



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

October 18, 2005

NC Department of Environment and Natural Resources  
Division of Water Quality  
1650 Mail Service Center  
Raleigh, NC 27699-1650

Attn: Ms. Christina Breen  
NCDOT Coordinator, Division 5

Dear Madam:

Subject: **Application for Permit Modification to the Neuse Buffer Certification**  
for the East Wake Expressway, Wake County: TIP No. R-2641;  
Federal Project No. NHF-DPI-0199(004); State Project No. 8.1402202  
DWQ Project No. 011689

As you are already aware, the North Carolina Department of Transportation (NCDOT) is constructing a new controlled-access, four lane divided highway known as the East Wake Expressway (R-2641). The project will connect the Northern Wake Expressway (R-2000F and 2000G), currently under construction, to the recently completed Knightdale Bypass (R-2547BB). The project is a design-build job scheduled to be completed in August 2006, concurrently with the R-2000G project. The purpose of this letter is for a change to the impact calculations within the Neuse Riparian Buffers. A permit modification to the Neuse Buffer Certification for this part of the project (R-2641) was issued on July 6, 2004.

The revised impact numbers do not compromise NCDOT's compliance with the existing permit conditions. The revision has been evaluated for compliance with the avoidance/minimization criteria and are in compliance with all previous issues, including the following:

- Protected Species
- Aquatic Life passage
- FEMA compliance
- Cultural Resources

**MAILING ADDRESS:**  
NC DEPARTMENT OF TRANSPORTATION  
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS  
1598 MAIL SERVICE CENTER  
RALEIGH NC 27699-1598

TELEPHONE: 919-715-1500  
FAX: 919-715-1501  
WEBSITE: [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

**LOCATION:**  
2728 CAPITAL BLVD.  
PARKER LINCOLN BUILDING, SUITE 168  
RALEIGH NC 27604

**Summary of Changes**

**Site 5: Station 202+30**

This site is the location of a pond that was drained for the construction of the project. An intermittent stream channel is present below the pond and the hydraulic design for the project included a pipe outlet at the upper end of this channel. This stormwater is captured in a dry detention basin prior to discharging in the stream channel at non-erosive velocities. The permit modification (dated July 6, 2004) for R-2641 showed the pond being drained and therefore impacts to the associated riparian buffers under the jurisdiction of the Neuse Buffer Rules. The riparian buffers were reestablished around the outlet of the pipe as shown on Sheet 8.

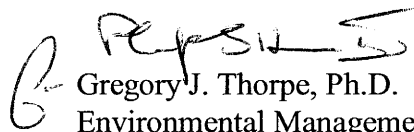
It has come to our attention that the impact associated with the pipe through the reestablished buffers was not calculated in the previous permit modification (dated July 6, 2004). The pipe has been installed in the same location as shown in the approved permit modification and plan set. This modification application is purely an adjustment in the impact calculations associated with the site due to the mechanized clearing of the buffer associated with the pipe installation, which were not shown on the permit modification (dated July 6, 2004) impact sheets. These additional impacts associated with this permit modification application consist of 926 square feet (0.021 acres) of Zone 1 and 86 square feet (0.002 acres) of Zone 2 as shown on the attached plan sheet. A request for the additional riparian buffer mitigation has been made to the North Carolina Ecosystem Enhancement Program and the request letter is attached.

**Regulatory Approvals**

The modification of the permit site on this project has been designed to comply with the Riparian Buffer Mitigation Program (15A NCAC 2B .0242) and the Neuse River Basin Riparian Buffer Rules (15A NCAC 2B .0233). Therefore, as part of the Modification request, we respectfully request that the NCDENR-DWQ issue an Authorization Certificate pursuant to 15A NCAC 2B .0233 for the proposed use. We are providing seven copies of this application to the NCDWQ for their review.

If you have any questions or need additional information, please call Ms. Rachelle Beaugard at (919) 715-1383.

Sincerely,



Gregory J. Thorpe, Ph.D.  
Environmental Management Director, PDEA

Cc:

w/attachment

- Mr. John Hennessy, NCDWQ (7 Copies)
- Dr. David Chang, P.E., Hydraulics
- Mr. Jon Nance, P.E., Division Engineer
- Mr. Chris Murray, DEO

w/o attachment

- Mr. Jay Bennett, P.E., Roadway Design
- Mr. Greg Perfetti, P.E., Structure Design
- Mr. Art McMillan, P.E., Highway Design
- Ms. Beth Harmon, EEP
- Mr. Todd Jones, NCDOT External Audit Branch
- Mr. Greg Kempf, HDR
- Mr. Drew Johnson, P.E., Barnhill



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October 3, 2005

Mr. William D. Gilmore, P.E.  
EEP Transition Manager  
Ecosystem Enhancement Program  
1652 Mail Service Center  
Raleigh, NC 27699-1652

Dear Sir:

**Subject: Neuse Buffer Mitigation Request:** East Wake Expressway, I-540 from US-64 to US-64 Bypass, Wake County. Division 5, TIP No. R-2641; Federal Project No. NHF-DPI-0199(004); State Project No. 8.1402202.

The purpose of this letter is to request that the North Carolina Ecosystem Enhancement Program (EEP) provide confirmation that you are willing to provide compensatory mitigation for the project in accordance with the Memorandum of Agreement (MOA) signed July 22, 2003 by the USACE, the NCDENR and the NCDOT.

We have avoided and minimized the impacts to stream buffer to the greatest extent possible as described in the original permit application. There are additional buffer impacts that were not originally accounted for in the original application. The mitigation for these additional impacts will be compensated by mitigation provided by the EEP program. An application for Modification to Section 401 permits will be submitted upon receipt of acceptance of this mitigation. A copy of the permit application, when submitted, can be found at <http://www.ncdot.org/planning/pe/naturalunit/Applications.html>.

**Neuse Riparian Buffer Mitigation**

The project is located in the Piedmont Physiographic Province in Wake County in the Neuse River Basin in Hydrological Cataloguing Unit 03040105.

Additional buffer impacts to Zone 1 are 926 sq ft and Zone 2 are 86 sq ft.

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**LOCATION:**  
2728 CAPITAL BLVD.  
PARKER LINCOLN BUILDING, SUITE 168  
RALEIGH NC 27604

In order to satisfy regulatory assurances that mitigation will be performed; the NCDWQ requires a formal letter from EEP indicating their willingness and ability to provide the mitigation work requested by NCDOT. The NCDOT requests such a letter of confirmation be addressed to Mr. John Hennessy of NCDWQ, with copies submitted to NCDOT.

Please respond to NCDOT in writing within 10 business days with an EEP acceptance letter for this NCDOT project.

If you have any questions or need additional information please call Rachelle Beauregard at 919-715-1383.

Sincerely,

*for Linda Fitzpatrick*  
Gregory J. Thorpe, Ph.D.  
Environmental Management Director, PDEA

cc:

Mr. John Hennessy, NCDWQ  
Ms. Chrisina Breen , NCDWQ  
Ms. Linda Fitzpatrick, NCDOT Natural Environment Unit  
Mr. Omar S. Sultan, NCDOT Project Management/Scheduling Unit  
Mr. Todd Jones, NCDOT External Audit Branch  
✓ Ms. Rachelle Beauregard, NCDOT Natural Environment Unit

Site Information TIP Number	Permit Version	Wetland Impacts (ac)		Surface Water Impacts (ac)			Channel Impacts (ft)			Buffer Impacts (sq ft)		
		Fill in Wetlands	Temp. Fill Excavation	Clear Wetlands	Fill in Natural SW	Fill in Pond	Temp in SW	Existing Channel	Relocated Channel	Enclosed Channel	Zone 1	Zone 2
R-2641	10/19/2001	0.00	0.00	0.00	0.00	0.62	0.00	0	0	0	23,142	18,729
	5/11/2004	0.00	0.00	0.00	0.00	0.62	0.00	0	0	0	23,142	18,729
	Change	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0
R-2641	10/19/2001	0.00	0.00	0.00	0.00	0.43	0.00	0	0	0	13,455	10,979
	5/11/2004	0.00	0.00	0.00	0.00	1.70	0.00	0	0	0	0	0
	Change	0.00	0.00	0.00	0.00	1.27	0.00	0	0	0	-13,455	-10,979
R-2641	10/19/2001	0.14	0.00	0.00	0.00	0.00	0.00	0	0	0	8,396	5,597
	5/11/2004	0.11	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0
	Change	-0.03	0.00	0.00	0.00	0.00	0.00	0	0	0	-8,396	-5,597
R-2641	10/19/2001	0.00	0.00	0.00	0.00	1.22	0.00	0	0	0	0	0
	5/11/2004	0.00	0.00	0.00	0.00	1.22	0.00	0	0	0	41,440	29,815
	Revised 10/19/05	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	926	86
	Change	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	42,366	29,901
R-2641	10/19/2001	0.15	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0
	5/11/2004	0.13	0.00	0.00	0.00	0.00	0.00	102	0	0	6,706	5,339
	Change	-0.03	0.00	0.00	0.00	0.00	0.00	102	0	0	6,706	5,339
R-2641	10/19/2001	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0
	5/11/2004	0.01*	0.034	0.00	0.00	0.00	0.00	0	0	0	0	0
	Change	0.010	0.034	0.00	0.00	0.00	0.00	0	0	0	0	0
R-2641	10/19/2001	0.56	0.00	0.00	0.00	0.00	0.00	0	0	0	54,895	32,506
	5/11/2004	0.32	0.00	0.02	0.00	0.00	0.00	0	0	0	0	0
	Change	-0.24	0.00	0.02	0.00	0.00	0.00	0	0	0	-54,895	-32,506
R-2547BB	10/19/2001											
	Current											
	Change											
R-2547BB	10/19/2001	1.40	0.00	0.00	0.00	0.04	0.00	285	0	276	35,197	23,357
	5/11/2004	1.27	0.00	0.05	0.08	0.06	0.00	449	0	420	35,197	22,388
	Change	-0.13	0.00	0.05	-0.04	0.02	0.00	164	0	144	0	-969
R-2547BB	10/19/2001	1.038	0.00	0.00	0.099	0.00	0.00	0	0	0	0	0
	5/11/2004	1.24	0.00	0.14	0.02	0.00	0.00	0	0	0	0	0
	Change	0.20	0.00	0.14	-0.07	0.00	0.00	0	0	0	0	0
Total Impacts	10/19/2001	3.28	0.00	0.00	0.31	0.04	2.27	285	0	276	135,084	91,168
	5/11/2004	3.06	0.00	0.21	0.16	0.07	3.54	552	0	420	106,485	76,271
	Revised 10/19/05	-0.22	0.03	0.21	-0.15	0.03	1.27	266	0.00	144	-27,673	-14,811
	Change	-0.16	wetlands			1.27	ponds	266	stream*		-42,484	buffers**
R-2547BB	10/19/2001	2.43	0.00	0.00	0.22	0.04	0.00	285	0	276	35,197	23,357
	5/11/2004	2.51	0.00	0.19	0.10	0.06	0.00	449	0	420	35,197	22,388
	Change	0.07	0.00	0.19	-0.12	0.02	0.00	164	0	144	0	-969
R-2641	10/19/2001	0.85	0.00	0.00	0.09	0.00	2.27	0	0	0	99,887	67,811
	5/11/2004	0.66	0.00	0.02	0.05	0.01	3.54	102	0	0	71,288	53,883
	Change	-0.29	0.00	0.02	-0.03	0.01	1.27	102	0	0	-27,673	-13,842

\*Site is bridged - impacts not included in calculations  
 \*\*Stream impact totals include streams requiring mitigation and those that do not require mitigation  
 \*\*\*Buffer impact totals include all sites (including those under 0.33 ac that do not require mitigation)  
**Bold indicates changes from 10/19/05 revision (additional 926 sq ft of Zone 1 and 86 sq ft of Zone 2 at Site 5)**

