States designated by either the North Carolina Division of Marine Fisheries (NCDMF) or the NCWRC as anadromous fish spawning area are prohibited during the period between February 15 and June 30, without prior written approval

from NCDMF or NCWRC and the Corps. Discharges into waters of the United States designated by NCDMF as primary nursery areas and discharges into waters of the United States designated by NCWRC as inland nursery areas shall be coordinated with NCDMF and NCWRC prior to being authorized by this RGP. Coordination with NCDMF and NCWRC may result in a required construction moratorium during periods of significant biological productivity or critical life stages.

The Applicant should contact:

NC Division of Marine Fisheries
3441 Arendell Street
Morehead City, NC 28557
Telephone 252-726-7021
or 800-682-2632

North Carolina Wildlife Resources Commission
Habitat Conservation Program Manager
1721 Mail Service Center
Raleigh, NC 27699-1721
Telephone (919) 733-7638

o. No activity may result in substantial permanent disruption of the movement of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area.

p. This permit generally allows the permanent installation of culverts to 100 feet in length. For culverts longer than 100 feet, the proposed application will be closely evaluated to determine if unacceptable impacts on movement of aquatic organisms would result. In such cases, approval may not be provided.

q. If the project is located within the twenty (20) counties of North Carolina designated as coastal counties by the Coastal Area Management Act (CAMA), then all pipe and culvert inverts will be buried at least one foot below normal bed elevation when they are placed within the Public Trust Area of Environmental Concern (AEC) and/or the Estuarine Waters AEC as designated by CAMA, and/or all streams appearing as blue lines on United States Geological Survey (USGS) quad sheets. If the project is not located within the twenty (20) counties of North Carolina designated as coastal counties by CAMA, then culvert inverts will be buried at least one foot below the bed of the stream for culverts greater than 48 inches in diameter. For culverts 48 inches in diameter or smaller, culverts must be buried below the bed of the stream to a depth equal to or greater than 20 percent of the diameter of the culvert. Bottomless arch culverts will satisfy this condition. A waiver from the depth specifications in this condition may be requested in writing. The waiver will only be issued if it can be demonstrated that the impacts of complying with this condition would result in more adverse impacts to the aquatic environment.

r. All activities authorized by this RGP shall, to the extent practicable, be conducted "in the dry", with barriers installed between work areas and aquatic habitat to protect that habitat from cement or other pollutants. Where concrete is utilized, measures will be taken to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with waters of the state until the concrete has hardened. Water in the work area will be pumped to holding and settling ponds as practicable, and water will not be allowed to re-enter the water column until decanted.

s. If the project authorized by this RGP is proposed by a Federal or State agency, and is located within the twenty (20) counties of North Carolina designated as coastal counties by the CAMA, then prior to project initiation the proponent must obtain a determination of consistency with the state's coastal management program from the N.C. Division of Coastal Management (DCM). A copy of the state's consistency determination must be provided to the appropriate Wilmington District Regulatory Office at the following address:

Wilmington Regulatory Field Office
P.O. Box 1890
Wilmington, NC 28402

Washington Regulatory Field Office
P.O. Box 1000
Washington, NC 27889

The state's consistency determination will be conveyed in the form of a CAMA permit if the project is located within a designated CAMA Area of Environmental Concern (AEC), and will be conveyed in the form of a Consistency Determination letter from DCM if the project is not located within a designated CAMA AEC.

t. No work shall be authorized by the RGP within the twenty coastal counties, as defined by the North Carolina Division of Coastal Management, without prior consultation with NOAA Fisheries. For each activity reviewed by the Corps of Engineers where it is determined that the activity may affect Essential Fish Habitat (EFH) for Federally managed species, an EFH Assessment shall be prepared by the applicant and forwarded to the Corps of Engineers and NOAA Fisheries for review and comment prior to authorization of work.

u. All work will comply with Water Quality Certification No. 3404, issued by the NCDWQ on 28 March 2003.

v. The activity must be designed to maintain preconstruction downstream flow conditions (e.g., location, capacity, and flow rates). Furthermore, the activity must not permanently restrict or impede the passage of normal or expected high flows and the structure or discharge of dredged or fill material must withstand expected high flows

2. General Conditions.

a. All activities authorized by this RGP that involve the discharge of dredged or fill material in waters of the United States will be consistent with applicable water quality standards, effluent limitations and standards of performance, prohibitions, pre-treatment standards and management practices established pursuant to the Clean Water Act (33 U.S.C. 1344) and applicable State and local law. If the proposed activity involves the discharge of dredged or fill material in waters of the United States, prior to the commencement of any work, the applicant will satisfy the NCDWQ regarding the need for a Water Quality Certification pursuant to Section 401 of the Clean Water Act.

b. There will be no unreasonable interference with navigation or the right of the public to riparian access by the existence or use of activities authorized by this RGP.

c. A permittee, upon receipt of written notice from the Wilmington District Engineer of failure to comply with the terms or conditions of this RGP, will, within 60 days, without expense to the U.S. Government, and in such manner as the Wilmington District Engineer may direct, affect compliance with the terms and conditions or return the worksite to a pre-work condition.

d. The permittee must make every reasonable effort to perform the work authorized herein in a manner so as to minimize any adverse impact on fish, wildlife and natural environmental values.

e. The permittee must perform the work authorized herein in a manner so as to minimize any degradation of water quality. The activity will be conducted in such a manner as to prevent a significant increase in turbidity outside the area of construction or construction-related discharge. Increases such that the turbidity in the water body is 50 NTU's or less in all rivers not designated as trout waters by the North Carolina Division of Environmental Management (NCDEM), 25 NTU's or less in all saltwater classes and in all lakes and reservoirs, and 10 NTU's or less in trout waters, are not considered significant.

f. The permittee will permit the Wilmington District Engineer or his representative to make periodic inspections at any time deemed necessary in order to assure that the activity is being performed or maintained in strict accordance with the Special and General Conditions of this permit.

g. This RGP **does not** convey any rights, either in real estate or material, or any exclusive privileges; and it does not authorize any injury to property or invasion of rights or any infringement of Federal, State or local laws or regulations, nor does it obviate the requirement to obtain State or local assent required by law for the activity authorized herein. These may include, but are not necessarily limited to, a Dredge and/or Fill Permit (N.C.G.S. 113-229), a CAMA Permit (N.C.G.S. 113A-118), an Easement to Fill (N.C.G.S. 146-12) and a Water Quality Certification pursuant to Section 401 of the Clean Water Act.

h. Authorization provided by this RGP may be modified, suspended or revoked in whole or in part if the Wilmington District Engineer, acting on behalf of the Secretary of the Army, determines that such action would be in the best public interest. Unless subject to modification, suspension or revocation, the term of this RGP shall be five years. Any modification, suspension or revocation of this authorization will not be the basis for any claim for damages against the U.S. Government.

i. This RGP does not authorize the interference with any existing or proposed Federal project and the permittee will not be entitled to compensation for damages or injury to the structures or work authorized herein which may be caused by or results from existing or future operations undertaken by the United States in the public interest.

j. This RGP will not be applicable to proposed construction when the Wilmington District Engineer determines that the proposed activity would significantly affect the quality of the human environment and determines that an Environmental Impact Statement (EIS) must be prepared.

k. This RGP will not be applicable to proposed construction when the Wilmington District Engineer determines, after any necessary investigations, that the proposed activity would adversely affect areas that possess historic, cultural, scenic, conservation or recreational values. Application of this exemption applies to:

(1) Rivers named in Section 3 of the Wild and Scenic Rivers Act (15 U.S.C. 1273), those proposed for inclusion as provided by Sections 4 and 5 of the Act and wild, scenic and recreational rivers established by State and local entities.

(2) Historic, cultural or archeological sites listed in or eligible for inclusion in the National Register of Historic Places as defined in the National Historic Preservation Act of 1966 as amended, the Abandoned Shipwreck Act of 1987 and the Native American Graves Protection and Repatriation Act.

(3) Sites included in or determined eligible for listing in the National Registry of Natural Landmarks.

(4) Endangered or threatened species or critical habitat of such species as determined by the Secretaries of Interior or Commerce and concerned in accordance with the Endangered Species Act (16 U.S.C. 1531).

(5) NOAA designated marine sanctuaries, National Estuarine Research Reserves, and coral reefs.

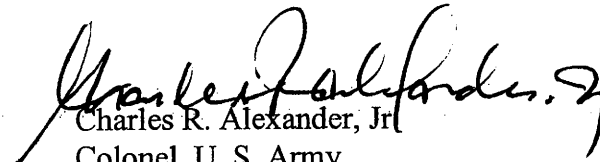
l. Permittees are advised that activities in or near a floodway may be subject to the National Flood Insurance Program, which prohibits any activities, including fill within a floodway that results in any increase in base flood elevations.

m. At his discretion, the Wilmington District Engineer may determine that this RGP will not be applicable to a specific construction proposal. In such case, the procedure for processing an individual permit in accordance with 33 CFR 325 will be available.

n. The permittee or the permittee's successors will maintain the authorized work in good condition and in conformance with the terms and conditions of the RGP.

o. The discharge of dredged or fill material shall consist of suitable material free from toxic pollutants in toxic amounts.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:



Charles R. Alexander, Jr.
Colonel, U. S. Army
District Engineer



Michael F. Easley, Governor

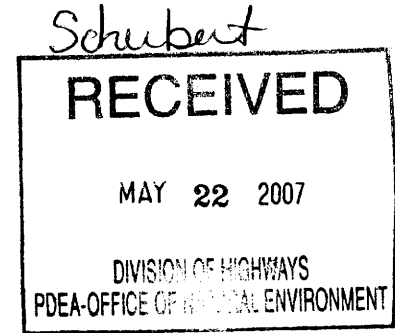
William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

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

May 11, 2007
Caldwell County
DWQ Project No. 070583
Bridge No. 90 NCSR 1718
TIP Project No. B-3126

APPROVAL of 401 Water Quality Certification with Additional Conditions

Dr. Gregory J. Thorpe, PhD., Director
Project Development and Environmental Analysis
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 attached conditions and those listed below, for the following impacts for the purpose of placing temporary and permanent fill material in Gunpowder Creek and in an unnamed tributary to Gunpowder Creek while replacing Bridge No. 90 in Caldwell County:

Stream Impacts in the Catawba River Basin

Site	Permanent Fill in Intermittent Stream (linear ft)	Temporary Fill in Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
Site 1				48	48	0
Site 2				66	66	0
Site 3			350		350	350
Site 4				31	31	0
Total			350	145	495	350

Total Permanent Stream Impact for Project: 350 linear ft. Total Temporary Impact for Project: 145 linear ft.

The project should be constructed in accordance with your application dated April 3, 2007, (received April 4, 2007), including the environmental commitments made in the application letters. After reviewing your application, we have decided that these impacts are covered by General Water Quality Certification Nos. 3627 and 3634. This Certification corresponds to Regional General Permit Number 31 issued by the U.S. Army Corps of Engineers. 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.

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 if 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 be valid, you must follow the conditions listed in the attached certification and any additional conditions listed below.*

1. 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.
2. 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.
3. 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.
4. Adequate sediment and erosion control measures should be implemented prior to any ground disturbing activities to minimize impacts to downstream aquatic resources. Temporary cover (wheat, millet or similar annual grain) or permanent herbaceous cover should be planted on all bare soil within fifteen (15) days of ground disturbing activities to provide long-term erosion control. Erosion control matting should be used in conjunction with appropriate seeding on disturbed soils in steep slope and riparian areas. Matting should be secured in place with staples or wherever possible, live stakes of native trees. Straw mulch and tall fescue should **not** be used in riparian areas.
5. Strict adherence to the most recent version of NCDOT's Best Management Practice For Bridge Demolition and Removal, approved by the US Army Corps of Engineers, is a condition of the 401 Water Quality Certification.
6. Bridge deck drains should not discharge directly into streams. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grass swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of *Stormwater Best Management Practices*.
7. Compensatory mitigation for impacts to 315 linear feet of stream at a replacement ratio of 1:1 is required. Compensatory mitigation for impacts to jurisdictional streams shall be provided by onsite relocations of 315 linear feet of an unnamed tributary to Gunpowder Creek. The onsite stream relocation shall be constructed in accordance with the design submitted in your April 3, 2007 application. Please be reminded that as-builts for the completed stream shall be submitted to the North Carolina Division of Water Quality 401/Wetlands Unit with the as-builts for the rest of the project. If the parameters of this condition are not met, then the permittee shall supply additional stream mitigation for the 315 linear feet of impacts. All channel relocations will be constructed in a dry work area, 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. All stream relocations shall have a 50-foot wide native wooded buffer planted on both sides of the stream unless otherwise authorized by this Certification. A transitional phase incorporating rolled erosion control product (RECP) and appropriate temporary ground cover is allowable.

8. Compensatory mitigation for an additional 35 linear feet of impact, in an unnamed tributary to Gunpowder Creek, is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Ecosystem Enhancement Program (EEP), and that EEP has agreed to implement the mitigation for the project. EEP has indicated in a letter dated March 13, 2006, that they will assume responsibility for satisfying the Federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the Tri-Party MOA signed on July 22, 2003 and the Dual-Party MOA signed on April 12, 2004.
9. The permittee shall visually monitor the vegetative plantings to assess and ensure complete stabilization of the mitigation stream segments. The monitoring shall be conducted annually for a minimum of three (3) years after final planting. Photo documentation should be utilized to document the success of the riparian vegetation and the results submitted in a final report to DWQ within sixty (60) after completing the monitoring. After three (3) years a site visit shall be conducted by DWQ staff to "close out" the mitigation site.
10. 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.
11. Only clean and sediment free riprap shall be used and placed in surface waters.
12. The post-construction removal of temporary work pads will need to return the project site to its preconstruction contours and elevations. The impacted areas shall be revegetated with appropriate native species. Disturbed floodplains and streams should be restored to natural geomorphic conditions.
13. The existing roadway that is to be eliminated should be restored back to original ground elevations and the natural floodplain elevations and functions restored. Disturbed areas should be seeded or mulched to stabilize the soil and native tree species should be planted with spacing of not more than 10ft. x 10ft.
14. Native riparian vegetation (e.g. rhododendron, dog hobble, willows, alders, sycamores, dogwoods, black walnut and red maple) must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
15. The use of riprap above the Normal High Water Mark shall be minimized. Any riprap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage.
16. Heavy equipment should be operated from the banks rather than in the stream channels 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 daily and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials.
19. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
20. If concrete is used during construction (e.g., headwalls), a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.
21. No rock, sand or other materials shall be dredged from the stream channel, except where authorized by this certification.
22. 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 the certification.
23. A copy of this Water Quality Certification shall be maintained 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 permittee and its authorized agents shall conduct its activities in a manner consistent with State water other appropriate requirements of State or Federal law. If DWQ determines that such standards or laws are not being met (including failure to sustain a designated 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.
25. 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.

Dr. Gregory J. Thorpe, PhD.

May 11, 2007

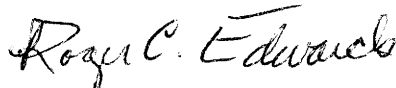
Page Four


26. Upon completion of the project, the NCDOT Division Engineer, shall complete and return the enclosed "Certificate of Completion Form" to notify NCDWQ when all work included in the §401 Certification has been completed. This form shall be returned to the Transportation Permitting Unit of the NC Division of Water Quality, 2321 Crabtree Blvd., Suite 250, Raleigh, North Carolina 27604.

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, which 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 letter completes the review of the Division of Water Quality under Section 401 of the Clean Water Act. If you have any questions, please telephone Mr. Mike Parker of the Asheville Regional Office at 828.296.4500.

Sincerely,



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

cc: Mr. Mike Pettyjohn, P.E. Division 14 Engineer
Mr. Heath Slaughter, Division 14 Environmental Officer
Mr. Monte Matthews, USACE Raleigh Field Office
Transportation Permitting Unit
Mike Parker, Asheville Regional Office

WQC #3627

**GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE FOR CORPS OF ENGINEERS
NATIONWIDE PERMIT NUMBER 14 (ROAD CROSSINGS) AND REGIONAL GENERAL
PERMIT 198200031 (WORK ASSOCIATED WITH BRIDGE CONSTRUCTION, MAINTENANCE
OR REPAIR CONDUCTED BY NCDOT OR OTHER GOVERNMENT AGENCIES)
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 (DWQ) Regulations in 15A NCAC 2H, Section .0500 and 15A NCAC 2B .0200 for the discharge of fill material to waters and adjacent wetland areas or to wetland areas that are not a part of the surface tributary system to interstate waters or navigable waters of the United States (i.e., isolated wetlands) as described in 33 CFR 330 Appendix A (B) (14) of the Corps of Engineers regulations (Nationwide Permit No. 14 and Regional General Permit 198200031) and for the Riparian Area Protection Rules (Buffer Rules) in 15A NCAC 2B .0200. The category of activities shall include any fill activity for road crossings and is limited to fill less than one-third acre in tidal waters and less than one-half acre in non-tidal waters. This Certification replaces Water Quality Certification Number 2177 issued on November 5, 1987, Water Quality Certification Number 2666 issued on January 21, 1992, Water Quality Certification Number 2732 issued on May 1, 1992, Water Quality Certification Number 3103 issued on February 11, 1997, Water Quality Certification Number 3289 issued on June 1, 2000 and Water Quality Certification Number 3375 issued March 18, 2002 and WQC 3404 issued March 28, 2003. This WQC is rescinded when the Corps of Engineers re-authorizes Nationwide Permit 14 or Regional General Permit 198200031 or when deemed appropriate by the Director of 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. Enumerating and Reporting of Impacts:

- Streams - Impacts to streams as determined by the Division of Water Quality shall be measured as length of the centerline of the normal flow channel. Permanent and/or temporary stream impacts shall be enumerated on the entire project for all impacts regardless of which 404 Nationwide Permits are used. Stream relocations and stream bed and/or bank hardening are considered to be permanent stream impacts. Any activity that results in a loss of use of stream functions including but not limited to filling, relocating, flooding, dredging and complete shading shall be considered stream impacts. Enumeration of impacts to streams shall include streams enclosed by bottomless culverts, bottomless arches or other spanning structures when a 404 Permit is used anywhere in a project unless the entire structure (including construction impacts) spans the entire bed and both banks of the stream, is only used for a road, driveway or path crossing, and is not mitered to follow the stream pattern. Impacts for dam footprints and flooding will count toward the threshold for stream impacts, but flooding upstream of the dam will not (as long as no filling, excavation, relocation or other modification of the existing stream dimension, pattern or profile occurs) count towards mitigation requirements.
- Wetlands - Impacts to wetlands as determined by the Division of Water Quality shall be measured as area. Permanent and/or temporary wetland impacts shall be enumerated on the entire project for all impacts regardless of which 404 Nationwide Permits are used. Any activity that results in a loss of use of wetland functions including but not limited to filling, draining, and flooding shall be considered wetland impacts. Enumeration of impacts to wetlands shall include activities that change the hydrology of a wetland when a 404 Permit is used anywhere in a project.

WQC #3627

- Lakes and Ponds – Lake and Pond Impacts Enumeration- Impacts to waters other than streams and wetlands as determined by the Division of Water Quality shall be measured as area. Permanent and/or temporary water impacts shall be enumerated on the entire project for all impacts proposed regardless of which 404 Nationwide Permits are used. Any activity that results in a loss of use of aquatic functions including but not limited to filling and dredging shall be considered waters impacts;
2. Proposed fill or substantial modification of wetlands or waters (including streams) under this General Certification requires application to and prior written concurrence from the Division of Water Quality;
 3. Application to and payment of a fee to DWQ is not required for construction of a driveway to a single family lot as long as the driveway impacts less than 25 feet of stream channel including any in-stream stabilization needed for the crossing;
 4. Impacts to any stream length in the Neuse, Tar-Pamlico or 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 for this Certification 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 and Tar-Pamlico 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;
 5. Irrespective of other application thresholds in this General Certification, all impacts to perennial waters and their associated buffers require written approval from DWQ since such impacts are allowable as provided in 15A NCAC 2B. 0212 (WS-I), 2B .0213 (WS-II), 2B .0214 (WS-III) and 2B .0215 (WS-IV). Only water dependent activities, public projects and structures with diminimus increases in impervious surfaces will be allowed as outlined in those rules. All other activities require a variance from the delegated local government and/or the NC Environmental Management Commission before the 401 Water Quality Certification can be processed. In addition, a 30 foot wide vegetative buffer for low density development or a 100 foot wide vegetative buffer for high density development must be maintained adjacent to all perennial waters except for allowances as provided under the Water Supply Watershed Protection Rules. For the purposes of this condition, perennial waters are defined as those shown as perennial waters on the most recent USGS 1:24,000 topographic map or as otherwise determined by local government studies;
 6. Additional site-specific stormwater management requirements may be added to this Certification at DWQ's discretion on a case by case basis for projects that have or are anticipated to have impervious cover of greater than 30 percent. Site-specific stormwater management shall be designed to remove 85% TSS according to the latest version of DWQ's Stormwater Best Management Practices manual at a minimum.

Additionally, in watersheds within one mile and draining to 303(d) listed waters, as well as watersheds that are classified as nutrient sensitive waters (NSW), water supply waters (WS), trout waters (Tr), high quality waters (HQW), and outstanding resource waters (ORW), the Division shall require that extended detention wetlands, bio-retention areas, and ponds followed by forested filter strips (designed according to latest version of the NC DENR Stormwater Best Management Practices Manual) be constructed as part of the stormwater management plan when a site-specific stormwater management plan is required.

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Alternative designs may be requested by the applicant and will be reviewed on a case-by-case basis by the Division of Water Quality.

Approval of stormwater management plans by the Division of Water Quality's other existing state stormwater programs including appropriate local programs are sufficient to satisfy this Condition as long as the stormwater management plans meet or exceed the design requirements specified in this condition. This condition applies unless more stringent requirements are in effect from other state water quality programs.

- Unless specified otherwise in the approval letter, the final, written stormwater management plan shall be approved in writing by the Division of Water Quality's Wetlands Unit before the impacts specified in this Certification occur.
 - The facilities must be designed to treat the runoff from the entire project, unless otherwise explicitly approved by the Division of Water Quality.
 - Also, before any permanent building or other structure is occupied at the subject site, the facilities (as approved by the Wetlands Unit) shall be constructed and operational, and the stormwater management plan (as approved by the Wetlands Unit) shall be implemented.
 - The structural stormwater practices as approved by the Wetlands Unit as well as drainage patterns must be maintained in perpetuity.
 - No changes to the structural stormwater practices shall be made without written authorization from the Division of Water Quality.
7. Compensatory stream mitigation shall be required at a 1:1 ratio for not only perennial but also intermittent stream impacts 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;
8. In accordance with North Carolina General Statute Section 143-215.3D(e), any application 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 through the Division of Coastal Management and will be the higher of the two fees;
9. 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. For linear public transportation projects, impacts equal to or exceeding 150 feet per stream may require mitigation. 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, unless otherwise specified in the approval letter. The mitigation plan must be implemented and/or constructed before any permanent building or structure on 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. Projects may also be implemented once payment is made to a private mitigation bank or other in-lieu fee program, as specified in the written concurrence of 401 Certification for a project. Please note that if a stream relocation is conducted as a stream restoration as defined in *The Internal Technical Guide for Stream Work in North Carolina*, April 2001, the restored length can be used as compensatory mitigation for the impacts resulting from the relocation;

WQC #3627

10. For any project involving re-alignment of streams, a stream relocation plan must be included with the 401 application for written DWQ approval. Relocated stream designs should include the same dimensions, patterns and profiles as the existing channel, to the maximum extent practical. The new channel should be constructed in the dry and water shall not be turned into the new channel until the banks are stabilized. 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. If suitable stream mitigation is not practical on-site, then stream impact will need to be mitigated elsewhere;
11. 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 to do so 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 as prevent constriction of the floodway that may result in aggradation, degradation or significant changes in hydrology of streams or wetlands;
12. That 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;
13. All sediment and erosion control measures placed in wetlands and waters shall be removed and the original grade restored within two months after the Division of Land Resources has released the project;
14. That additional site-specific conditions may be added to projects proposed under this Certification in order to ensure compliance with all applicable water quality and effluent standards;
15. Measures shall be taken to prevent live or fresh concrete from coming into contact with freshwaters of the state until the concrete has hardened;
16. 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;
17. If this Certification is used to access building sites, all lots owned by the applicant must be buildable without additional fill beyond that explicitly allowed under other General

WQC #3627

Certifications. For road construction purposes, this Certification shall only be utilized from natural high ground to natural high ground;

18. 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;
19. 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 Permit 14 or Regional General Permit 198200031, whichever is sooner.

Non-compliance with or violation of the conditions herein set forth by a specific fill project may result in revocation of this Certification for the project and may also 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 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: 19 March 2007

DIVISION OF WATER QUALITY

By



Alan W. Klimek, P.E.

Director

WQC # 3627

WQC #3634

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 and WQC Number 3366 issued March 18, 2002. This WQC is rescinded when the Corps of Engineers reauthorizes 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;

WQC #3634

4. All sediment and erosion control measures placed in wetlands or waters shall be removed and the natural 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 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. 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 as prevent constriction of the floodway that may result in destabilization 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;

WQC #3634

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: 19 March 2007

DIVISION OF WATER QUALITY

By



Alan W. Klimek, P.E.

Director

WQC # 3634



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 Transportation 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: _____

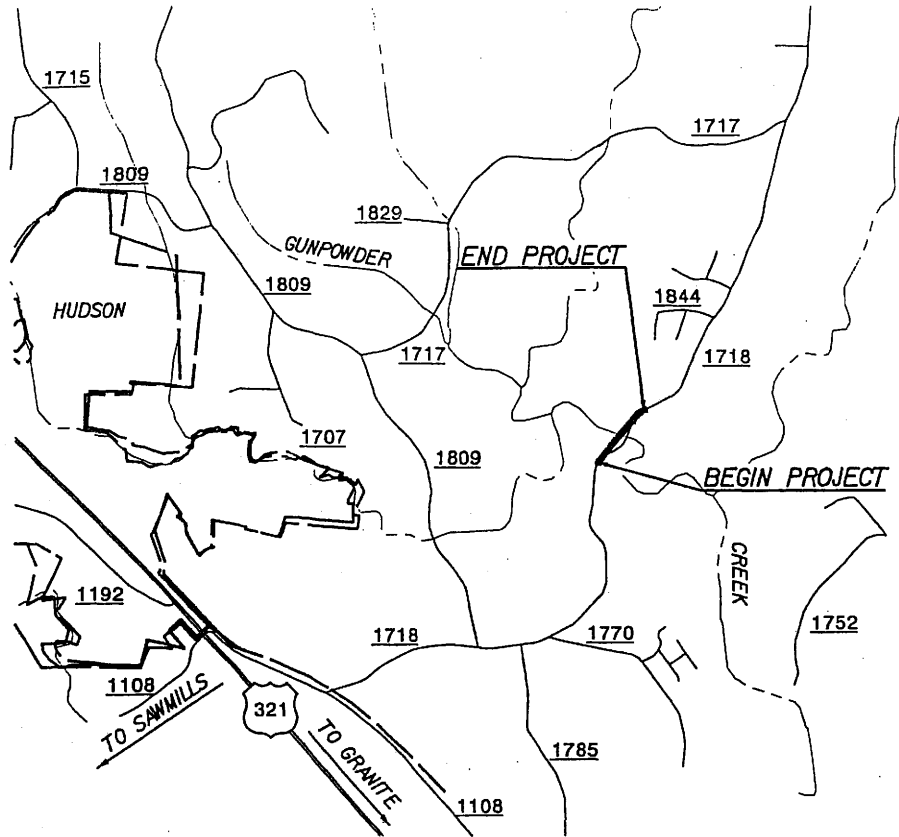
Engineer's Certification

_____ Partial _____ Final

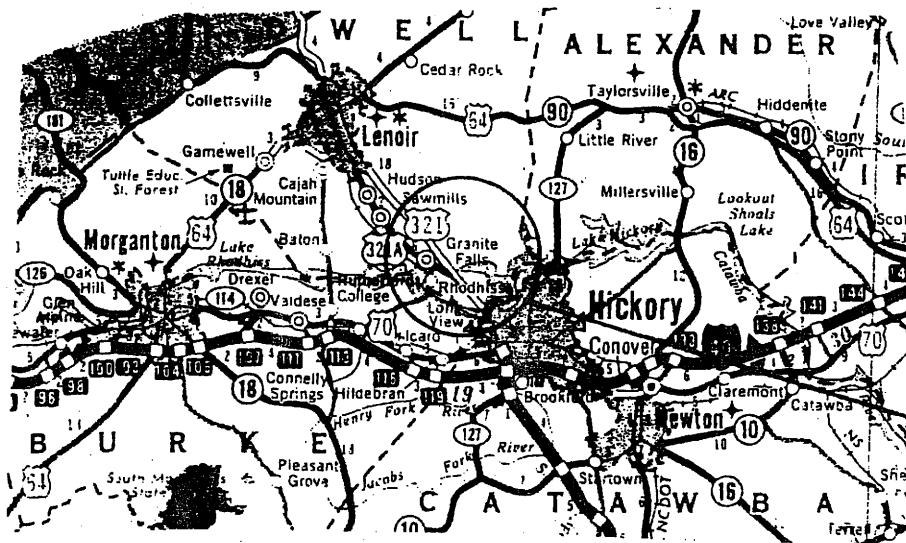
I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project, for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation 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 _____



PORTION OF CALDWELL COUNTY MAP



PORTION OF STATE MAP

RECEIVED
 MAR 20 2007
 DIVISION OF HIGHWAYS
 IDEAL OFFICE OF NATURAL ENVIRONMENT

VICINITY/SITE MAP
 WETLAND/STREAM

NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

CALDWELL COUNTY
 8.2732701(B-3126)
 BRIDGE #90 OVER GUNPOWDER CREEK
 ON SR 1718

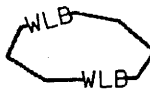
Permit Drawing
 Sheet 1 of 6
 SCALE AS SHOWN


SHEET ___ OF ___

3/7/07
 09 AM
 \\sdc\proj\Permits\AB326_807_PPL_TITLE.dgn

WETLAND//STREAM LEGEND

— WLB — WETLAND BOUNDARY


 WETLAND

 DENOTES FILL IN WETLAND

 DENOTES FILL IN SURFACE WATER

 DENOTES FILL IN SURFACE WATER (POND)

 DENOTES TEMPORARY FILL IN WETLAND

 DENOTES EXCAVATION IN WETLAND

 DENOTES TEMPORARY FILL IN SURFACE WATER

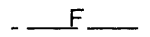
 DENOTES MECHANIZED CLEARING


— FLOW DIRECTION

 TOP OF BANK

 EDGE OF WATER

 PROP. LIMIT OF CUT

 PROP. LIMIT OF FILL

 PROP. RIGHT OF WAY

— NG — NATURAL GROUND

— PL — PROPERTY LINE

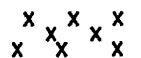
— TDE — TEMP. DRAINAGE EASEMENT


— PDE — PERMANENT DRAINAGE EASEMENT

— EAB — EXIST. ENDANGERED ANIMAL BOUNDARY

— EPB — EXIST. ENDANGERED PLANT BOUNDARY

 WATER SURFACE


 LIVE STAKES

 BOULDER


— CORE FIBER ROLLS

 PROPOSED BRIDGE


 PROPOSED BOX CULVERT

 PROPOSED PIPE CULVERT
 12"-48" PIPES
 54" PIPES & ABOVE

(DASHED LINES DENOTE EXISTING STRUCTURES)


 SINGLE TREE


 WOODS LINE

 DRAINAGE INLET

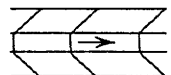
 ROOTWAD

 RIP RAP

 ADJACENT PROPERTY OWNER OR PARCEL NUMBER IF AVAILABLE

 PREFORMED SCOUR HOLE (PSH)

 LEVEL SPREADER (LS)

 GRASS SWALE

Permit Drawing
 Sheet 2 of 6

NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

CALDWELL COUNTY
 8273270(KB-3126)
 BRIDGE #90 OVER GUNPOWDER CREEK
 ON SR 1718

Permit Drawing
 of

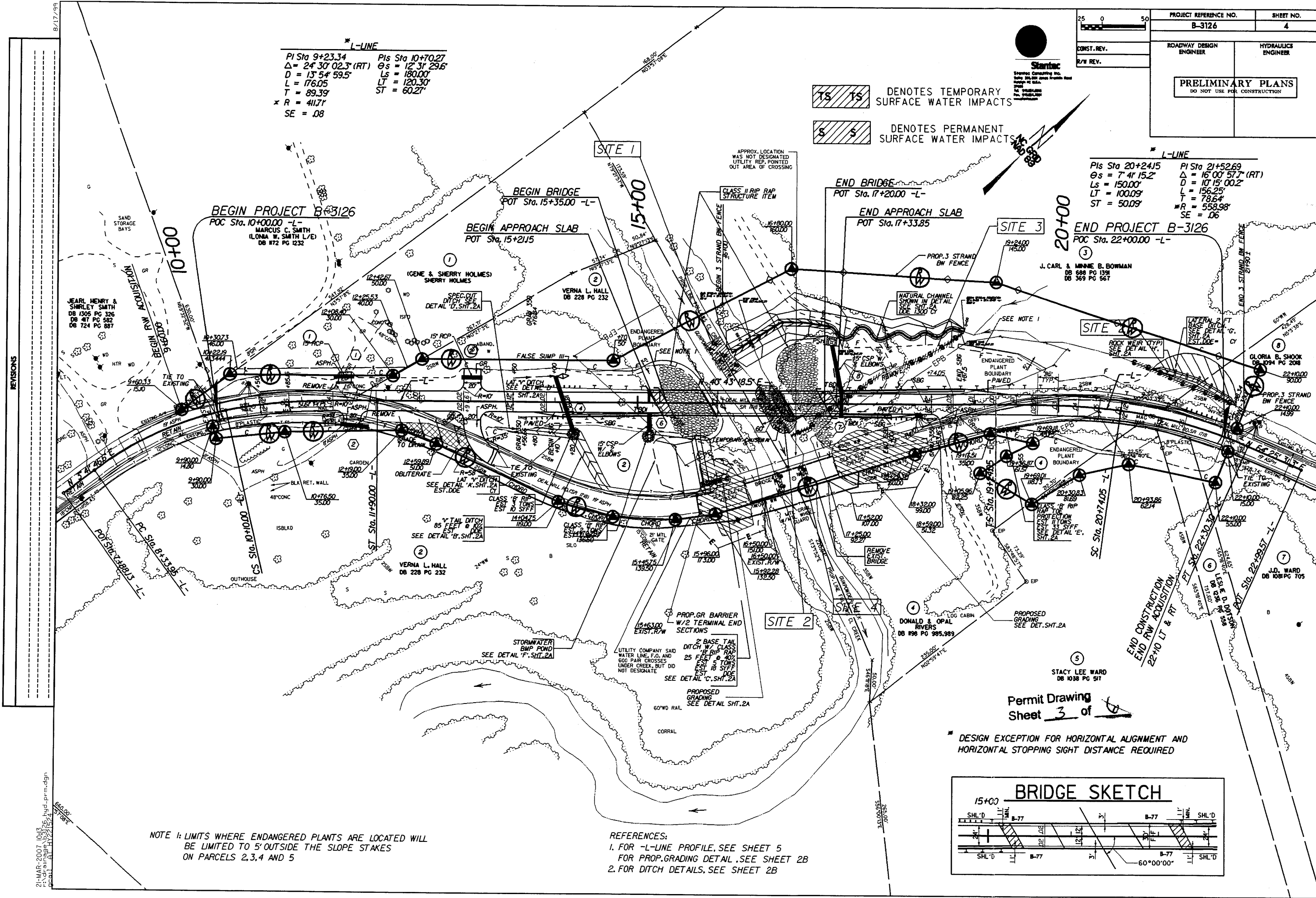
SCALE AS SHOWN SHEET OF

PROJECT REFERENCE NO.	SHEET NO.
B-3126	4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

*** L-LINE**
 PI Sta 9+23.34 PI Sta 10+70.27
 $\Delta = 24^{\circ} 30' 02.3" (RT)$ $\theta_s = 12^{\circ} 31' 29.6"$
 $D = 13^{\circ} 54' 59.5"$ $L_s = 180.00'$
 $L = 176.05'$ $LT = 120.30'$
 $T = 89.39'$ $ST = 60.27'$
 $* R = 411.71'$
 $SE = .08$

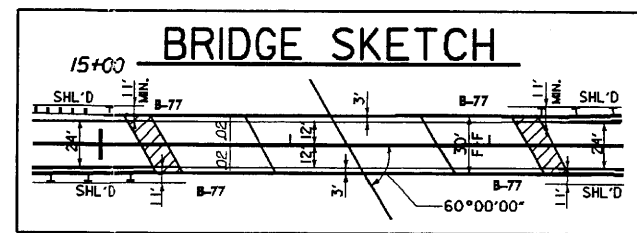
*** L-LINE**
 PI Sta 20+24.15 PI Sta 21+52.69
 $\theta_s = 7^{\circ} 41' 15.2"$ $\Delta = 16^{\circ} 00' 57.7" (RT)$
 $L_s = 150.00'$ $D = 10^{\circ} 15' 00.2"$
 $L = 100.09'$ $L_s = 156.25'$
 $T = 78.64'$ $ST = 50.09'$
 $* R = 558.98'$
 $SE = .06$

DENOTES TEMPORARY SURFACE WATER IMPACTS
 DENOTES PERMANENT SURFACE WATER IMPACTS



NOTE 1: LIMITS WHERE ENDANGERED PLANTS ARE LOCATED WILL BE LIMITED TO 5' OUTSIDE THE SLOPE STAKES ON PARCELS 2,3,4 AND 5

REFERENCES:
 1. FOR -L-LINE PROFILE, SEE SHEET 5
 2. FOR DITCH DETAILS, SEE SHEET 2B



Permit Drawing
 Sheet 3 of 4

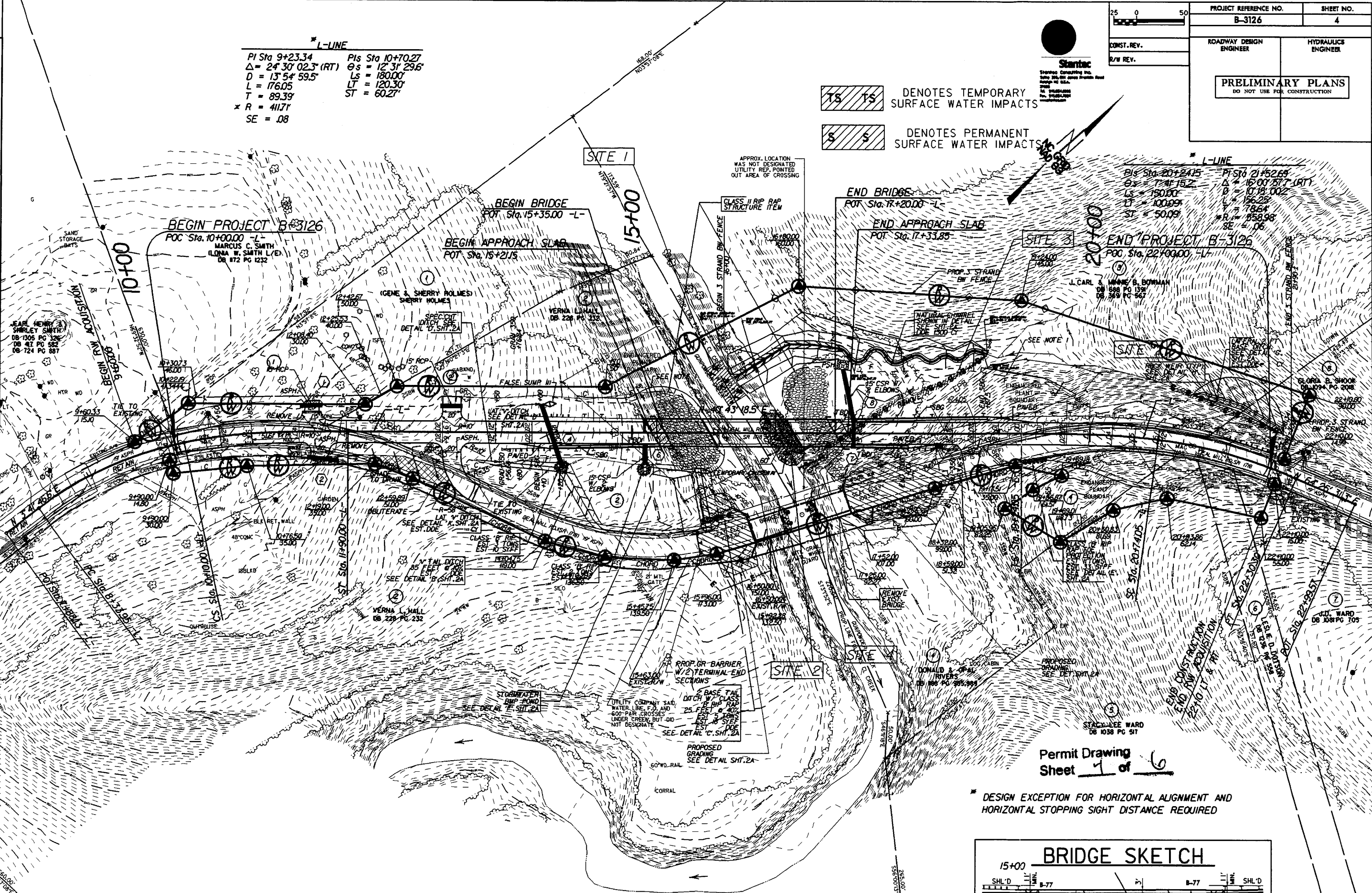
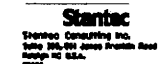
* DESIGN EXCEPTION FOR HORIZONTAL ALIGNMENT AND HORIZONTAL STOPPING SIGHT DISTANCE REQUIRED

REVISIONS

21-MAR-2007 10:43
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 100.00

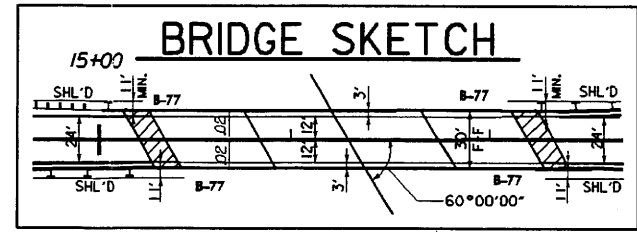
*** L-LINE**
 PI Sta 9+23.34 PIs Sta 10+70.27
 $\Delta = 24^{\circ} 30' 02.3" (RT)$ $\Theta s = 12^{\circ} 31' 29.6"$
 $D = 13^{\circ} 54' 59.5"$ $Ls = 180.00'$
 $L = 176.05'$ $LT = 120.30'$
 $T = 89.39'$ $ST = 60.27'$
 $\times R = 411.71'$
 $SE = .08$

DENOTES TEMPORARY SURFACE WATER IMPACTS
 DENOTES PERMANENT SURFACE WATER IMPACTS



Permit Drawing
 Sheet 1 of 6

* DESIGN EXCEPTION FOR HORIZONTAL ALIGNMENT AND HORIZONTAL STOPPING SIGHT DISTANCE REQUIRED



NOTE 1: LIMITS WHERE ENDANGERED PLANTS ARE LOCATED WILL BE LIMITED TO 5' OUTSIDE THE SLOPE STAKES ON PARCELS 2,3,4 AND 5

REFERENCES:
 1. FOR -L-LINE PROFILE, SEE SHEET 5
 FOR PROP. GRADING DETAIL, SEE SHEET 2B
 2. FOR DITCH DETAILS, SEE SHEET 2B

REVISIONS

8/17/99
 21-MAR-2007 10:13
 F:\drainage\B3126\hyd\prfm.dgn
 660.00
 1037.00

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS						SURFACE WATER IMPACTS						
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)			
1	15+70 TO 16+28 -L- Lt	Tie-in of NSD									0.022		48		
2	16+42 to 16+58 -L-	Temp Causeway to Construct Pier #2									0.017		66		
3	16+79 Rt to 18+89 -L- Lt & 20+78 to 22+00 -L- Lt	Existing Trib to Gunpowder Crk								0.017		350			315
4	16+57 to 16+95 -L- Rt	Remove Existing Piers									0.007		31		
TOTALS:			0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.05	350	145	315		

Permit Drawing
Sheet 5 of 6

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
CALDWELL COUNTY
B-3126
3/07

SHEET

SUMMARY OF AFFECTED PROPERTY OWNERS

TRACT NO. PROPERTY OWNER ADDRESS SITE NO.

①	JOESPH C. AND MINNIE BOWMAN	3490 DEAL MILL RD. HUDSON, NC 28638	1
②	GLORIA SHOOK	3433 DEAL MILL RD. HUDSON, NC 28638	2
③	DONALD AND OPAL RIVERS	4538 DIAMOND ST. HUDSON, NC 28638	2
④	STACY LEE AND REBECCA WARD	3167 KIRBY WARD LANE HUDSON, NC 28638	2
⑤	LESLIE DALE DOTSON	PO BOX 628 HUDSON, NC 28638	2
⑥	J.D. WARD	4169 LOWER CEDAR VY. HUDSON, NC 28638	2

Permit Drawing
Sheet 6 of 6

NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

CALDWELL COUNTY
82732701(B-3126)
BRIDGE *90 OVER GUNPOWDER CREEK
ON SR 1718

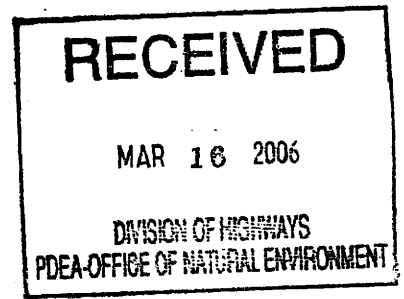
PROPERTY OWNERS

SCALE AS SHOWN

2004
3 AM
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March 13, 2006



Mr. Gregory J. Thorpe, Ph.D.
Environmental Management Director
Project Development and Environmental Analysis Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

Subject: EEP Mitigation Acceptance Letter:

B-3126, Bridge Number 90 over Gunpowder Creek on SR 1718, Caldwell County

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the compensatory stream mitigation for the subject project. Based on the information supplied by you in a letter dated February 22, 2006, the impacts are located in CU 03050101 of the Catawba River Basin in the Northern Mountains (NM) Eco-Region, and are as follows:

Stream: 35 feet

Mitigation for this project will be provided in accordance with the Memorandum of Agreement between the N. C. Department of Environment and Natural Resources, the N. C. Department of Transportation, and the U. S. Army Corps of Engineers. EEP will commit to implementing sufficient compensatory stream mitigation to offset the impacts associated with this project by the end of the MOA year in which this project is permitted, in accordance with Section X of the Tri-Party MOA. If the above referenced impacts amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from EEP.

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-715-1929.

Sincerely,

William D. Gilmore, P.E.
EEP Director

cc: Mr. John T. Thomas, Jr., USACE-Raleigh
Mr. John Hennessy, Division of Water Quality, Wetlands/401 Unit
File: B-3126

Restoring... Enhancing... Protecting Our State

North Carolina Ecosystem Enhancement Program, 1652 Mail Service Center, Raleigh, NC 27699-1652 / 919-715-0476 / www.nceep.net





☒ North Carolina Wildlife Resources Commission ☒

512 N. Salisbury Street, Raleigh, North Carolina 27604-1188, 919-733-3391
Charles R. Fullwood, Executive Director

MEMORANDUM

TO: Dennis Pipkin, Project Planning Engineer
Project Development & Environmental Analysis Branch, NCDOT

FROM: David Cox, Highway Project Coordinator
Habitat Conservation Program *David Cox*

DATE: March 19, 1999

SUBJECT: NCDOT Bridge Replacements in Caldwell, Davidson, Randolph, and Wake counties. TIP Nos. B-3125, B-3126, B-3314, B-3448, B-3503 and B-3527.

Biologists with the N. C. Wildlife Resources Commission (NCWRC) have reviewed the information provided and have the following preliminary comments on the subject project. Our comments are provided in accordance with provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

On bridge replacement projects of this scope our standard recommendations are as follows:

1. We generally prefer spanning structures. Spanning structures usually do not require work within the stream and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges allows for human and wildlife passage beneath the structure, does not block fish passage, and does not block navigation by canoeists and boaters.
2. Bridge deck drains should not discharge directly into the stream.
3. Live concrete should not be allowed to contact the water in or entering into the stream.
4. If possible, bridge supports (bents) should not be placed in the stream.

5. If temporary access roads or detours are constructed, they should be removed back to original ground elevations immediately upon the completion of the project. Disturbed areas should be seeded or mulched to stabilize the soil and native tree species should be planted with a spacing of not more than 10'x10'. If possible, when using temporary structures the area should be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact, allows the area to revegetate naturally and minimizes disturbed soil.
6. A clear bank (riprap free) area of at least 10 feet should remain on each side of the stream underneath the bridge.
7. In trout waters, the N.C. Wildlife Resources Commission reviews all U.S. Army Corps of Engineers nationwide and general '404' permits. We have the option of requesting additional measures to protect trout and trout habitat and we can recommend that the project require an individual '404' permit.
8. In streams that contain threatened or endangered species, NCDOT biologist Mr. Tim Savidge should be notified. Special measures to protect these sensitive species may be required. NCDOT should also contact the U.S. Fish and Wildlife Service for information on requirements of the Endangered Species Act as it relates to the project.
9. In streams that are used by anadromous fish, the NCDOT official policy entitled "Stream Crossing Guidelines for Anadromous Fish Passage (May 12, 1997)" should be followed.
10. In areas with significant fisheries for sunfish, seasonal exclusions may also be recommended.

If corrugated metal pipe arches or concrete box culverts are used:

1. The culvert must be designed to allow for fish passage. Generally, this means that the culvert or pipe invert is buried at least 1 foot below the natural stream bed. If multiple cells are required the second and/or third cells should be placed so that their bottoms are at stream bankfull stage (similar to Lyonsfield design). This will allow sufficient water depth in the culvert or pipe during normal flows to accommodate fish movements. If culverts are long, baffle systems are required to trap gravel and provide resting areas for fish and other aquatic organisms.
2. If multiple pipes or cells are used, at least one pipe or box should be designed to remain dry during normal flows to allow for wildlife passage.
3. Culverts or pipes should be situated so that no channel realignment or widening is required. Widening of the stream channel at the inlet or outlet of structures usually causes a decrease in water velocity causing sediment deposition that will require future maintenance.
4. Riprap should not be placed on the stream bed.

In most cases, we prefer the replacement of the existing structure at the same location with road closure. If road closure is not feasible, a temporary detour should be designed and located to avoid wetland impacts, minimize the need for clearing and to

avoid destabilizing stream banks. If the structure will be on a new alignment, the old structure should be removed and the approach fills removed from the 100-year floodplain. Approach fills should be removed down to the natural ground elevation. The area should be stabilized with grass and planted with native tree species. If the area that is reclaimed was previously wetlands, NCDOT should restore the area to wetlands. If successful, the site may be used as wetland mitigation for the subject project or other projects in the watershed.

Project specific comments:

1. B-3125 – Caldwell – Bridge No. 34 over Blue Creek. Our field biologists took a backpack electrofishing unit to sample this site. No trout found. The stream was heavily silted and no critical habitat was found near the bridge. Standard comments apply.
2. B-3126 – Caldwell County – Bridge No. 90 over the Gunpowder Creek. Our field biologists took a backpack electrofishing unit to sample this site. No trout found. This stream has a sand substrate with little other habitat. We recommend avoiding a nice riffle area approximately 15 meters downstream of the bridge. Species found at the site were creek chubs and shiners: and to our surprise a smallmouth and two largemouth bass from a single piece of woody debris. Standard comments apply.
3. B-3314 – Caldwell County – Bridge No. 163 over the Buffalo Creek. Our field biologists took a backpack electrofishing unit to sample this site. No trout found. This stream is wide and shallow with almost exclusive riffle-run habitat. There was no critical habitat in either direction of the bridge. We found hogsuckers, darters, black nose dace, central stonerollers, and creek chubs. Standard comments apply.
4. B-3448 – Davidson County – Bridge No. 166 over Kendall Creek. No specific comments.
5. B-3503 – Randolph County – Bridge No. 382 over Little River. The Little River is a very high quality stream with a cobble and large gravel substrate. The bridge has nice riffles both upstream and downstream, which provide excellent sunfish habitat. We request specifically that a spanning structure replace the existing bridge. We request that no in-water work occur from April 1 to June 30. There are freshwater mussels at this site listed as federal species of concern as well as several state-listed species. Due to the diversity of mussels and the quality of the habitat at this location, we request a field meeting to discuss conservation measures that should be employed to protect these resources.
6. B-3527 – Wake County – Bridge No. 437 over Lower Barton's Creek. No specific comments.

We request that NCDOT routinely minimize adverse impacts to fish and wildlife resources in the vicinity of bridge replacements. The NCDOT should install and maintain sedimentation control measures throughout the life of the project and prevent wet concrete from contacting water in or entering into these streams. Replacement of bridges with spanning structures of some type, as opposed to pipe or box culverts, is recommended in most cases. Spanning structures allow wildlife passage along streambanks, reducing habitat fragmentation and vehicle related mortality at highway crossings.

If you need further assistance or information on NCWRC concerns regarding bridge replacements, please contact me at (919) 528-9886. Thank you for the opportunity to review and comment on these projects.



☒ North Carolina Wildlife Resources Commission ☒

Charles R. Fullwood, Executive Director

May 23, 2000

Mr. Dennis Pipkin
Project Development Engineer
Bridge Replacement Unit
PO Box 25201
Raleigh, North Carolina

RE: Proposed NCDOT Project, TIP No. B-3126, Gunpowder Creek, Caldwell County

Dear Mr. Pipkin:

This correspondence is in response to your letter of May 22, 2000 regarding the replacement of Bridge No. 90 over Gunpowder Creek on SR1718. The North Carolina Wildlife Resources Commission (NCWRC) is authorized to comment and make recommendations which relate to the impacts of this project on fish and wildlife through the Federal License of Water Resource Project Act (Federal Power Act-16 U.S.C. 791a et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

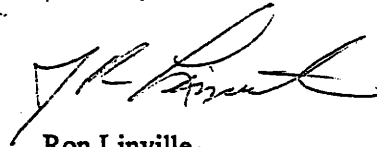
Based on our review and the previous comments provided by David Cox, we have no objection to the project providing that conditions specified by Mr. Cox earlier are followed. Additionally, the following conditions should also be met:

1. If concrete will be used, work must be accomplished so that wet concrete does not contact stream water. This will lessen the chance of altering the stream's water chemistry and causing a fish kill.
2. Heavy equipment should be operated from the bank rather than in the stream channel in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into the stream.
3. Temporary or permanent herbaceous vegetation should be planted on all bare soil within 15 days of ground disturbing activities to provide long-term erosion control.
4. Stringent erosion control measures should be installed where soil is disturbed and maintained until project completion.
5. The dimension, pattern, and profile of the stream and floodplain (above and below) the bridge should not be modified by stream widening or by reducing the depth of the stream.

6. The NC Natural Heritage Program should concur that no endangered or threatened species are likely to be impacted by demolition and construction activities.

All activities must follow 404 Permit and 401 Certification requirements in addition to any other special conditions specified by the NC Department of Environment and Natural Resources. If you have any questions regarding these comments, please contact me at 336/769-9453.

Sincerely



Ron Linville
Regional Coordinator
Habitat Conservation Program

cc: Steve Lund, USACOE