STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JAMES B. HUNT JR.
GOVERNOR

DIVISION OF HIGHWAYS
P.O. BOX 25201, RALEIGH, N.C. 27611-5201

GARLAND B. GARRETT JR.
SECRETARY

April 12, 1996

Mr. John Dorney
Water Quality Section
Division of Environmental Management
Department of Environment, Health,
and Natural Resources
P.O. Box 29535
Raleigh, North Carolina 27626-0535

Dear Mr. Dorney:

Subject: Carteret County, Extension of Bridges Street between Arendell Street and NC 24 in Morehead City; State Project No. 9.8022831, TIP No. U-2226

Thank you for sending us copies of your January 26, 1996 memorandum to the Division of Coastal Management. We are taking this opportunity to address the issues presented in the memorandum, and to provide you with a history of the project with emphasis on project mitigation since 1990. It is our understanding that the DEM's two issues as outlined in the memorandum were (1) possible wetland impacts from the relocation of the railroad, and (2) concerns about the mitigation plan.

1. Railroad Relocation:

As you know, a site visit verified that no jurisdictional wetlands are located on the proposed railroad relocation site. Furthermore, it was pointed out that the proposed railroad relocation site will be completely within the existing railroad right-of-way. DEM noted that wetlands abut the railroad relocation project boundaries, and advised that the relocation project should ensure that these adjacent wetlands are not affected. The NCDOT agrees that care should be taken to protect the wetlands and will inform the Norfolk Southern Railroad Company of DEM's concerns so that they can include the concerns in their contract documents.

2. Mitigation Plan:

The Jan. 29,1996 memorandum states "The DEM believes that impacts to bottomland hardwood forest (BLH) wetland should be compensated by the same wetland type." We support the concept of mitigation of affected wetland types with compensation by similar wetland types. In addition, we support a wetland mitigation policy which embraces the concept of "no net loss of wetlands." The purpose of this policy is to restore and maintain the chemical, biological, and physical integrity of the Waters of the United States. Our mitigation policy includes (a) avoiding impacts; (b) minimizing impacts; and (c) compensating for impacts.

(a) Extensive wetland impacts were avoided by locating the proposed roadway extension in an urban corridor already occupied by a railroad and US 70.

(b) Within the corridor, impacts were minimized by using the following design criteria:

(i) Construction using 2:1 fill slopes instead of the normal 4:1 fill slope.

(ii) No lateral ditches in wetlands thus preserving the hydrological function of the contiguous areas.

(iii) Use of silt fences during construction to minimize temporary impacts to water quality.

(iv) Strict enforcement of sedimentation and erosion control BMP's for the protection of surface waters and wetlands.

(c) After the wetland impacts had been avoided to the extent practicable, and minimized by specialized design parameters, we implemented compensatory mitigation. Early during the planning process in 1991, we evaluated the use of borrow pits to create wetlands. However, the pits were rejected because there were no hydrological connections, thus wetland hydrology could not be maintained. On-site expansion of the existing impacted wetlands was considered, but rejected because the effect would be to only change the type of jurisdictional wetland, not increase the total area of jurisdictional wetland. In addition, owing to the location of the project within an urbanized corridor, the expense of land was prohibitive.

Bridging the wetland sites was considered and an analysis showed this option to be prohibitively expensive. As noted in the FONSI dated 5/6/94, bridging the coastal marsh and the bottomland hardwood wetlands would cost an estimated $1,187,000, and would save approximately 1.2 acres of brackish marsh and 0.2 acres of bottomland hardwood, with the unit cost of $850,000 per acre of wetland. Since 1990, we have been assiduously looking for off-site mitigation options. The 1991 State Environmental Assessment identified mitigation as being accomplished by debiting credits from the NCDOT

Company Swamp Mitigation Bank (CSMB). During 1993, CAMA proposed revegetating the sand shoal islands in Bogue Sound with Spartina alterniflora. In May 1994, the FONSI was published identifying the CSMB as a last resort for mitigation of the bottomland hardwood impacts, if other sites were not found.

During 1993 and 1994, many sites were evaluated to compensate for the impacts to both the coastal marsh and bottomland hardwood wetlands. A list and evaluation of the sites is included in the attached Time Line. Most of the sites were rejected due to hazardous contamination, size, unavailability, and cost. We appreciate your sending us the information about the Hull Swamp site. We have since learned that the site is located in an area zoned B-1, Business, by Carteret County and is being used for business in conformance with the zoning. In 1995, we did find a large site in Morehead City on Calico Creek, known as the Willis Properties, containing degraded Bottomland Hardwood potential as well as coastal brackish marsh. We purchased an option on the properties, and proceeded with a Fatal Flaw Feasibility study. A Phase II hazardous contamination evaluation was completed and resulted in the site being rejected due to heavy metal and VOC contamination.

The only site that remained potentially successful was that proposed by CAMA. The Mitigation Plan filed with the CAMA permit application describes the site in detail. If you need more maps or another copy of the plan, please let us know.

We also offer the following summary of responses to items B through F in your memorandum to the NCDCM. Please note that a more detailed discussion of the mitigation monitoring plan will be available shortly, and is now in final review by the NCDCM.

B) "How will the site support vegetation when the site is currently devoid of plants. Has the wave/tidal energy been reduced? If so by what means?" The islands are currently being built up through natural accretion. Therefore, the natural wave/tidal energy is being reduced. Further energy reduction will be implemented during construction of the mitigation site by using log mats and other devices.

C) "Will the vegetation be planted with a type of mat....parallel to shore on contour" Yes. Details will be shown in the As-Built Drawings which will be circulated to the resource agencies.

D) "The method for calculating the stability...not average all elevation readings" The NCDOT acknowledges your concern. The statistical method for calculating the stability of the site should not affect the project.

E) "The success criterion is...that become established naturally." At least 75 percent of the frequency and average percent cover will be used and will include all species established within the sampled quadrats.

F) "Since monitoring details are sketchy... sample plot." A detailed monitoring plan has been drafted in coordination with CAMA and is being sent to you as a separate document.

Thank you for the opportunity to provide input to the Section 401 process for this project. If you have any questions or need additional information, please call Ms. Alice N. Gordon at 733-7844, Ext. 307.

Sincerely,

H. Franklin Vick

H. Franklin Vick, P.E., Manager
Planning and Environmental Branch

HFV/tp

Enclosures

cc: John Parker, DCM, Raleigh
Jeff Richter, COE, Wilmington
David Cox, WCR, Raleigh

PROJECT TIMELINE

Extension of Bridges Street
U-2226
Carteret County

May 1990	USCOE and USFWS comments on Draft SEA. No mention of specific mitigation. NMFS comments specifically request mitigation for Bottomland Hardwoods (BLH) and brackish marsh or they will ask Corps of Engineers to not issue 404 permit. Comments received from DENHR (including DCM, DLR) and the NCWCR; only the WRC mentions need for mitigation, but no specific types mentioned.
Sep. 1991	State Environmental Assessment approved. The SEA states that there will be 1.5 acres impact to BLH , 1.0 acres of brackish marsh and 0.1 acre of isolated pocket wetlands. NCDOT agrees to mitigate impacts by debiting credits from the Company Swamp Mitigation site in accordance with the 1985 MOU among NCDOT and other agencies (NCNC, USFWS, NCWRC).
Jun. 24,1993	The NCDOT and the DCM (Pipkin and Mercer) discussed mitigation options. DCM said major issue is the removal of the cordgrass marsh and that NCDOT should look to replacing the marsh estuarine system.
Jul. 6, 1993	DCM (Mercer) proposed mitigation for the project consisting of planting Spartina alternifolia on sand shoals in Bogue Sound just West of Atlantic Beach bridge.
Aug. 19,1993	NCDOT presented construction options of culverts vs. bridging to span the wetlands project at Agency Review Meeting.
Aug. 27,1993	Site visit with DCM resulted in elimination of mitigation option that would involve expansion of on-site marsh wetlands. Option eliminated for two reasons: (1) area a congested, urban land-use; (2) marsh was surrounded by bottomland hardwood wetlands, so any attempt to expand marsh would result in the unacceptable destruction of bottomland hardwood wetlands.
1993 - 1995	Extensive search throughout Carteret County for sites to mitigate impacts identified in SEA and FONSI (1.5 acres BLH, 1 acre marsh). Each site was rejected for a variety of reasons including size (too big), cost (too expensive), inconsistent land use (in subdivision), unacceptable hydrological connections, and/or the site was already a jurisdictional wetland.

Feb. 17,1994 Project discussed at Agency Review Meeting. All agencies in attendance at meeting including DEM (Dorney and Galamb). Potential mitigation options discussed with review agencies. NCDOT proposed planting the sandbar in Bogue Sound. At meeting, it was stated that the planting of the sandbar was the DCM preferred mitigation option. Other options presented were:

* enhancement of degraded inland marsh;
* debit the Company Swamp;
* in-kind restoration of drained PC farmland;
* out-of-kind restoration of drained PC farmland.

Feb. 23,1994 Evaluated site at Crab Pointe (Haystacks property) which contains potential for BLH and marsh mitigation. Condominiums located on contiguous property. Owner not willing to sell.

Apr. 1994 Evaluated site in Cedar Point, Carteret County for potential marsh mitigation site; site rejected as too far from project site.
Evaluated second site in Carteret County for potential bottomland hardwood mitigation potential (known as the Broad Creek Site). It was rejected as too large (112 acres) and expensive (condominiums built on part of site).

Apr. 1994 Met with DCM for on-site evaluation of sand shoal site (Bogue Sound sand bar site).

May 1994 FONSI approved. FONSI states that NCDOT will mitigate by restoration/enhancement of a similar amount of wetland in the project vicinity.

NCDOT response to NMFS, DEM, DCM, DMF and WCR states that on-site mitigation for marsh is not feasible since affected marsh is surrounded by BLH. The FONSI further states that both BLH and brackish marsh sites are being evaluated and will likely be found. The FONSI then states that if no sites are found , we will debit the Company Swamp.

Jul. 6, 1994 Comments on FONSI submitted by NCWCR. WCR concurs with FONSI except for the proposed debiting of the Company Swamp instead of using on-site mitigation.

Jul. 6, 1994 Comments on FONSI submitted by NCDEM in which agency requests that mitigation plan be submitted to DEM for review and comment. Also requested that wetland mitigation be complete before wetlands are impacted by construction.

Jul. 6, 1994 Comments on FONSI submitted by DCM, including comments from Morehead City (K. Vinson).

Feb. 29, 1996 NCDOT responds to DCM request for information about wetlands at proposed railroad relocation site.

Mar 18, 1996 DCM, DEM, WCR visit railroad relocation site. Agencies decide no jurisdictional wetlands present.

Mar 20, 1996 DCM states that they will issue CAMA permit soon.

Mar. 21,1996 DEM send letter to NCDOT stating they will not issue 401 until mitigation issues are resolved.

Mar. 28, 1996 At Agency Review Meeting, DEM states that they have met with DCM, and will issue the 401 if NCDOT will submit a plan for bottomland hardwood mitigation within a year.

Apr. 2, 1996 Carteret County said that the Hull Swamp site recommended by DEM is already filled and being used for business enterprise. Furthermore, site is zoned B-1 (Business).