

US Army Corps  
Of Engineers  
Wilmington District

# PUBLIC NOTICE

Issue Date: June 28, 2007  
Comment Deadline: July 30, 2007  
Corps Action ID #: 200211081

All interested parties are hereby advised that the Wilmington District, Corps of Engineers (Corps) has received an application from the North Carolina Department of Transportation for work within jurisdictional waters of the United States. Specific plans and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at [www.saw.usace.army.mil/wetlands](http://www.saw.usace.army.mil/wetlands)

***Applicant:***

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

**Authority**

The Corps will evaluate this application and decide whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of Section 404 of the Clean Water Act and Section 10 of the River and Harbor Act of 1899. The Corps is only soliciting comment at this time pertaining to the selection of the Least Environmentally Damaging Practicable Alternative (LEDPA) pursuant to applicable procedures of Section 404 of the Clean Water Act and Section 10 of the River and Harbor Act of 1899.

**Location**

The proposed TIP project R-2583 involves the widening of US Highway 158 from the Murfreesboro Bypass to US Highway 13 west of Winton in Hertford County. The proposed US 158 widening is approximately 8.3 miles in length and will be a four-lane divided facility consisting of four 12-foot travel lanes, paved shoulders, and a 46-foot wide grassy median. Three main construction alternatives are proposed and each construction alternative also includes an additional service road option in the Mapleton Community. The project would cross Potecasi Creek and Mill Branch and other perennial and intermittent tributaries to Potecasi Creek and the Meherrin River. The proposed project is located in the Chowan River Basin, Hydrologic Units 03010204. The

western starting point is located at approximately Latitude 36.4268545N, Longitude 77.0726684W. The eastern ending point of the project is located at Latitude 36.3949143N, Longitude 76.9443693 W.

### **Existing Site Conditions**

The project area is in Hertford County, in northeastern North Carolina. Land use in the project area consists primarily of agriculture, forestry, and residential uses. Residential development is scattered and located linearly along US 158. The unincorporated area of Mapleton is located approximately two miles east of the project's western terminus. Most of the area is zoned for residential and agricultural purposes but because the project is expected to attract further economic development, changes in land use may occur.

The project lies in the Inner Coastal Plain physiographic region of North Carolina. Flat terrain, slow moving streams, and swamplands characterize the landscape.

The primary water bodies in the project area are Potecasi Creek and Mill Branch. Several unnamed tributaries to Potacasi Creek, Mill Branch and the Meherrin River are located within the project area.

Based on the US Natural Resource Conservation Service (NRCS) survey of Hertford County, the soils found are generally sands and loams. The study area is mapped primarily as Norfolk loam fine sand, Craven fine sandy loam, and Tarboro sand. Other small pockets of Bibb soils, Bonneau loamy sand, Carolina fine sandy loam, Conetoe loamy sand, Dorovan soils, Exum very fine sandy loam, Goldsboro fine sandy loam, leaf loam, Lenoir loam, Lynchburg fine sandy loam, Rains fine sandy loam, Udorthents, and Winton soils are present. Of these soil types, the NRCS lists four (Bibb, Dorovan, Leaf, and Rains) as hydric in the county. Descriptions of these soil series associations can be found in the Hertford County Soil Survey or page 54-55 of the State Environmental Assessment for TIP Project # R-2583.

### **Applicant's Stated Purpose**

The purpose of the proposed project is to provide system linkage, support economic development, and ensure future safety along the project limits on US 158 in Hertford County. The purpose and need for this project was agreed upon by federal, state, and local representatives in January 2003.

### **Background**

A State Environmental Assessment (EA) for the project was approved in April 2006. A citizen's informational workshop was held in May 2003 in order to present the proposed project to the public and to generate comments on possible alternatives. Based on the

comments received at the workshop and from local, state, and federal agencies, three preliminary design alternatives were created. These three alternatives were approved to carry forward in the EA by the merger team in May 2005.

## **Project Description**

The project is identified as TIP # R-2583. The following description of work is taken from data provided by the applicant. The three proposed main construction build alternatives and the no-action/build alternative and mass transit alternative are described below. A map showing the location of the alternatives for this project are included with this public notice. Additional findings for the project including NCDOT's State Environmental Assessment may be reviewed at the U.S. Army Corps of Engineers Regulatory Field Office at 107 Union Drive, Suite 202, Washington, North Carolina 27889

## **Project Alternatives**

a. No-Action/Build Alternative: The No-Build Alternative would forego any improvements to US 158 with the exception of routine maintenance. No new segment would be constructed, and no roadway or intersection improvements would be performed. The No-Build Alternative would avoid any adverse environmental impacts, in that no wetlands, streams, historic properties, or other cultural and natural resources would be directly impacted. However, this alternative would not meet the stated purpose of the project, as it would not support economic development or ensure future safety along this section of US 158. The No-Build Alternative was eliminated from consideration because it does not meet the transportation needs of the region or the objectives of the project. However, the No-Build Alternative does provide a basis for comparing the adverse impacts and benefits of the design options.

b. Transportation System Management Alternatives: Transportation Systems Management (TSM) improvements involve increasing the available capacity of the facility within the existing right-of-way with minimum capital expenditures and without reconstructing the facility. Items such as the addition of turn lanes, striping, signing, signalization, and minor realignments are examples of TSM physical improvements. Traffic law enforcement, speed restrictions, access control, and signal timing changes are examples of TSM operational improvements. These types of improvements were considered, and some elements, such as access control measures, will be incorporated into the recommendations, but TSM improvements alone would not meet the stated purpose of the project. Therefore, the TSM Alternative was not considered a reasonable and feasible alternative and was eliminated from further consideration.

c. Mass Transit Alternatives: There is no existing no-cost mass transit in Hertford County due to lack of demand, low-density development, and low population density. The only form of mass transit in the area is the Choanoke Public Transportation

Authority (CPTA), which provides subscription and demand-responsive transportation in Northampton, Halifax, Bertie, and Hertford Counties; the CPTA is based in Northampton County. The study area is primarily rural, with the town of Murfreesboro located west of the project limits. Additionally, US 158 carries a large proportion of through traffic with relatively high truck percentages, which is not conducive to local mass transit. Based on these factors, the Mass Transit Alternative was eliminated from consideration, as it would not effectively address the purpose and need for the proposed project.

### **Detailed Study Alternatives (Construction)**

Three main construction alternatives are currently proposed (**refer to Figure 1**). One alternative (Alternative A) proposes to widen the roadway entirely on existing location, while two alternatives (Alternatives B and C) propose to widen the majority of US 158 on existing location with a short new location bypass in the vicinity of Mt. Tabor Baptist Church. For each of the three construction alternatives, an additional service road option is under consideration. The Mapleton Option, (referred to as A2, B2, and C2) proposes to shift US 158 farther south in Mapleton than what is proposed in Alternatives A, B, and C and providing access to residences on the north side by utilizing existing roadway as a service road. This Mapleton option is designed to reduce the number of residential relocations in the vicinity of Mapleton Road (SR 1304).

Partial access control will be maintained for any of the six construction alternatives. Existing driveways exiting onto US 158 will be maintained; however, no new driveways will be allowed on any new location section (Alternatives B, B2, C and C2). Existing stop-sign controlled intersections will be modified to include directional crossovers and offset left-turns. The 4-foot outside paved shoulder will accommodate any bicycle traffic. The typical section design is consistent with the Strategic Highway Corridor vision for an Expressway design within the project limits. While the Strategic Highway Corridor vision includes an interchange at the US 158/ US 13 intersection, an interchange is not included within the scope of this project. Any interchange at this location will be studied as part of TIP Project **R-2507A**.

#### **a. Alternative A: Widen on Existing**

This alternative would widen the roadway entirely along its existing location. New lanes would be added south of the existing roadway between the Murfreesboro Bypass to Cool Spring Road; east of Cool Spring Road, the new lanes would be north of the existing roadway. The alternative includes the construction of a new, two-lane bridge over Potecasi Creek north of the existing structure. In addition, the existing bridge would also be replaced.

b. Alternative A2: Widen on Existing including Mapleton Service Road

This alternative is the same as Alternative A except for the addition of the service road option that would shift US 158 further south in Mapleton and utilize the existing roadway as a service road.

c. Alternative B: Widen on Existing with Northern Bypass

This alternative would widen US 158 on existing location as described in Alternative A, with the exception of a new location section north of the Mt. Tabor Church Road (SR 1176) intersection. The new location section would serve to straighten the existing curve as well as to avoid impacts to the nearby Mt. Tabor Baptist Church property. This alternative would also include a new crossing of Potecasi Creek in the form of a two-lane bridge to be located north of the existing crossing. The existing Potecasi Creek Bridge would also be replaced.

d. Alternative B2: Widen on Existing with Northern Bypass and Mapleton Service Road

This alternative is the same as Alternative B except for the addition of the service road option that would shift US 158 further south in Mapleton and utilize the existing roadway as a service road.

e. Alternative C: Widen on Existing with Southern Bypass

This alternative would widen US 158 mostly on existing location as described in Alternative A, with the exception of a new location section south of Mt. Tabor Church Road (SR 1176). The new location section would both straighten the existing curve as well as avoid impacts to the historic church property. This alternative would include the construction of two new two-lane bridges over Potecasi Creek, both to be located south of the existing crossing. If this alternative is chosen, the existing Potecasi Creek Bridge would be removed as potential wetland mitigation.

f. Alternative C2: Widen on Existing with Southern Bypass and Mapleton Service Road

This alternative is the same as Alternative C except for the addition of the service road option that would shift US 158 further south in Mapleton and utilize the existing roadway as a service road.

### **Impacts to Waters of the United States**

Impacts to water resources will be unavoidable due to the nature of the project study area. The jurisdictional impacts of each alternative based on preliminary design are provided in Table 1 & 2 below. In consultation with other agencies, NCDOT has determined that compensatory mitigation will likely be required for the potential impacts associated with

this project. Wetland restoration or enhancement potential will be evaluated on site and The Ecosystem Enhancement Program (EEP) also could serve as a potential in-lieu-fee source for compensatory mitigation. Appropriate compensatory mitigation for wetland and stream impacts from the Preferred Alternative would be determined in consultation with the appropriate Federal and State environmental resource and regulatory agencies.

**Table 1: Stream Impacts (linear feet)**

<b>Stream</b>	<b>Alternative A</b>	<b>Alternative A2</b>	<b>Alternative B</b>	<b>Alternative B2</b>	<b>Alternative C</b>	<b>Alternative C2</b>
UT to Meherrin River (SS)	64	64	64	64	64	64
UT to Potecasi Creek (SD)	119.97	181.69	119.97	181.69	119.97	181.69
UT to Potecasi Creek (SQ)	129.20	129.20	134.75	134.75	108.81	108.81
UT to Potecasi Creek (SC)	166.43	166.43	NA	NA	124.36	124.36
UT to Potecasi Creek (SJ)	76.92	76.92	256.71	256.71	46.17	46.17
UT to Potecasi Creek (SL)	NA	NA	255.18	255.18	NA	NA
UT to Potecasi Creek (SN)	NA	NA	15.29	15.29	NA	NA
UT to Potecasi Creek (SF)	33.94	33.94	NA	NA	NA	NA
Potecasi Creek (SB)	247.12	247.12	247.12	247.12	329.50	329.50
Mill Branch (SA)	79.56	79.56	79.56	79.56	79.56	79.56
UT to Potecasi Creek (SCC)	NA	NA	NA	NA	719.16	719.16
<b>Total Stream Impacts</b>	<b>917.14</b>	<b>978.86</b>	<b>1172.58</b>	<b>1234.30</b>	<b>1591.53</b>	<b>1653.25</b>

Table 2: Wetland Impacts

Site	Wetland ID	Wetland Type	Alternatives					
			A	A2	B	B2	C	C2
1	WTT	Riparian Forest	0.097	0.097	0.093	0.093	0.096	0.096
3	WRR	Headwater Ditch	0.004	0.004	0.005	0.005	0.004	0.004
6	WPP	Swamp Forest	0.411	1.325	0.391	1.325	0.414	1.325
7	WNN	Headwater Ditch	0.010	0.016	0.013	0.016	0.008	0.016
8	WMM	Headwater Ditch	0.015	0.023	0.019	0.023	0.014	0.023
9	WLL	Riparian Forest	0.370	0.481	0.388	0.481	0.970	0.481
10	WLL	Riparian Forest	0.082	0.131	0.018	0.131	0.006	0.131
12	WHH/WGG	Headwater Forest	0.094	0.094	0.780	0.780	0.069	0.069
13	WFF	Headwater Forest			0.004	0.004		
14	WEE	Riparian Forest			0.150	0.150		
15	WY	Headwater Forest	0.021	0.021	0.022	0.022		
16	WY	Headwater Forest	0.004	0.004				
17	WT	Bottomland Hardwood	0.048	0.048	0.048	0.048		
18	WT	Bottomland Hardwood	0.016	0.016	0.019	0.019		
20	WT	Bottomland Hardwood	0.173	0.173	0.184	0.184		
21	WS	Bottomland Hardwood	0.052	0.052	0.057	0.057		
23	WX	Headwater Forest					0.051	0.051
27	WK	Bottomland Hardwood	0.029	0.029	0.027	0.027	0.029	0.029
30	WG	Scrub-Shrub	0.030	0.030	0.028	0.028	0.030	0.030
31	WE	Head Water Ditch	0.007	0.007	0.007	0.007	0.007	0.007
33	WD	Swamp Forest	1.177	1.177	1.219	1.219	1.181	1.181
34	WD	Swamp Forest	0.059	0.059	0.048	0.048	0.086	0.086
35	WC	Headwater Forest	0.025	0.025	0.025	0.025	0.027	0.027
36	WB	Headwater Forest	0.010	0.010	0.012	0.012	0.010	0.010
37	WA	Pine Savanna	0.089	0.089	0.083	0.083	0.098	0.098
38	WA	Pine Savanna	0.023	0.023	0.023	0.023	0.023	0.023
39	WJJ	Swamp Forest	0.054	0.054			0.009	0.009
40	WCC	Swamp Forest					0.625	0.625
41	WV300	Swamp Forest					1.821	1.821
	<b>Total (Ac.)</b>		<b>2.900</b>	<b>3.988</b>	<b>3.663</b>	<b>4.810</b>	<b>5.578</b>	<b>6.142</b>

**Schedule and Costs**

Preliminary cost estimates for the Detailed Study Alternatives are presented in **Table 3** below. Alternatives A2, B2 and C2 include the Mapleton Service Road option. The

costs include right-of-way and construction costs, but do not account for any wetland or stream mitigation costs. The project is included in the approved 2007-2013 State Transportation Improvement Program (STIP) (TIP Project No. R-2583) with right-of-way acquisition scheduled to begin in state fiscal year (SFY) 2010 and construction scheduled to begin in SFY 2012. The total estimated cost included in the STIP is \$35,700,000.

**Table 3: Preliminary Cost Estimates**

<b>Alternative</b>	<b>Right-of-Way</b>	<b>Construction</b>	<b>Total Cost</b>
<b>A</b>	\$8,710,500	\$27,900,000	\$36,610,500
<b>A2*</b>	\$6,948,000	\$31,700,000	\$38,648,000
<b>B</b>	\$8,548,000	\$28,900,000	\$37,448,000
<b>B2*</b>	\$6,785,500	\$32,700,000	\$39,485,500
<b>C</b>	\$8,397,500	\$30,100,000	\$38,497,500
<b>C2*</b>	\$6,635,000	\$33,900,000	\$40,535,000

\*Mapleton Service Road Option

### **Other Required Authorizations**

This notice and all applicable application materials are being forwarded to the appropriate State agencies for review. The Corps will generally not make a final permit decision until the North Carolina Division of Water Quality (NCDWQ) issues, denies, or waives State certification required by Section 401 of the Clean Water Act (PL 92-500). This application for a Section 401 certification will be submitted to the NCDWQ after the LEDPA has been chosen and the final design plans are available. Additional information regarding the Clean Water Act certification process may be obtained from the NCDWQ Central Office, Transportation Permitting Unit, 2321 Crabtree Boulevard, Raleigh, North Carolina 27604-2260, Attn: Mr. John Hennessy.

The applicant has not provided to the Corps, a certification statement that his/her proposed activity complies with and will be conducted in a manner that is consistent with the approved North Carolina Coastal Zone Management Program. Pursuant to 33 CFR 325.2(b)(2), the Corps can not issue a permit for the proposed work until the applicant submits such a certification to the Corps and the North Carolina Division of Coastal Management (NCDCM), and the NCDCM notifies the Corps that it concurs with the applicant's consistency certification.

### **Essential Fish Habitat**

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The Corps' initial determination is that the proposed project will not adversely impact EFH or associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service.

## Cultural Resources

The Corps has consulted the latest published version of the National Register of Historic Places and has determined that registered properties, or properties listed as being eligible for inclusion therein are located within the project area and/or will be affected by the proposed work. A detailed survey was conducted for Alternatives A and B. Thirty-seven properties that are at least fifty years old were identified during a field survey. Of these, only three were determined to be eligible for the NRHP: Britt Store, Mt. Tabor Baptist Church and cemeteries, and the William H. Kiff House. The North Carolina State Historic Preservation Office (HPO) confirmed the eligibility of these properties in correspondence dated April 25, 2003 and July 10, 2003.

The addition of Alternative C resulted in a larger Area of Potential Effects (APE). NCDOT conducted additional surveys to identify historic architectural resources located within the expanded APE. No properties eligible for or listed on the NRHP were identified within the new location portion of Alternative C, except for the previously identified Mt. Tabor Baptist Church and cemeteries; the HPO concurred with this determination in a concurrence form dated August 31, 2005.

For Alternatives A, B, and C, the new lanes will be placed south of existing US 158 in the Mapleton vicinity in order to avoid impacts to both the Britt Store as well as homes on the north side of the roadway. In January 2006, HPO, FHWA, and NCDOT concurred that each of the three alternatives would have **No Effect** on the Britt Store property.

In January 2006, HPO, FHWA, and NCDOT agreed that Alternatives B and C would have **No Effect** on Mt. Tabor Church. It was also agreed that Alternative A would have an **Adverse Effect** on Mt. Tabor Church. Further coordination with the U.S. Army Corps of Engineers and HPO may be required to determine if the Mt. Tabor Baptist Church is considered to be within the project's federal permit area, thereby making Section 106 requirements applicable.

An intensive archaeological survey was conducted within the study corridor for Alternatives A and B. A total of 21 historic resources was identified and evaluated (15 archaeological sites, 5 family cemeteries, and 1 historic resource). Of the 15 archaeological sites identified within the study corridor, 13 sites (31HF260, 31HF261, 31HF262, 31HF263, 31HF264, 31HF265, 31HF266, 31HF267, 31HF269, 31HF270, 31HF271, 31HF274, and 31HF275) were recommended as not eligible for inclusion in the NRHP. In a memo dated July 9, 2004, the HPO concurred that these sites were not eligible for such listing, since "these properties do not retain the level of integrity nor do they possess the potential to yield significant new information pertaining to the prehistory of North Carolina." Both of the two remaining archaeological sites (31HF268 and 31HF278) are recommended as eligible for the NRHP.

The remaining historic resource identified as part of the intensive archaeological survey consists of the Mt. Tabor Baptist Church and its two associated cemeteries. Since Alternative C was added to the list of proposed alternatives after the intensive

archaeological survey was completed, the NCDOT conducted an additional preliminary review of the new location portion of Alternative C.

NCDOT has recommended that a detailed survey within the Alternative C corridor be conducted only if this alternative is selected as the preferred for the proposed project, due to the fact that the design and orientation of Alternative C may impact Site 31HF278, which is eligible for the NRHP. In a memo dated July 19, 2005, the HPO then concurred with the steps proposed by the NCDOT to evaluate any adverse effects to the extant cultural resources located either within or adjacent to the project.

### **Endangered Species**

The Corps has reviewed the project area, examined all information provided by the applicant and consulted the latest North Carolina Natural Heritage Database. Based on available information, the Corps has determined pursuant to the Endangered Species Act of 1973 (ESA), that the proposed project may affect federally listed endangered or threatened species or their formally designated critical habitat. The Red-cockaded woodpecker (*Picoides borealis*) is listed as endangered at the Federal and State levels. The Biological Conclusion for the species is **May Affect- Not Likely to Adversely Affect** due to the limited suitable habitat within the study area. The pine savanna within the eastern edge of the study area contains pines of intermediate age with an open understory; however, this area is relatively small and not contiguous with other suitable habitats. No individuals or nest cavities of this species were observed during the site visit. This survey and resulting Biological Conclusion are considered valid for two years from the date of the survey. A letter requesting USFWS concurrence on this Biological Conclusion will be submitted by NCDOT. Consultation under Section 7 of the ESA will be initiated and no permit will be issued until the consultation process is complete.

### **Evaluation**

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values (in accordance with Executive Order 11988), land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving the discharge of dredged or fill materials in waters of the United States, the evaluation of

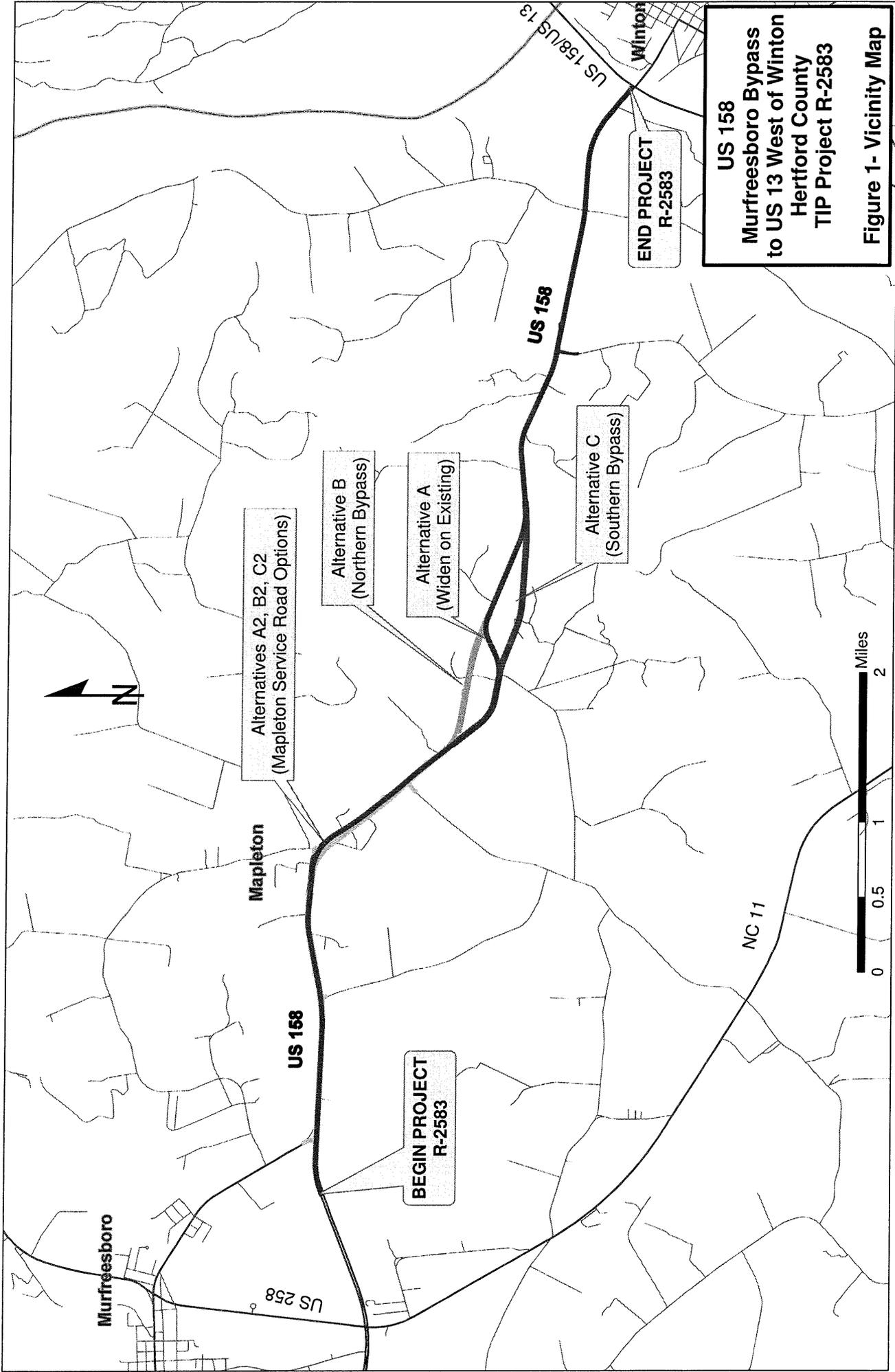
the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

### **Commenting Information**

In order to more fully integrate Section 404 permit requirements with the National Environmental Policy Act of 1969, and to give careful consideration to our required public interest review and 404 (b)(1) compliance determination, the Corps of Engineers is soliciting public comment on the merits of the proposal and on the alternatives evaluated in the EA. At the close of this comment period, the District Engineer will evaluate and consider the comments received as well as the expected adverse and beneficial impacts of the proposed bridge and road construction to select the least environmentally damaging, practicable alternative (LEDPA). The District Engineer is not authorizing construction of TIP # R- 2583 at this time. A final department of the Army permit could be issued, if at all, only after our review process is complete, impacts to the aquatic environment have been minimized to the maximum extent practicable, and a compensatory mitigation plan has been approved.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing shall be granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

Written comments pertinent to the proposed work, as outlined above, will be received by the Corps of Engineers, Wilmington District, until 5pm, July 30, 2007. Comments should be submitted to William Biddlecome, Washington Regulatory Field Office, Post Office Box 1000, Washington, North Carolina 27889.



**US 158**  
**Murfreesboro Bypass**  
**to US 13 West of Winton**  
**Hertford County**  
**TIP Project R-2583**

**Figure 1- Vicinity Map**

**END PROJECT**  
**R-2583**

**Alternatives A2, B2, C2**  
**(Mapleton Service Road Options)**

**Alternative B**  
**(Northern Bypass)**

**Alternative A**  
**(Widen on Existing)**

**Alternative C**  
**(Southern Bypass)**

**BEGIN PROJECT**  
**R-2583**

0 0.5 1 2  
**Miles**

