

# **US 701 Bridge Replacement Project over the Great Pee Dee River, Great Pee Dee River Overflow and Yauhannah Lake**

**Horry and Georgetown Counties,  
South Carolina**

**Environmental Assessment  
and  
Programmatic 4(f) Evaluation  
for the  
Waccamaw National Wildlife Refuge**

## **APPENDIX B Supporting Documentation and Correspondence**



**File No. 22.124 B  
Project No. BR88(044)  
PIN 30688X**



US 701 Bridge Replacement Project Over the Great Pee Dee River, Great Pee Dee  
River Overflow, and Yauhannah Lake  
Horry and Georgetown Counties, South Carolina

**ENVIRONMENTAL ASSESSMENT  
AND  
PROGRAMMATIC 4(f) EVALUATION  
FOR THE  
WACCAMAW NATIONAL WILDLIFE REFUGE**



Submitted by the  
U.S. Department of Transportation  
Federal Highway Administration  
and  
S.C. Department of Transportation

In cooperation with  
United States Fish and Wildlife Service  
and  
United States Coast Guard

# APPENDIX B

File No. 22.124 B

Project No. BR88(044)

PIN 30688X

Bridge Program

PROJECT	LOCATION	COUNTY	DISTRICT	Previous STIP(s)	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	STIP COST (2010-2015)	REMAINING COST (2016+)
ARRA DISTRIBUTION	STATEWIDE			1,124								
BRIDGE DECK REPAIR	STATEWIDE				2,500	2,500	2,500	2,500	2,500	2,500	\$15,000	
BRIDGE PAINTING	STATEWIDE			3,000	3,000	3,000	3,000	3,000	3,000	3,000	\$18,000	
BRIDGE INSPECTION & UNKNOWN BRIDGE FOUNDATIONS	STATEWIDE			3,000	4,500	4,500	4,500	4,500	4,500	4,500	\$27,000	
BRIDGE REPLACEMENT FEDERAL-AID											\$753,473	
SC 5	CATAWBA RIVER & S.L RAILROAD (3)	LANCASTER/YORK	4		22,406 RC			172 C				
SC 171	FOLLY RIVER	CHARLESTON	6	500 P	93 R	407 R	21,450 C					
	SOL LEGARE (FOLLY) CREEK	CHARLESTON	6	400 P	22 R		21,050 C					
SC 703	INTRACOASTAL WATERWAY (BEN SAWYER BRIDGE)	CHARLESTON	6	37,643 PC								
US 601	CONGAREE RIVER AND SWAMPS (4)	CALHOUN/RICHLAND	7	2,883 PR	42,344 C							
US 378	LITTLE PEE DEE RIVER AND SWAMP (6)	HORRY/MARION	5	10,542 C								
S-20	BOHICKET CREEK	CHARLESTON	6	3,641 C								
US 15	SCL RAILROAD & STREET	SUMTER	1		1,400 P	60 R	14,653 C					
US 378	GREAT PEE DEE RIVER	FLORENCE/MARION	5	26,401 C								
US 21	CATAWBA RIVER	YORK	4	6,941 C								
US 176	BROAD RIVER	RICHLAND	1	24,955 C	205 P							
SC 41 (DESIGN BUILD)	WANDO RIVER	BERKELEY	6					27,500 RC	27,500 RC			
US 701	GREAT PEE DEE RIVER (3)	GEORGETOWN/HORRY	5		290 P			300 R 22,500 C	22,500 C			
SC 174	STORE CREEK	CHARLESTON	6		45 R			3,935 C				
US 76	EBL - WATEREE RIVER SWAMP-1	SUMTER	1	14,783 C								
US 76	EBL - WATEREE RIVER SWAMP-3	SUMTER										
US 76	EBL - WATEREE RIVER SWAMP-2	SUMTER										
US 76	EBL & WBL - MILL CREEK	RICHLAND	1			198 P	350 P	75 R	6,500 C			
US 78	CSX RR & S-39	CHARLESTON	6	1,800 P	1,549 R	579 R		20,050 C				
S-26-31	WACCAMAW RIVER SWAMP	HORRY	5		300 P	700 P		5,000 C				
S-26-31	WACCAMAW SWAMP	HORRY				30 R						
S-26-31	WACCAMAW SWAMP	HORRY										
S-26-31	WACCAMAW RIVER SWAMP	HORRY										
S-26-31	WACCAMAW RIVER SWAMP	HORRY										
SC 9	BROAD RIVER	CHESTER/UNION	4		445 P			481 P	500 R	17,000 C		
SC 9	BROAD RIVER CANAL	UNION										
SC 9	S-46	UNION										
SC 9	S-31	UNION										
SC 49	ENOREE RIVER	LAURENS	2	5,613 C								
US 76	SCAPE ORE CREEK	SUMTER	1	300 P	12 R		3,300 C					
SC 174	SAND CREEK	CHARLESTON	6		12 R			5,843 C				
US 21	ALBERGOTTI CREEK	BEAUFORT	6		355 R			4,700 C				
US 76 BYP	US 521	SUMTER	1		351 P	249 P	5,135 C					
S-36-642	NORTH BRANCH OF SCOTTS CREEK	NEWBERRY	2			200 P		25 R	1,900 C			
S-10-379	NOISETTE CREEK	CHARLESTON	6		20 R			4,300 C				
SC 72	FISHING CREEK	YORK	4					75 R		4,600 C		
S-44-86	BIG BROWN CREEK	UNION	4			200 P 25 R	1,700 C					
SC 97	ROCKY CREEK	CHESTER	4					100 R	6,500 C			
US 52	BLACK CREEK	DARLINGTON	5	1,105 PR	6,200 C							
S-11-41	FURNACE CREEK	CHEROKEE	4	100 P	1,000 RC							
US 29	SOUTHERN RAILROAD	CHEROKEE	4	300 P	550 R	4,900 C						
S-10-86	CSX RR (L-9999)	CHARLESTON	6	770 P				30 R	7,700 C			
SC 174	RUSSELL CREEK	CHARLESTON	6		30 R			5,910 C				
SC 7	CSX & NORTHFOLK SOUTHERN RR & S-39	CHARLESTON	6	2,300 P		2,660 R		14,000 C	11,600 C			

# **Biological Assessment of Potential Impacts to Threatened or Endangered Species**



Biological Assessment of Potential Impacts to Threatened or Endangered  
Species

**US 701 Bridge Replacement Project Over the Great Pee Dee River, Pee Dee  
River Overflow, and Yauhannah Lake  
Horry and Georgetown Counties, South Carolina**

April 28, 2009

Prepared by:  
The South Carolina Department of Transportation  
(On behalf of the Federal Highway Administration)  
P.O. Box 191  
Columbia, SC 29202-091

**Biological Assessment for the U.S. 701 Bridge Replacement Project Over  
the Great Pee Dee River, Pee Dee Overflow, and Yauhannah Lake in Horry/  
Georgetown Counties, South Carolina**

**INTRODUCTION / PROJECT DESCRIPTION**

The US 701 Bridge Replacement project consists of the replacement and realignment of an approximately two mile long section of US 701 located in Georgetown and Horry Counties. The project involves the replacement of three bridges on US 701 through rural, undeveloped, light residential and light commercial portions of Horry and Georgetown Counties. The project would involve replacing the three existing US 701 bridges over Yauhannah Lake, the Great Pee Dee River, and the Great Pee Dee River Overflow, as indicated on the location maps included as Figure 1, Figure 2 and Figure 3. The study area consists of a corridor that is approximately two miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection in Horry County, to a point near the US 701 / Trinity Road intersection in Georgetown County. The project involves the bridge replacements as well as the construction of new roadway approach alignment. The project corridor crosses the referenced water bodies, as well as extensive floodplain forested wetlands. The Waccamaw National Wildlife Refuge occupies much of the project corridor study area.

The existing bridges were built in the early 1950s replacing the older bridges constructed circa 1920. The existing bridges have been inspected by the Department and have been rated structurally deficient and are in need of replacement for public safety reasons. The periodic addition of asphalt or other highway surfacing materials to the bridge structures causes additional strain and settling of the structures. The purpose of the project is to replace the structurally deteriorated and functionally obsolete existing US 701 bridges and maintain the principal direct rural connection between the larger towns of Conway and Georgetown, as well as the smaller communities such as Bucksport and Yauhannah in between.

The Department has considered location and design alternatives in the planning process. The “no-build” alternative, which consists of the Department making no improvements, was considered as a baseline for comparison; however, the “no-build” alternative would not improve the safety and structural characteristics of the bridge / highway system. Therefore, this alternative is not considered acceptable.

Alternatives to the northwest side of the existing route, to the southeast side of the existing route, and a combination of sides were initially considered in the development of the recommended project alignment. Four alternative alignments were included for an in-depth evaluation as part of this study. Alternatives 1 and 2 are located 72 feet and 55 feet, respectively, northwest of the existing alignment. Alternatives 3 and 4 are located 55 and 72 feet, respectively, southeast of the existing alignment. Based on a review of potential environmental impacts and other considerations, Alternative 3 has been identified as the preferred alternative.

## **BIOLOGICAL ASSESSMENT**

Pursuant to Section 7 of the Endangered Species Act (ESA) a field survey was conducted on the proposed new right of way. The following list of endangered (E) and threatened (T) species was obtained from the U. S. Fish and Wildlife Service (USFWS) and NOAA Fisheries:

### **Horry and Georgetown Counties**

#### **Animals**

Blue whale – *Balaenoptera musculus* (E)  
Finback whale - *Balaenoptera physalus* (E)  
Humpback whale – *Megaptera novaeangliae* (E)  
North Atlantic right whale – *Eubalaena glacialis* (E)  
Sei whale – *Balaenoptera borealis* (E)  
Sperm whale – *Physeter macrocephalus* (E)  
Green sea turtle – *Chelonia mydas* (T)  
Hawksbill sea turtle – *Eretmochelys imbricata* (E)  
Kemp's ridley sea turtle – *Lepidochelys kempii* (E)  
Leatherback sea turtle – *Dermochelys coriacea* (E)  
Loggerhead sea turtle – *Caretta caretta* (T)  
West Indian manatee – *Trichechus manatus* (E)  
Shortnose sturgeon – *Acipenser brevirostrum* (E)  
Bald eagle – *Haliaeetus leucocephalus* (BGEPA))  
Red-cockaded woodpecker – *Picoides borealis* (E)  
Wood stork – *Mycteria americana* (E)  
Piping plover – *Charadrius melodus* (T)  
Kirtland's warbler – *Dendroica kirtlandii* (E)

#### **Plants**

Sea-beach amaranth – *Amaranthus pumilus* (T)  
Pondberry – *Lindera melissifolia* (E)  
Canby's dropwort – *Oxypolis canbyi* (E)  
American chaffseed – *Schwalbea americana* (E)

## **METHODS**

The project area was examined by reconnaissance methods in January, March and June of 2005. Habitats surveyed were determined by each species ecological requirements. The species listing information was updated and verified from the USFWS Ecological Services website and the NOAA Fisheries Service website in April of 2009.

## **RESULTS**

The two mile section of the US 701 corridor is very rural and is dominated by the water bodies and wooded floodplain landscape that the three bridges traverse. The Waccamaw National Wildlife Refuge occupies much of the project corridor study area. The project corridor consists primarily of two types of habitat. The predominant habitat is palustrine forested floodplain wetland, consisting of bald cypress (*Taxodium distichum*), swamp tupelo (*Nyssa biflora*), red maple (*Acer rubrum*), river birch (*Betula nigra*), titi (*Cyrilla racemiflora*), willow oak (*Quercus phellos*), and laurel oak (*Quercus laurifolia*). At either end of the corridor, the habitat becomes a drier, sandy upland with loblolly pine (*Pinus taeda*), water oak (*Quercus nigra*), and other similar species.

### **Wetlands**

Wetland impacts will be minimized with longer bridge spanning, best management practices (BMPs) and utilizing to the degree practicable the existing US 701 causeway fill. The alignment will also cross, via bridging, Yauhannah Lake in the Georgetown County portion and the Great Pee Dee River, located between Georgetown County and Horry County. Due to the linear nature of the project, and the homogeneity of the habitats, wetland impacts would be similar for all build alternatives considered; however, Alternative 3 (55 feet downstream of existing alignment) would result in the least amount of wetland impacts and is the preferred alternative.

### **Northwestern Alternatives**

The northwestern alternatives studied included an alignment located 55 feet upstream (northwest) of the existing centerline and an alignment located 72 feet upstream of the existing centerline.

The 72' Upstream Alternative would result in a cumulative wetland impact of approximately 7.47 acres, including impacts for the construction of boat landing access roads. The 55' Upstream Alternative would result in cumulative wetland impacts of approximately 5.82 acres, including the boat landing access roads. The alignments would also cross, via bridging, Yauhannah Lake in the



Georgetown County portion and the Great Pee Dee River, located between Georgetown County and Horry County.

### **Southeastern Alternatives**

The southeastern alternatives studied included an alignment located 55 feet downstream (southeast) of the existing centerline and an alignment located 72 feet downstream of the existing centerline.

The 72' downstream Alternative would result in a cumulative wetland impact of approximately 5.71 acres, including impacts for the construction of boat landing access roads. The 55' downstream Alternative would result in a cumulative wetland impact of approximately 4.45 acres, including the boat landing access roads. The alignments would also cross, via bridging, Yauhannah Lake in the Georgetown County portion and the Great Pee Dee River, located between Georgetown County and Horry County. During consideration of alternative alignments it has become apparent that Alternative 3 (55 feet downstream) would result in the fewest wetland impacts and would also result in the fewest relocations and property impacts.

### **Threatened / Endangered Species**

The blue whale (*Balaenoptera musculus*), the finback whale (*Balaenoptera physalus*), the humpback whale (*Megaptera novaeangliae*), the North Atlantic right whale (*Eubalaena glacialis*), the sei whale (*Balaenoptera borealis*), and the sperm whale (*Physeter macrocephalus*) are marine mammals and are listed for South Carolina as endangered species. These species are oceanic species and would not be expected to occur in the action area and the project would not affect these species.

The green sea turtle (*Chelonia mydas*) and the loggerhead sea turtle (*Caretta caretta*) are marine turtles listed as threatened for South Carolina. The hawksbill sea turtle (*Eretmochelys imbricata*), the Kemp's ridley sea turtle (*Lepidochelys kempi*), and the leatherback sea turtle (*Dermochelys coriacea*) are marine turtles listed as endangered for South Carolina. These species are marine species, primarily occurring in the near shore and off-shore environment. Nesting for each of these species has occurred along South Carolina beaches; however, none of these species would be expected to occur this far inland in the action area and the project would not affect these species.

The West Indian manatee (*Trichechus manatus*) is listed as an endangered species for Horry and Georgetown Counties. According to manatee sighting information on the SCDNR website, there have been no known sightings of manatees this far inland in the Great Pee Dee River. Manatees would not be expected to occur this far from the marine/estuarine environment.

The shortnose sturgeon (*Acipenser brevirostrum*) is known to exist in the Great Pee Dee River. Dr. Mark Collins, with the South Carolina Department of Natural Resources (SCDNR), has indicated that the shortnose sturgeon makes a spawning migration past the US 701 bridge over the Great Pee Dee River from January to mid-April. It has been recommended that no blasting, pile driving or other activities that may disrupt the sturgeon migration be conducted during this time frame. In the past, the SCDOT and NOAA Fisheries have entered into agreements regarding seasonal construction moratoriums for similar projects.

The refuge manager has indicated that there have been reports of a pair of bald eagles (*Haliaeetus leucocephalus*) in the Yauhannah Lake area; however, he has not been able to confirm the location. The bald eagle is no longer considered threatened under the ESA; however, protection is afforded this species under the Bald and Golden Eagle Protection Act. The project corridor area is considered to be potential foraging habitat for the bald eagle, with major water bodies and large trees suitable for perching. However, no bald eagles were observed during reconnaissance of the project corridor area. Additionally, no occurrences of the bald eagle were indicated on the SCDNR Heritage Trust inventory of threatened and endangered species.

No red cockaded woodpecker (*Picoides borealis*) cavity trees were found within a half-mile of the project. Additionally, the refuge manager provided a map of known occurrences of several bird species in the area. Based on this information, the closest known red cockaded woodpecker colony is located approximately 4.5 miles southeast of the project.

No wood storks (*Mycteria americana*) have been observed during reconnaissance of the project corridor area. The refuge manager has previously indicated that wood storks are known to use the Waccamaw National Wildlife Refuge, but not in the project corridor area. No occurrences of the wood stork in the project corridor area were documented in the SCDNR Heritage Trust inventory of threatened and endangered species.

The Piping Plover (*Charadrius melodus*) is not considered likely in the project area due to the absence of coastal beach and dune habitat.

The Kirtland's warbler (*Dendroica kirtlandii*) is a neo-tropical migratory bird species, and is considered a possible part time resident of Horry and Georgetown Counties. The species is a transient migrant and is not likely to be in the project area for a significant period of time as it migrates between the breeding grounds in Michigan, Wisconsin and Ontario and the wintering grounds in the Bahamas.

Sea-beach Amaranth (*Amaranthus pumilus*) is not considered likely in the project area due to the absence of coastal beach and dune habitat.

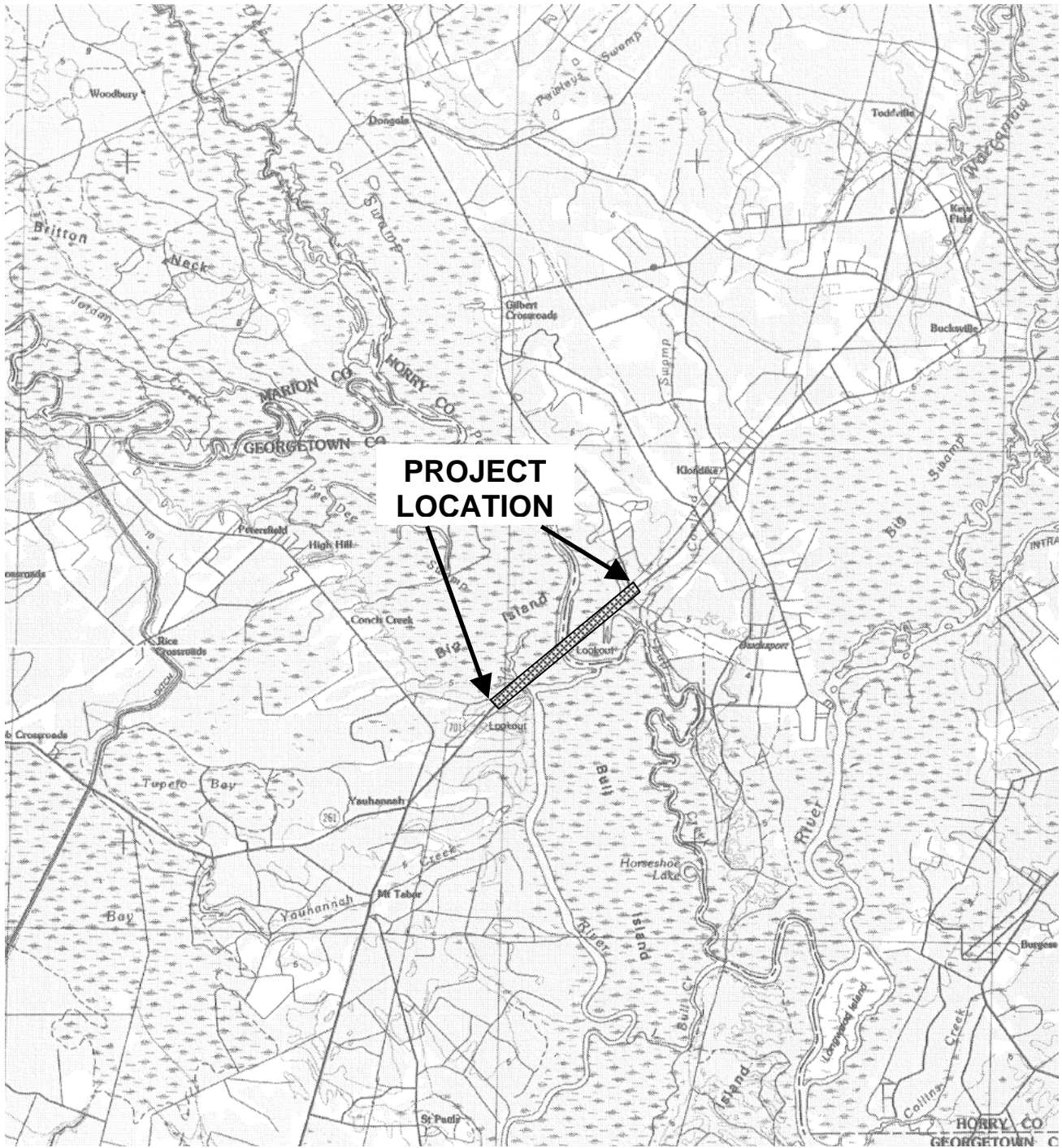
Pondberry (*Lindera melissifolia*) was not observed in the project corridor area during reconnaissance efforts. The habitat observed is not considered suitable for this species, as the species prefers sandy sinks and pond margins, and is more commonly found associated with karst topography in South Carolina. No occurrences of this species in this area was documented in the SCDNR Heritage Trust inventory of threatened and endangered species.

Canby's dropwort (*Oxypolis canbyi*) was also not observed during reconnaissance of the project corridor. The project corridor area is not considered to contain likely habitat for this species, as the wet margins of the forested wetland areas are predominantly overshadowed by dense forest canopy and are not similar to the more typical pond cypress savannahs the plant prefers. No occurrences of this species in this area was documented in the SCDNR Heritage Trust inventory of threatened and endangered species.

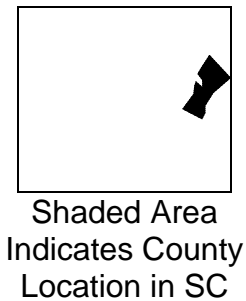
American chaffseed (*Schalbea americana*) was not observed during reconnaissance of the project corridor. The plant is not considered likely to be present due to the lack of suitable habitat, such as significant fire maintained areas.

## **SUMMARY**

The 55' downstream alternative is preferred due to various design criteria, as well as minimized impacts to the wetlands and the fewest relocations and property impacts. Although the sturgeon is known to exist in the Great Pee Dee River, based on the planned implementation of an in water construction moratorium during migration (January – April) and the use of best management practices throughout the construction project, it has been determined that the project may affect, but is not likely to adversely affect the shortnose sturgeon. As considerations of potential impacts to the shortnose sturgeon fall under the jurisdiction of NOAA Fisheries Service, and it has been determined that the project may affect, but is not likely to affect this species, a separate Biological Assessment has been prepared for the shortnose sturgeon. Based on the site reconnaissance and the available background information, the proposed action is not expected to affect any other threatened or endangered species or critical habitats currently listed by the USFWS.



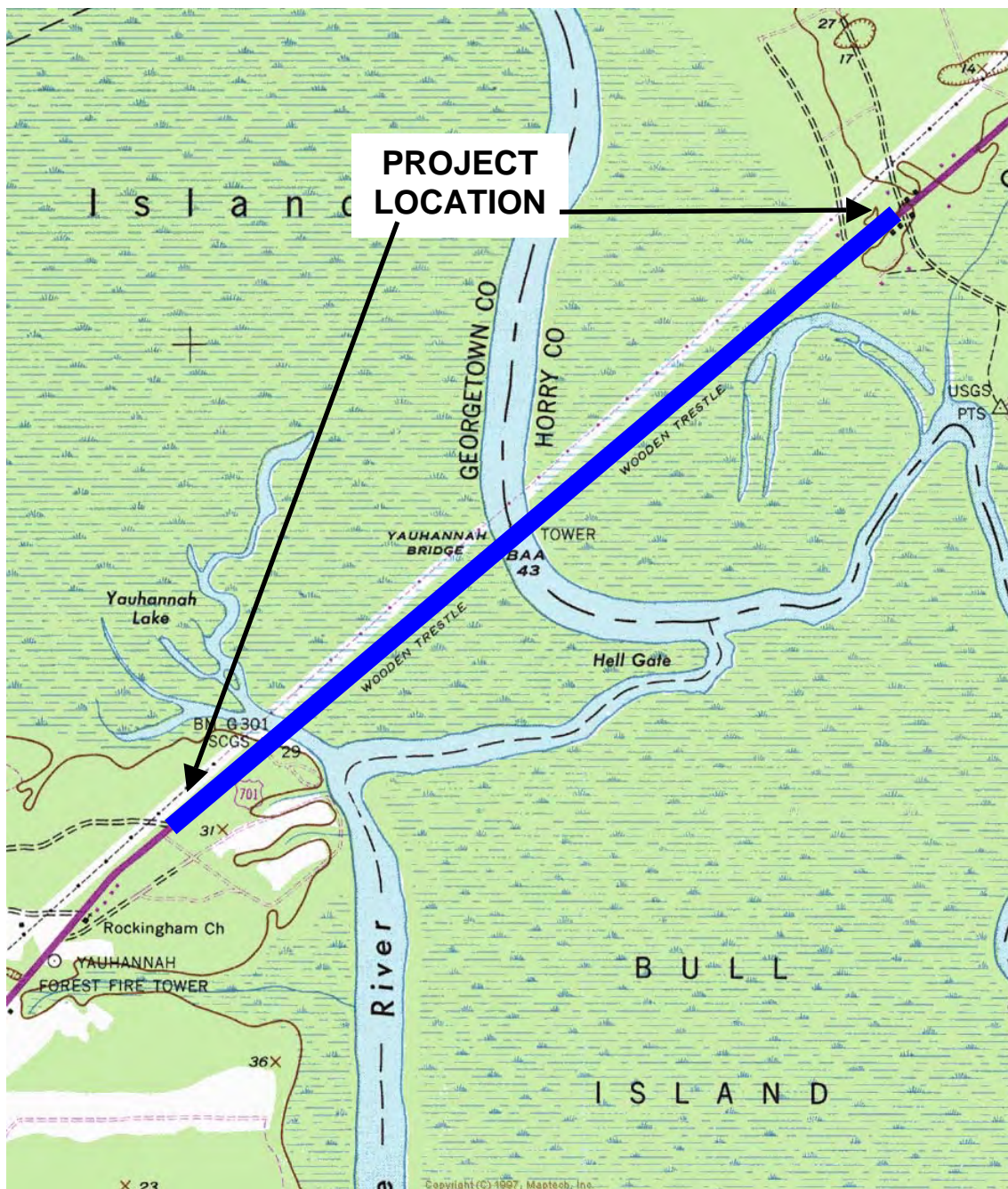
**FIGURE 1**  
**U.S. 701 BRIDGE REPLACEMENT PROJECT**  
**HORRY AND GEORGETOWN COUNTIES, S.C.**



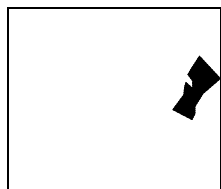
SCALE 0 2 MILE







**USGS 7.5 Minute Yauhannah Quad**



Shaded Area  
Indicates County  
Location in SC

**FIGURE 2**  
**U.S. 701 BRIDGE REPLACEMENT PROJECT**  
**HORRY AND GEORGETOWN COUNTIES, S.C.**

NO SCALE



**Biological Assessment of Potential Impacts  
to the Shortnose Sturgeon (*Acipenser  
brevirostrum*)**



South Carolina  
Department of Transportation

May 22, 2009

Mr. Michael Barnett  
NOAA Fisheries  
Southeast Regional Office  
263 13<sup>th</sup> Avenue South  
St. Petersburg, Florida 33701

RE: Avoidance of Construction Impacts to the Endangered Shortnose Sturgeon – Bridge Replacements on US 701 over the Great Pee Dee River, Pee Dee Overflow, and Lake Yauhannah in Horry and Georgetown Counties, File No. 22.124B, PIN 30688

Dear Mr. Barnett:

This letter is intended to request informal consultation regarding potential impacts to the shortnose sturgeon (*Acipenser brevirostrum*) for the above referenced project site. The project would involve replacing three bridges over the Great Pee Dee River Pee Dee Overflow, and Lake Yauhannah. Improvements also include modifications to the bridge approaches.

The Department has agreed to implement a seasonal moratorium for all in water work between January 1 and April 15 and work will not impede more than 50 percent of the channel during the months of January through April. No special measures will be employed outside of this moratorium except for normal Best Management Practices.

As a result of implementing these measures, the project may affect, but is not likely to adversely affect, the endangered shortnose sturgeon. Please review the enclosed natural resources report at your earliest convenience and provide the Department with your comments on this finding.

Thank you for your assistance in this matter. If you have any questions regarding these measures, you may contact me at (803) 737-1861.

Sincerely,

Edward W. Frierson  
Environmental Project Manager

EWf:ewf

Enclosures

cc: Tuhin Basu, TB and Assoc. (letter only)

File: Env/EWF



Biological Assessment of Potential Impacts to the Shortnose  
Sturgeon (*Acipenser brevirostrum*)

**US 701 Bridge Replacement Project Over the Great Pee  
Dee River, Pee Dee River Overflow, and Yauhannah Lake  
Horry and Georgetown Counties, South Carolina**

Prepared for:  
NOAA Fisheries Service  
Southeast Regional Office  
263 13<sup>th</sup> Avenue South  
St. Petersburg, Florida 33701

Prepared by:  
The South Carolina Department of Transportation  
(On behalf of the Federal Highway Administration)  
P.O. Box 191  
Columbia, SC 29202-091

April 28, 2009



**Biological Assessment of Potential Impacts to the Shortnose Sturgeon  
(*Acipenser brevirostrum*) for the U.S. 701 Bridge Replacement Project Over  
the Great Pee Dee River, Pee Dee Overflow, and Yauhannah Lake in Horry/  
Georgetown Counties, South Carolina**

## **Introduction / Project Description**

The US 701 Bridge Replacement project consists of the replacement and realignment of an approximately two mile long section of US 701 located in Georgetown and Horry Counties. The project involves the replacement of three bridges on US 701 through rural, undeveloped, light residential and light commercial portions of Horry and Georgetown Counties. The project would involve replacing the three existing US 701 bridges over Yauhannah Lake, the Great Pee Dee River, and the Great Pee Dee River Overflow, as indicated on the location maps included as Figure 1, Figure 2 and Figure 3. The study area consists of a corridor that is approximately two miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection in Horry County, to a point near the US 701 / Trinity Road intersection in Georgetown County. The project involves the bridge replacements as well as the construction of new roadway approach alignment. The project corridor crosses the referenced water bodies, as well as extensive floodplain forested wetlands. The Waccamaw National Wildlife Refuge occupies much of the project corridor study area.

The existing bridges were built in the early 1950s replacing the older bridges constructed circa 1920. The existing bridges have been inspected by the Department and have been rated structurally deficient and are in need of replacement for public safety reasons. The periodic addition of asphalt or other highway surfacing materials to the bridge structures causes additional strain and settling of the structures. The purpose of the project is to replace the structurally deteriorated and functionally obsolete existing US 701 bridges and maintain the principal direct rural connection between the larger towns of Conway and Georgetown, as well as the smaller communities such as Bucksport and Yauhannah in between.

The Department has considered location and design alternatives in the planning process. The “no-build” alternative, which consists of the Department making no improvements, was considered as a baseline for comparison; however, the “no-build” alternative would not improve the safety and structural characteristics of the bridge / highway system. Therefore, this alternative is not considered acceptable.

Alternatives to the northwest side of the existing route, to the southeast side of the existing route, and a combination of sides were initially considered in the development of the recommended project alignment. Four alternative alignments were included for an in-depth evaluation as part of this study. Alternatives 1 and 2 are located 72 feet and 55 feet, respectively, northwest of the existing alignment. Alternatives 3 and 4 are located 55 and 72 feet, respectively, southeast of the existing alignment. Based on a review of potential environmental impacts and other considerations, Alternative 3 has been identified as the preferred alternative.

Review of endangered species listings available from the United State Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) has indicated the potential occurrence of the shortnose sturgeon (*Acipenser brevirostrum*) within the waters of the Great Pee Dee River. The shortnose sturgeon is federally listed as endangered. This Biological Assessment has been prepared to determine the potential effects of the project on the endangered shortnose sturgeon.

## **Action Area**

The Department proposes to replace the three US 701 bridges over the Great Pee Dee Overflow, the Great Pee Dee River, and Yauhannah Lake. New roadway approach will also be necessary. The existing bridges will be demolished upon construction of the new alignment. The area that has been studied for alternative alignments consists of a corridor that is approximately two miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection in Horry County, to a point near the US 701 / Trinity Road intersection, in Georgetown County. Construction of the new bridge system would take place adjacent to the existing alignment.

## **Shortnose Sturgeon Information**

The shortnose sturgeon is an anadromous fish that inhabits coastal rivers and estuaries along the eastern coast of the United States, spending most of their time closer to the estuarine areas and portions of the river where fresh river water meets the saltier estuarine water. Northern populations tend to use freshwater river environments more extensively than southern populations. The sturgeon make periodic spawning migrations into faster moving freshwater areas (NOAA Fisheries, 2009). In South Carolina, spawning areas can include flooded hardwood swamps along rivers (Natureserve, 2009). Spawning in South Carolina typically occurs from February to April (SCDNR, 2009). Shortnose sturgeon are benthic feeders, feeding on mollusks, crustaceans, insect larvae and polychaete worms.

The shortnose sturgeon is listed as federally endangered throughout its range. The federal listing dates to March 11, 1967 and was originally issued under the Endangered Species Preservation Act of 1966 (Federal Register, March 11, 1967). According to the National Marine Fisheries Service Final Recovery Plan (1998) there are 19 population segments defined by river/estuarine system and being somewhat less common in the southern portions of its range. According to the plan, the shortnose sturgeon occurs in the river systems emptying into Winyah Bay, specifically the Waccamaw, Pee Dee and Black Rivers. Shortnose sturgeon were found to be present in the Winyah Bay system during the late 1970s and early 1980s; however, the recovery plan does not contain data on population dynamics (NMFS, 1998). Threats to the shortnose sturgeon include habitat degradation and loss resulting from things such as dams, bridge construction, channel dredging and pollution; and mortality due to such things as impingement on cooling water intake screens, dredging and incidental capture in other fisheries (NMFS, 1998). Historically, overfishing, industrial development and damming of rivers has contributed to population decline (Hill, 2006). The goal of the federal recovery plan is for populations to recover to levels at which protection under the Endangered Species Act is no longer necessary.

### **Direct and Indirect Effects**

Direct effects on the shortnose sturgeon could occur as a result of a taking during construction or through disruption of the spawning migration. A “take” is defined by the Endangered Species Act to mean harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in such conduct. The most likely occurrence of sturgeon in this area would be during the spawning migration. Measures that can be taken to protect shortnose sturgeon include avoiding in-water construction work during the migration period.

Indirect effects to the shortnose sturgeon could occur if bridge construction activities result in extended impacts to water quality. Best management practices should be utilized year round during bridge construction activities in order to minimize impacts to water quality.

### **Cumulative Effects**

Bridge replacement projects are planned for US 378 over the Little Pee Dee River and the Great Pee Dee River, located approximately 13 miles and 24 miles, respectively, northwest of the US 701 project. These projects are similar in nature to the proposed replacement of the US 701 Bridges and would also undergo an environmental

assessment process. Based on the environmental assessment process, the projects will be required to take appropriate measures to protect the affected environment, mitigate potential effects, and utilize best management practices during construction. Based on this and the distances to these projects it is not expected that significant cumulative impacts to the shortnose sturgeon will occur.

## **Conclusions and Determination of Effect**

The shortnose sturgeon (*Acipenser brevirostrum*) is known to exist in the Great Pee Dee River as a seasonal migrant. The shortnose sturgeon makes a spawning migration past the US 701 bridge over the Great Pee Dee River from January to mid-April (Mark Collins, SCDNR, personal communication, 2005). It has been recommended that no blasting, pile driving in water or other activities that may disrupt the sturgeon migration be conducted during this time frame. Based on this information, it is recommended that a seasonal moratorium for all in water work related to the bridge replacement project be implemented for the period of January through April. The contractor should also use applicable best management practices year round in order to preserve water quality at the project site. Additionally, due to the protective measures of the seasonal in water construction moratorium and best management practices, the project may affect, but is not likely to adversely affect the endangered shortnose sturgeon.

## **References**

- Collins, Mark, PhD. SCDNR. 2005, 2009. Personal Communication.
- Endangered Species Preservation Act of 1966 (Federal Register, March 11, 1967)
- Hill, K. 2006. *Acipenser brevirostrum* Species Inventory; Smithsonian Marine Station at Fort Pierce Website. [http://www.sms.si.edu/irlSpec/Acipes\\_brevir.htm](http://www.sms.si.edu/irlSpec/Acipes_brevir.htm)
- National Marine Fisheries Service. 1998. *Final Recovery Plan for the Shortnose Sturgeon (Acipenser brevirostrum)*. U.S. Department of Commerce, National Oceanic and Atmospheric Administration.
- NatureServe Explorer Website, 2009.  
<http://www.natureserve.org/explorer/servlet/NatureServe?searchName=Acipenser+brevirostrum>
- NOAA Fisheries, Office of Protected Resources Website, April 2009.  
<http://www.nmfs.noaa.gov/pr/species/fish/shortnosesturgeon.htm>
- South Carolina Department of Natural Resources, 2009.  
<http://www.dnr.sc.gov/marine/mrri/acechar/specgal/sturgeon.htm>



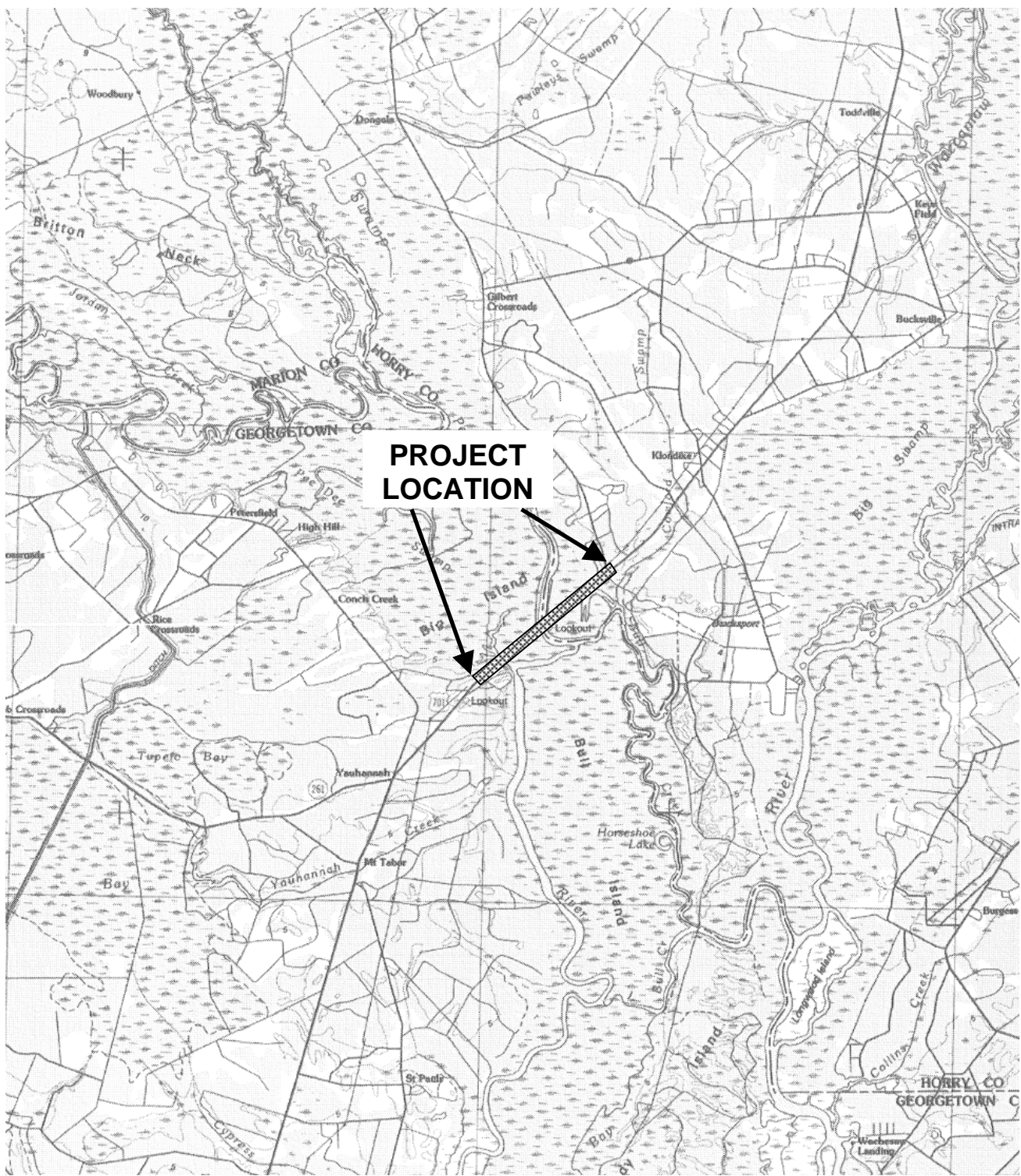


Shaded Area Indicates  
County Location in SC

**FIGURE 1 – SITE LOCATION MAP**  
**U.S. 701 BRIDGE REPLACEMENT PROJECT**  
**HORRY AND GEORGETOWN COUNTIES, S.C.**

No Scale



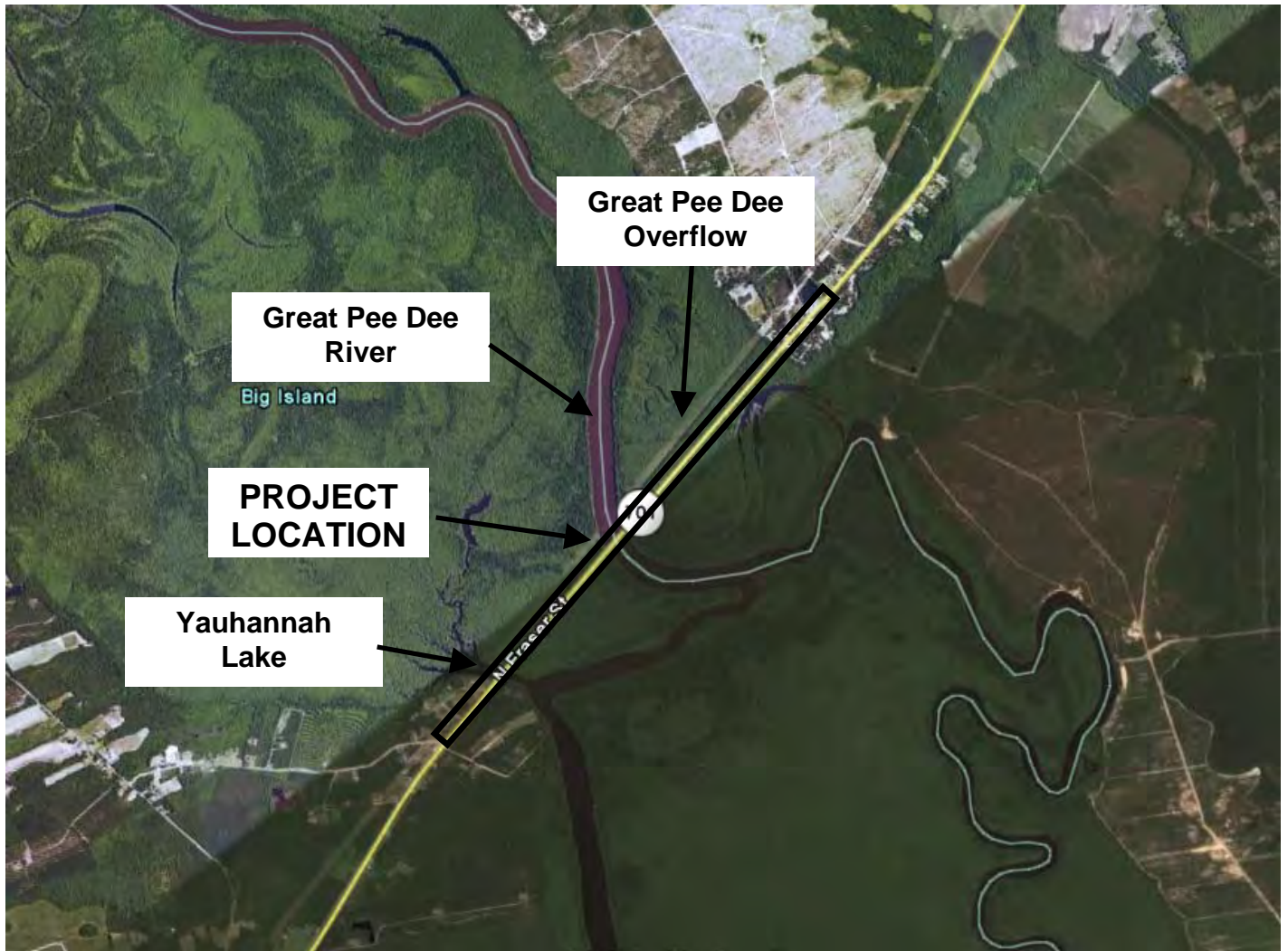


Shaded Area Indicates  
County Location in SC

**FIGURE 2 – TOPOGRAPHIC SITE LOCATION MAP  
U.S. 701 BRIDGE REPLACEMENT PROJECT  
HORRY AND GEORGETOWN COUNTIES, S.C.**

SCALE 0 2 MILE





Google Earth Aerial Photograph



Shaded Area Indicates County  
Location in SC

**FIGURE 3 – AERIAL PHOTOGRAPH SITE  
LOCATION MAP**  
**U.S. 701 BRIDGE REPLACEMENT PROJECT**  
**HORRY AND GEORGETOWN COUNTIES, S.C.**

No Scale



**Supplemental Information To**  
Biological Assessment of Potential Impacts to the Shortnose  
Sturgeon (*Acipenser brevirostrum*)

**US 701 Bridge Replacement Project Over the Great Pee  
Dee River, Pee Dee River Overflow, and Yauhannah Lake  
Horry and Georgetown Counties, South Carolina**

Prepared for:  
NOAA Fisheries Service  
Southeast Regional Office  
263 13<sup>th</sup> Avenue South  
St. Petersburg, Florida 33701

Prepared by:  
The South Carolina Department of Transportation  
(On behalf of the Federal Highway Administration)  
P.O. Box 191  
Columbia, SC 29202-091

August 18, 2009

**Supplemental Information to:**

**Biological Assessment of Potential Impacts to the Shortnose Sturgeon  
(*Acipenser brevirostrum*) for the U.S. 701 Bridge Replacement Project Over  
the Great Pee Dee River, Pee Dee Overflow, and Yauhannah Lake in Horry/  
Georgetown Counties, South Carolina**

This document is intended as a follow up to the NOAA Fisheries Service May 22, 2009 request for informal consultation regarding impacts to the shortnose sturgeon (*Acipenser brevirostrum*) for the above referenced project site. The e-mail response from Sarah Heberling of NOAA Fisheries, originally dated June 11, 2009, requested additional information (Heberling, 2009).

The US 701 Bridge Replacement project consists of the replacement and realignment of an approximately two mile long section of US 701 located in Georgetown and Horry Counties. The project involves the replacement of three bridges on US 701 through rural, undeveloped, light residential and light commercial portions of Horry and Georgetown Counties. The project would involve replacing the three existing US 701 bridges over Yauhannah Lake, the Great Pee Dee River, and the Great Pee Dee River Overflow. The study area consists of a corridor that is approximately two miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection in Horry County, to a point near the US 701 / Trinity Road intersection in Georgetown County. The project involves the bridge replacements as well as the construction of new roadway approach alignment. The project corridor crosses the referenced water bodies, as well as extensive floodplain forested wetlands. The Waccamaw National Wildlife Refuge occupies much of the project corridor study area.

The additional information gathered regarding the site is contained below.

- The approximate latitude and longitude coordinates of the project are N33.66067, W79.15407.
- The bridge over the Great Pee Dee River has 34 existing piers, six of which are in water. Four abandoned concrete piers from a previous bridge are adjacent to the existing bridge on the downstream side. Two of these piers are in the river and one is on each river bank.
- Based on available mapping, the distance to the coast from the project, as the shortest straight line distance, is approximately 10.6 miles. However, the straight line distance from the project site to where the Great Pee Dee River enters Winyah Bay, which would be the first access to the Great Pee Dee River coming from the Atlantic Ocean, is approximately 21 miles, not accounting for river meanders (see attached map). Although under periods of very low river flow, the freshwater saltwater interface may extend approximately 16 miles upstream from mile 0 of the Waccamaw and Pee Dee Rivers (at the upper reaches of Winyah Bay), under average flow and tide conditions, the interface only penetrates to approximately 5 miles above this point near the US 17 Bridge (Johnson, 1972). Additionally, the South Carolina Department of Health and Environmental Control (SCDHEC) water



quality monitoring site PD-061 is located at the US 701 Bridge over the Great Pee Dee River (the project site). The river at this location is classified by SCDHEC as freshwater. The SCDHEC Hydrologic Unit Monitoring report for this area indicates that the next downstream monitoring station (MD-275) is located in the freshwater/saltwater mixing zone. This monitoring station is located approximately 4.5 miles upstream of the Pee Dee River entrance to Winyah Bay and approximately 16.5 miles downstream of the project site at US 701 (SCDHEC Hydrologic Unit Report 03040207-02). Based on this information it appears that the freshwater/saltwater interface is located well downstream of the project site.

- According to the Cultural Resources assessment report for this project, which included a magnetic and acoustic remote sensing survey, the water depth in the Great Pee Dee River varies based on flow conditions; however, during the survey in 2005, maximum depths were recorded as 22 feet on the north side of the bridge and 30 feet on the south side of the bridge. The maximum depth at the survey site in Yauhannah Lake was 14 feet (Adams, 2005).
- Telemetry studies by the SCDNR have confirmed one shortnose sturgeon spawning location in the Great Pee Dee River (Alcoa Power Generating, Inc., 2006). The site is located near Cashua Ferry, and consists of emergent gravel bars, pebble to small cobble substrate, fast riffle currents, and a nearby deep channel area (Alcoa Power Generating, Inc., 2006). The project site does not appear to offer these conditions. Dr. Mark Collins, with the South Carolina Department of Natural Resources, Marine Resources Research Institute, has indicated that the shortnose sturgeon probably do not spawn at this location; however, they may aggregate here and an awareness of the presence of the sturgeon in this area is warranted (Collins, Personal Communication, 2009).

## References

- Adams, N.P., 2005. Phase I Cultural Resources Survey of the Proposed US Hwy 701 Bridge Improvements, Georgetown and Horry Counties, South Carolina. Submitted to ARM Environmental Services, Inc., June 2005.
- Alcoa Power Generating, Inc., 2006. Yadkin Hydroelectric Project, FERC No. 2197, License Application, Exhibit E.
- Collins, Mark, PhD. SCDNR. 2005, 2009. Personal Communication.
- Heberling, S.E. (NOAA Fisheries), 2009. E-mail to Ed Frierson (SCDOT), originally dated June 11, 2009.
- Johnson, F.A., 1972. USGS / SCWRC Report 4, A Reconnaissance of the Winyah Bay Estuarine Zone, South Carolina (Abstract). United States Geological Survey / South Carolina Water Resources Commission.
- South Carolina Department of Health and Environmental Control (SCDHEC) Hydrologic Unit 03040207-02. [http://www.scdhec.gov/environment/water/shed/pd\\_main.htm](http://www.scdhec.gov/environment/water/shed/pd_main.htm).

USGS, 1986. Kingtree, SC Quadrangle Map, 1:100,000 Scale.

USGS, 1990. Myrtle Beach, SC Quadrangle Map, 1:100,000 Scale.

USGS, 1986. Georgetown, SC Quadrangle Map, 1:100,000 Scale.



**Potential Impacts to the Shortnose Sturgeon (*Acipenser  
brevirostrum*)**

**Additional Information on Construction Methods**

## Tuhin Basu

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**From:** Frierson, Ed W [FriersonEW@dot.state.sc.us]  
**Sent:** Thursday, October 01, 2009 9:48 AM  
**To:** Sarah Heberling  
**Cc:** tkbasu@tbaengineering.com; Redfearn, Tyke; Belcher, Jeffery - FHWA  
**Subject:** RE: FW: Response to NOAA Questions  
**Attachments:** SKMBT\_C25309100109420.pdf

Sarah,  
Attached is a letter with the info you requested. Let me know if you need anything else.  
Ed

-----Original Message-----

From: Sarah Heberling [mailto:Sarah.Heberling@noaa.gov]  
Sent: Wednesday, September 30, 2009 2:20 PM  
To: Frierson, Ed W  
Subject: Re: FW: Response to NOAA Questions

Hi Ed --

I will not need the EA. As long as the project description is along the  
lines of the preferred alternative.

Thanks,  
Sarah

Frierson, Ed W wrote:

> Sarah,  
> I am working on getting you the info you requested. The EA is not yet  
> complete or approved by FHWA. We can send you a copy when completed if  
> you want.  
> Ed

>

> -----Original Message-----

> From: Sarah Heberling [mailto:Sarah.Heberling@noaa.gov]  
> Sent: Wednesday, September 23, 2009 3:11 PM  
> To: Frierson, Ed W  
> Subject: Re: FW: Response to NOAA Questions

>

> Hi Ed --

>

> The consultation for the US 701 project is moving toward the finish  
> line; however, I need a complete description of the bridge demo and  
> reconstruction. Additionally, if an EA or EIS was drafted for this  
> project, sending that document along would be helpful.

>

> Thank you for your patience!

> Sarah

>

> --

> Sarah E. Heberling  
> NOAA Fisheries Service  
> Phone: (727) 824-5312  
> Fax: (727) 824-5309



>>  
>> McLean, Virginia 22102  
>>  
>> Direct: 703 447 0082  
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>> Tel: 703 918 9870 Ext 101  
>>  
>> Fax:703 918 9878  
>>  
>>  
>  
>



South Carolina  
Department of Transportation

October 1, 2009

Ms. Sarah Heberling  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
Southeast Region  
263 13<sup>th</sup> Avenue South  
Saint Petersburg, Florida 33701

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Great Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688  
Additional Information for Avoidance of Construction Impacts to Shortnose  
Sturgeon**

Dear Ms. Heberling:

The South Carolina Department of Transportation (SCDOT) is pleased to provide the additional information you requested in your email dated September 23, 2009. Specifically, you requested a complete description of the bridge demolition and reconstruction. The US 701 Bridge Replacement project consists of the replacement and realignment of an approximately two-mile long section of US 701 located in Georgetown and Horry Counties. The project would involve replacing the three existing bridges over Yauhannah Lake, the Great Pee Dee River, and the Great Pee Dee River overflow, respectively. The existing bridges were built in the early 1950s replacing the older bridges constructed circa 1920. The existing bridges have been inspected by the Department and have been rated structurally deficient and are in need of replacement for public safety reasons. New roadway approaches will also be necessary. The new facilities will be built adjacent and parallel to the existing alignment while traffic will be uninterrupted on the existing US 701 structures. Once the traffic is placed on the new facilities, the existing bridges will be removed. The abandoned concrete piers from the previous bridge will also be removed under this contract.

The construction of the new bridge piers in water will consist of concrete substructure units supported on concrete drilled shafts. In-water construction activities would be limited to the construction of the concrete drilled shafts. Construction of drilled shafts in water will consist of the installation of cylindrical steel casings to a specific depth below the stream bottom and then removal of the soil from within the steel casings. Reinforcing steel cages will then be lowered inside the casings, and concrete will be placed to fill the casings.

SCDOT's Standard Specifications for Highway Construction stipulates that unless otherwise directed, the substructures of existing structures shall be removed down to the natural stream bottom. Demolition of existing bridge elements usually consists of blasting or other operations, such as the use of mechanical demolition equipment to break up the concrete substructure elements. After the substructure is broken up by the above mentioned procedures, the pieces may then be retrieved from the stream and disposed off in an appropriate manner. Before blasting in any stream, river or lake, the Contractor shall coordinate all



plans and operations with the local South Carolina Department of Natural Resources District Fisheries Biologist and District Law Enforcement Captain.

SCDOT will stipulate in its agreement with the contractor and its subcontractors for this project certain conditions on construction and demolition activities that could potentially disturb migrating shortnose sturgeon near the project. The conditions include the following:

- A seasonal construction moratorium for all in-water work related to this project will be implemented for the period of January 1 through April 15;
- Work will not impede more than 50% of the channel during the months of January through April; and,
- Best Management Practices will be used outside of the moratorium periods.

The contractor will be required to perform all work in accordance with SCDOT's Standard Specifications for Highway Construction, but will be encouraged to present innovative ideas for alternative construction techniques that may decrease impacts on the environment and the terrestrial and aquatic wildlife, as well as on the construction costs and duration. However, any alternative construction techniques must be approved by SCDOT and other appropriate agencies.

We believe the above information will be useful to you, and we appreciate your willingness to work with SCDOT for the consultation. Please do not hesitate to contact me if you require any additional information.

Sincerely,



Edward W. Frierson  
Environmental Project Manager

CC: Tyke Redfearn, SCDOT  
Shane Belcher, FHWA  
Tuhin Basu, Tuhin Basu & Associates, Inc.

File: Environmental





UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Southeast Regional Office  
263 13<sup>th</sup> Avenue South  
St. Petersburg, FL 33701  
(727) 824-5312 FAX 824-5309  
<http://sero.nmfs.noaa.gov>

OCT 29 2009

F/SER31:SEH

Mr. Edward Frierson  
Environmental Project Manager  
South Carolina Department of Transportation (SC DOT)  
P.O. Box 191  
Columbia, SC 29202-0191

Dear Mr. Frierson:

This responds to your May 22, 2009, letter, regarding impacts to federally-listed species from the construction and demolition associated with three bridge replacement projects in South Carolina. Specifically, the proposed bridge replacements are for US 701 over the Great Pee Dee River, Pee Dee Overflow, and Yauhannah Lake in Horry and Georgetown Counties. This consultation is being conducted with the SC DOT as the non-federal representative designated by the Federal Highways Administration, South Carolina Division (letter dated March 1, 2004), pursuant to 50 CFR 402.08. You requested concurrence from the National Marine Fisheries Service (NMFS), pursuant to section 7 of the Endangered Species Act (ESA), with your determination the project may affect but is not likely to adversely affect shortnose sturgeon (*Acipenser brevirostrum*). NMFS requested additional information via e-mail on June 11, 2009, and again on July 28, 2009. SC DOT provided a response via e-mail on August 19, 2009. NMFS requested additional project details via e-mail on September 23, 2009, and a response was received via e-mail on October 1, 2009. NMFS' determinations regarding the effects of the proposed action are based on the description of the action in this informal consultation. You are reminded that any changes to the proposed action may negate the findings of the present consultation and may require reinitiation of consultation with NMFS.

The proposed project consists of the replacement and realignment of an approximately 2-mile-long section of US 701. Three existing bridges, which were built in the early 1950s, were inspected by SC DOT and rated structurally deficient. The construction of new roadway approaches also will be necessary. The new structures will be built adjacent and parallel to the existing ones. The new in-water bridge piers will consist of concrete substructure units supported on concrete drilled shafts. In-water construction activities will be limited to construction of the concrete drilled shafts. Construction of drilled shafts in water typically consists of the installation of a steel casing (cylindrical in shape) to a specific depth below the stream bottom and then drilling out the soil within the casing and usually to some depth below the bottom of the casing. Reinforcing steel cages then will be lowered inside the casings, and concrete will be placed to fill the casings. Often, some sort of drilling fluid is required to





maintain the stability of the excavation's sidewalls prior to the placement of concrete. All drilling spoils and drilling fluid are disposed of in an EPA-approved manner.

Once road traffic is diverted to the new structures, the existing bridges will be removed, including the abandoned concrete piers. SC DOT standard specifications require the removal of existing structures down to the natural stream bottom, unless otherwise directed. Demolition of the existing bridge elements usually consists of blasting or other operations such as the use of mechanical demolition equipment to break up the concrete substructure elements. After the substructure is broken up, the pieces will be retrieved and disposed of in an appropriate manner. Before blasting in any stream, river, or lake, the contractor will coordinate all plans and operations with the local South Carolina Division of Natural Resources (SCDNR) District Fisheries biologist, and with the District Law Enforcement Captain.

The SC DOT has agreed to implement a seasonal moratorium for all in-water work (including blasting) between January and mid-April for the project and use applicable best management practices year-round in order to preserve water quality at the project site. Equipment and materials associated with the construction of the bridge may need to remain idle in the project area during the seasonal moratorium for all in-water work, but will not obstruct or impede passage through more than 50 percent of the channel.

The only ESA-listed species under NMFS' purview that may occur in the project area is the shortnose sturgeon. The shortnose sturgeon is a semi-anadromous fish species that inhabits coastal estuaries and rivers. Adults migrate upstream in early spring to spawn and forage in the lower reaches of rivers at the fresh tidal water and estuarine water interface. This interface is also an important nursery habitat area for juveniles, which typically do not migrate. Spawning takes place in the inland reaches of large tidal rivers in the spring and early summer, after which the adults return to salt or brackish coastal waters.

The proposed bridge replacement on US 701 will replace three structurally deficient bridges associated with the Great Pee Dee River, the Pee Dee Overflow, and Yauhanna Lake. However, only one of the three spans crosses over the Great Pee Dee River and suitable shortnose sturgeon habitat; one bridge crosses over floodplain; and one crosses a lake off the main river stem. The bridge span in question consists of 34 existing piers, 6 of which are in water. Four abandoned concrete piers from a previous bridge are adjacent to the existing bridge on the downstream side. Two of these piers are in the river and one is on each river bank. This bridge would be replaced on a slightly new alignment upstream of its present location, within 60 feet of the current footprint. Based on available mapping, the distance to the coast from the project location over the Great Pee Dee River, as the shortest straight line distance, is approximately 10.6 miles. However, the straight line distance from the project site to where the Great Pee Dee River enters Winyah Bay, which would be the first access to the Great Pee Dee River coming from the Atlantic Ocean, is approximately 21 miles, not accounting for river meanders. Under periods of very low river flow the freshwater saltwater interface may extend approximately 16 miles upstream from mile 0 of the Waccamaw and Pee Dee Rivers (at the upper reaches of Winyah Bay), but under average flow and tide conditions, the interface only penetrates to approximately

5 miles above this point near the US 17 bridge.<sup>1</sup> Additionally, the South Carolina Department of Health and Environmental Control (SCDHEC) water quality monitoring site PD-061 is located at the US 701 Bridge over the Great Pee Dee River (the project site). The river at this location is classified by SCDHEC as freshwater. The SCDHEC Hydrologic Unit Monitoring report for this area indicates that the next downstream monitoring station (MD-275) is located in the freshwater/saltwater mixing zone. This monitoring station is located approximately 4.5 miles upstream of the Pee Dee River entrance to Winyah Bay and approximately 16.5 miles downstream of the project site at US 701.<sup>2</sup> Based on this information, it appears that the freshwater/saltwater interface is located well downstream of the project site. The water depth in the Great Pee Dee River varies based on flow conditions; however, during a survey conducted in 2005, maximum depths were recorded as 22 feet on the north side of the bridge and 30 feet on the south side of the bridge. The maximum depth at the survey site in Yauhannah Lake was 14 feet.<sup>3</sup>

Telemetry studies by the SCDNR have confirmed one shortnose sturgeon spawning location in the Great Pee Dee River.<sup>4</sup> The site is located near Cashua Ferry and consists of emergent gravel bars, pebble to small cobble substrate, fast riffle currents, and a nearby deep channel area.<sup>5</sup> The project site does not appear to offer these conditions. Dr. Mark Collins, of the SCDNR Marine Resources Research Institute has indicated that shortnose sturgeon probably do not spawn at this location; however, they may aggregate here during spawning season and an awareness of the presence of the sturgeon in this area is warranted.<sup>6</sup> Therefore, there is a possibility that shortnose sturgeon may occur in this area of the Great Pee Dee River, which includes the area around the US 701 bridge.

NMFS has analyzed the potential routes of effect to shortnose sturgeon and concurs with the SCDOT's determination that they are not likely to be adversely affected by the proposed action. Because of bridge construction activities, shortnose sturgeon may avoid using the project area as a migratory pathway between seasonal habitats; however, this effect is discountable. During the time of year when shortnose sturgeon are likely to be migrating, SCDOT will implement a seasonal moratorium on all in-water construction activities. Shortnose sturgeon also may be affected by construction materials and equipment blocking the channel (a migratory pathway); however, this effect is insignificant. The SCDOT will restrict in-water bridge construction equipment and materials from impeding more than 50 percent of the channel during the seasonal moratorium. Maintaining at least 50 percent of the channel open in the project area will allow a pathway for fish to migrate upriver and spawn. Last, shortnose sturgeon may avoid the immediate area due to elevated noise; however, this effect is discountable. While in-water

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<sup>1</sup> Johnson F.A. 1972. USGS/SCWRC Report 4. A Reconnaissance of the Winyah Bay Estuarine Zone, South Carolina (Abstract). United States Geological Survey/South Carolina Water Resources Commission.

<sup>2</sup> South Carolina Department of Health and Environmental Control (SCDHEC) Hydrologic Unit 03040207-02. [http://www.scdhec.gov/environment/water/shed/pd\\_main.htm](http://www.scdhec.gov/environment/water/shed/pd_main.htm)

<sup>3</sup> Adams N.P. 2005. Phase I Cultural Resources Survey of the Proposed US Hwy 701 Bridge Improvements, Georgetown and Horry Counties, South Carolina. Submitted to ARM Environmental Services, Inc., June 2005.

<sup>4</sup> Alcoa Power Generating, Inc. 2006. Yadkin Hydroelectric Project, FERC No. 2197, License Application, Exhibit E.

<sup>5</sup> *Ibid.*

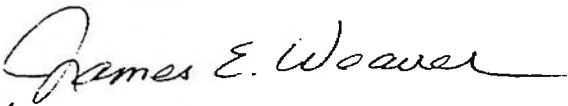
<sup>6</sup> Collins, Mark. SCDNR. 2005, 2009. Personal Communication to SCDOT.

construction activities outside of the spawning season may potentially affect shortnose sturgeon in the project area, it is highly improbable, as shortnose sturgeon are typically found well downstream of the US 701 bridge at or below the tidal interface outside of the spawning season. The US 701 bridge over the Great Pee Dee River exists above the tidal interface where adult and juvenile shortnose sturgeon may occur during the majority of the year; the vast majority of foraging habitat exists well below the bridge.

This concludes your consultation responsibilities under the ESA for species under NMFS' purview. Consultation must be reinitiated if a take occurs or new information reveals effects of the action not previously considered, or the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed or critical habitat designated that may be affected by the identified action.

We have enclosed additional information on other statutory requirements that may apply to this action, and on NMFS' Public Consultation Tracking System to allow you to track the status of ESA consultations. If you have any questions, please contact Sarah Heberling at (727) 824-5312 or by e-mail at Sarah.Heberling@noaa.gov. Thank you for your continued cooperation in the conservation of listed species.

Sincerely,

  
for Roy E. Crabtree, Ph.D.  
Regional Administrator

Enclosure

cc: FHA

File: 1514-22.L.3. SCDOT  
Ref: I/SER/2009/02821

**PCTS Access and Additional Considerations for ESA Section 7 Consultations  
(Revised 7-15-2009)**

**Public Consultation Tracking System (PCTS) Guidance:** PCTS is an online query system at <https://pcts.nmfs.noaa.gov/> that allows federal agencies and U.S. Army Corps of Engineers' (COE) permit applicants and their consultants to ascertain the status of NMFS' Endangered Species Act (ESA) and Essential Fish Habitat (EFH) consultations, conducted pursuant to ESA section 7, and Magnuson-Stevens Fishery Conservation and Management Act's (MSA) sections 305(b)(2) and 305(b)(4), respectively. Federal agencies are required to enter an agency-specific username and password to query the Federal Agency Site. The COE "Permit Site" (no password needed) allows COE permit applicants and consultants to check on the current status of Clean Water Act section 404 permit actions for which NMFS has conducted, or is in the process of conducting, an ESA or EFH consultation with the COE.

For COE-permitted projects, click on "Enter Corps Permit Site." From the "Choose Agency Subdivision (Required)" list, pick the appropriate COE district. At "Enter Agency Permit Number" type in the COE district identifier, hyphen, year, hyphen, number. The COE is in the processing of converting its permit application database to PCTS-compatible "ORM." An example permit number is: SAJ-2005-000001234-IPS-1. For the Jacksonville District, which has already converted to ORM, permit application numbers should be entered as SAJ (hyphen), followed by 4-digit year (hyphen), followed by permit application numeric identifier with no preceding zeros. For example: SAJ-2005-123; SAJ-2005-1234; SAJ-2005-12345.

For inquiries regarding applications processed by COE districts that have not yet made the conversion to ORM (e.g., Mobile District), enter the 9-digit numeric identifier, or convert the existing COE-assigned application number to 9 numeric digits by deleting all letters, hyphens, and commas; converting the year to 4-digit format (e.g., -04 to 2004); and adding additional zeros in front of the numeric identifier to make a total of 9 numeric digits. For example: AL05-982-F converts to 200500982; MS05-04401-A converts to 200504401. PCTS questions should be directed to Eric Hawk at [Eric.Hawk@noaa.gov](mailto:Eric.Hawk@noaa.gov). Requests for username and password should be directed to [PCTS.Usersupport@noaa.gov](mailto:PCTS.Usersupport@noaa.gov).

**EFH Recommendations:** In addition to its protected species/critical habitat consultation requirements with NMFS' Protected Resources Division pursuant to section 7 of the ESA, prior to proceeding with the proposed action the action agency must also consult with NMFS' Habitat Conservation Division (HCD) pursuant to the MSA requirements for EFH consultation (16 U.S.C. 1855 (b)(2) and 50 CFR 600.905-.930, subpart K). The action agency should also ensure that the applicant understands the ESA and EFH processes; that ESA and EFH consultations are separate, distinct, and guided by different statutes, goals, and time lines for responding to the action agency; and that the action agency will (and the applicant may) receive separate consultation correspondence on NMFS letterhead from HCD regarding their concerns and/or finalizing EFH consultation.

**Marine Mammal Protection Act (MMPA) Recommendations:** The ESA section 7 process does not authorize incidental takes of listed or non-listed marine mammals. If such takes may occur an incidental take authorization under MMPA section 101 (a)(5) is necessary. Please contact NMFS' Permits, Conservation, and Education Division at (301) 713-2322 for more information regarding MMPA permitting procedures.

**Coordination of Potential Impacts to the Atlantic Sturgeon**  
***(Acipenser oxyrinchus oxyrinchus)***





South Carolina  
Department of Transportation

September 24, 2012

Mr. David M. Bernhardt  
United States Department of Commerce  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
Southeast Regional Office  
Office of Protected Resources  
263 13<sup>th</sup> Avenue South  
St. Petersburg, FL 33701-5505

**RE: Endangered Species Act Section 7 Informal Consultation for Atlantic Sturgeon -  
Bridge Replacements on US 701 Over the Great Pee Dee River, Great Pee Dee River  
Overflow, and Yauhannah Lake in Horry and Georgetown Counties  
SCDOT PIN 30688**

Dear Mr. Bernhardt:

The South Carolina Department of Transportation (SCDOT) proposes the replacement of the three existing US 701 bridges over the Great Pee Dee River, Great Pee Dee River Overflow, and Yauhannah Lake located in Horry and Georgetown Counties. The purpose of the project is to replace the existing structurally deteriorated and functionally obsolete bridges. On May 22, 2009, pursuant to Section 7 of the Endangered Species Act (ESA), the South Carolina Department of Transportation requested informal consultation from the National Marine Fisheries Service (NMFS) regarding potential impacts to the shortnose sturgeon (*Acipenser brevirostrum*) associated with this proposed US 701 bridge replacement project. The NMFS offered concurrence of the SCDOT's determination that the project may affect, but is not likely to adversely affect, the endangered shortnose sturgeon; please see the attached letter from NMFS, received October 29, 2009. The SCDOT issued an Environmental Assessment (EA) document for this project in October 2009.

Subsequently, SCDOT got engaged in the process of delineating the legal property boundaries in the vicinity of this project, both in Horry and Georgetown Counties, and simultaneously investigating if any additional alignment alternatives would provide further benefits to the environment. It is anticipated that the preferred alternative will be located parallel and adjacent to the existing alignment either 55' downstream or 55' upstream from the existing alignment. At the conclusion of the study, SCDOT will issue a new revised EA.

Effective April 6, 2012, the NMFS issued a final determination to list two distinct population segments (DPS) of the Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) in the Southeast, including the South Atlantic DPS and the Carolina DPS. Therefore, at this time SCDOT is requesting informal consultation from your agency regarding the effect of the proposed action related to this project on the Atlantic sturgeon.

The Carolina DPS includes all Atlantic sturgeon that spawn in the watersheds (including all rivers and tributaries) from Albermarle Sound southward along the southern Virginia, North Carolina and South Carolina coastal areas to Charleston Harbor. The South Atlantic DPS includes all the Atlantic sturgeon that spawn in the watersheds of the ACE (Ashepoo, Combahee, and Edisto) Basin southward along the South Carolina, Georgia, and Florida coastal areas to the St. Johns River, Florida.



The Atlantic sturgeon is a long-lived, late-maturing, estuarine-dependent, anadromous species. Its coloration ranges from bluish-black and olive green on its back to white on its underside. Atlantic sturgeons are similar in appearance to shortnose sturgeons. Both have five rows of bony plates called "scutes". However, Atlantic sturgeons have two rows of prenatal shields, while the shortnose has only one. Atlantic sturgeon can be distinguished by their larger size, smaller mouth, different snout shape, and scutes. The basic life history for the two species, i.e., shortnose sturgeon and the Atlantic sturgeon, are very similar. Juvenile and adults of both species are benthic (or bottom) feeders, consuming a variety of crustaceans, bivalves, and worms. Both species begin spawning migrations to freshwater during late winter into early summer.

Aquatic surveys have not been conducted for Atlantic sturgeon within the project study area. Spawning has been confirmed in the Great Pee Dee River; however, quantified abundance estimates had not been obtained at the time of the Final Rule publication. Based on the SCDOT Geographic Database information of known populations and the literature review performed, it is determined that this project may affect, but is not likely to adversely affect, migratory pathways of the Atlantic sturgeon.

It is the Department's finding that the previous commitment made by SCDOT to benefit the shortnose sturgeon will also benefit the Atlantic sturgeon (see attached project location information and shortnose concurrence). In an effort to reduce potential impacts to Atlantic sturgeon, the SCDOT has decided to implement a seasonal construction moratorium for all in-water work related to this bridge replacement project for the period of January 1 through April 30. These dates coincide with the time of year Atlantic sturgeon are likely to be migrating. In addition, the SCDOT will restrict in-water bridge construction equipment and material from impeding more than fifty percent of the channel between January 1 and April 30. This restriction will allow the migratory pathway to remain open while Atlantic sturgeons are likely to be migrating.

SCDOT respectfully requests your concurrence with this determination.

Sincerely,



Edward W. Frierson  
NEPA Coordinator/Biologist

Enclosures

cc: Environmental Management Office  
Tuhin Basu and Assoc.  
Mr. Shane Belcher, FHWA



## Tuhin Basu

---

**From:** Frierson, Ed W [FriersonEW@dot.state.sc.us]  
**Sent:** Thursday, October 18, 2012 4:15 PM  
**To:** Phillips, Henry; tkbasu@tbaengineering.com  
**Cc:** Redfearn, Tyke; Belcher, Jeffery - FHWA  
**Subject:** FW: SC 31 and US 701 bridge Section 7 consultation reinitiation

This email should be attached to the Appendix of both of these NEPA documents.

**From:** Jason Rueter [mailto:jason.rueter@noaa.gov]  
**Sent:** Thursday, October 18, 2012 3:50 PM  
**To:** Frierson, Ed W  
**Subject:** SC 31 and US 701 bridge Section 7 consultation reinitiation

Mr. Frierson,  
We have reviewed your requests for Section 7 consultation reinitiation for the subject South Carolina Department of Transportation projects. SCDOT requested consultation due to modification of one project and the listing of Atlantic sturgeon for both projects. After reviewing the projects, we have determined there is no need to reinitiate. The SCDOT's proposed conservation measures for shortnose sturgeon and the effects analysis (may affect, but not likely to adversely affect) for the projects under previous consultations (I/SER/2009/03620 and I/SER/2009/02821) would be applicable to Atlantic sturgeon as well. If you have any questions, please contact me.  
Thank you,

--  
Jason Rueter  
Gulf Sturgeon Coordinator  
Protected Resources  
NOAA Fisheries SERO

"The good thing about science is that it's true whether or not you believe in it."

-Neil deGrasse Tyson

# **Farmland Conversion Impact Rating and Farmland Protection Policy Act**

**FARMLAND CONVERSION IMPACT RATING  
FOR CORRIDOR TYPE PROJECTS**

<b>PART I (To be completed by Federal Agency)</b>		3. Date of Land Evaluation Request	4. Sheet 1 of _____
1. Name of Project <b>US 701 Bridge Repl (Horry/Georgetown Cos.)</b>		5. Federal Agency Involved <b>FHWA</b>	
2. Type of Project <b>Highway/Bridge Replacement</b>		6. County and State <b>Horry/Georgetown Counties, SC</b>	
<b>PART II (To be completed by NRCS)</b>		1. Date Request Received by NRCS	2. Person Completing Form <b>Tuhin K. Basu</b>
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated   Average Farm Size	
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: _____ %		7. Amount of Farmland As Defined in FPPA Acres: _____ %
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System		10. Date Land Evaluation Returned by NRCS

<b>PART III (To be completed by Federal Agency)</b>	<b>Alternative Corridor For Segment</b>			
	<b>Corridor A</b>	<b>Corridor B</b>	<b>Corridor C</b>	<b>Corridor D</b>
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	<b>0</b>			

<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				

<b>PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)</b>	<b>100</b>			
--	------------	--	--	--

<b>PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))</b>	<b>Maximum Points</b>				
1. Area in Nonurban Use	15	15			
2. Perimeter in Nonurban Use	10	10			
3. Percent Of Corridor Being Farmed	20	7			
4. Protection Provided By State And Local Government	20	0			
5. Size of Present Farm Unit Compared To Average	10	10			
6. Creation Of Nonfarmable Farmland	25	0			
7. Availability Of Farm Support Services	5	5			
8. On-Farm Investments	20	0			
9. Effects Of Conversion On Farm Support Services	25	0			
10. Compatibility With Existing Agricultural Use	10	0			
<b>TOTAL CORRIDOR ASSESSMENT POINTS</b>	<b>160</b>	<b>47</b>	<b>0</b>	<b>0</b>	<b>0</b>

<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)	100	100	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment)	160	47	0	0	0
<b>TOTAL POINTS (Total of above 2 lines)</b>	<b>260</b>	<b>147</b>	<b>0</b>	<b>0</b>	<b>0</b>

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>
-----------------------	---	-----------------------	--

5. Reason For Selection:

Signature of Person Completing this Part: Tuhin K. Basu Date: April 20, 2013

NOTE: Complete a form for each segment with more than one Alternate Corridor

April 22, 1996

Mr. Kenneth R. Myers  
Planning and Environmental Engineer  
Federal Highway Administration  
1835 Assembly Street  
Suite 758  
Columbia, SC 29201

Dear Mr. Myers:

RE: Compliance with the Farmland Protection Policy Act

The procedures by which the Department complies with the Farmland Protection Policy Act (FPPA) for all federal aid highway projects are labor intensive and often delay processing of the environmental document. In view of information contained in the attached letter, it appears that this process could be streamlined.

If the Department determines that the site assessment criteria (Part VI of SCS-CPA-106) score is less than 60 points, an additional assessment by the district office of the Soil Conservation Service would be unnecessary because the total score would always be less than 160. Therefore, where the site assessment is determined to be less than 60, the Department will complete Parts I, III, V (assign 100 points), and VI, and place the completed forms in the project file. In addition, the environmental document will summarize the steps taken to comply with the FPPA. No coordination with SCS would occur.

Should you have any further questions regarding this matter, please contact Mr. Mike Roberts at 737-1396.

Sincerely,

*/s/ Paul F. Embler*

Paul F. Embler  
Environmental Program Administrator

Attachment

MAR/sfb

cc: EQM Davis  
✓EQM Frierson  
EQM Hunter  
EQM Laffoday

February 26, 1985

HA-SC

Mr. Herman P. Snyder  
State Highway Engineer  
South Carolina Department of Highways  
and Public Transportation  
955 Park Street, P. O. Box 955  
Columbia, South Carolina 29202

Dear Mr. Snyder:

Subject: Farmland Protection Policy Act

We have received additional guidance regarding the implementation of the subject Act. The information provided herein will supplement the guidance material forwarded to you under our letter of 1/23/85.

The Soil Conservation Service's (SCS) regulation implementing the Farmland Protection Act (FPPA) requires the SCS to provide a complete response to Form AD 1006 within 45 calendar days of its receipt. Where the SCS fails to provide the necessary information or no information at all within 45 days, the proposed project can proceed as though the FPPA requirements did not apply. However, in these cases it is still necessary to consider impacts to farmland in order to comply with NEPA requirements. The project environmental document should identify the farmland impacts and mitigation measures and summarize the coordination undertaken with the SCS. The environmental document should also include a statement that (1) the SCS failed to provide the land evaluation information within 45 days, and (2) therefore, in accordance with the SCS regulation (CFR 658.4(a)), the FPPA does not apply.

The SCS has agreed as an alternate to forwarding a Form AD 1006 on all projects where only those where the site assessment criteria (Part VI) score is more than 60 points for each project alternative need to be submitted. The rationale is based on its regulation (7 CFR 658.4(c)(2)) which provides that "Sites receiving a total score of less than 160 points be

-more-

given a minimal level of consideration for protection and no additional sites be evaluated." The maximum score that can be assigned to the land evaluation (Part V) is 100 points. Therefore, where the site assessment (Part VI) is less than 60 points, the total score (Parts V and VI) would always be less than 160 points. The SCS agrees that where all project alternatives are scored less than 160 points there is little or no benefit to be derived from submitting Form AD 1006 to its field offices for coordination. To document compliance with the SCS regulation, the Department need only complete Parts I, III, V (assign 100 points), and VI and place the completed form in the project files. The project environmental document should summarize the steps taken to identify and evaluate farmland impacts and comply with the FPAA.

We will continue to keep the Department apprised of any further clarification of existing guidelines or new guidelines developed for implementing this new program as it is received. If you should have any comments and/or questions regarding the above information, please feel free to call on us.

Sincerely yours,

B. G. Cloyd  
Division Administrator

/s/ Arthur A. Fendrick  
By Arthur A. Fendrick  
Assistant Division Administrator

# **USCG Bridge Permit Requirements**



U.S. Department of  
Homeland Security

United States  
Coast Guard



Commandant  
United States Coast Guard

2100 Second Street, S.W.  
Washington, DC 20593-0001  
Staff Symbol: G-OPT  
Phone: (202) 267-0368  
Fax: (202) 267-4046

16591  
January 4, 2005

Tuhin Basu & Associates, Inc.  
Attn: Mr. Tuhin K. Basu, PE  
7921 Jones Branch Drive  
Suite 545  
McLean, VA 22102

Dear Mr. Basu:

This is in reply to your letter dated December 17, 2004 to Ms. Kebby Kelley of the U. S. Coast Guard Environmental Management Division, Washington, DC regarding the replacement of the U. S. 701 bridges over the Great Pee Dee River, the Pee Dee Overflow and Lake Yauhannah in Horry/Georgetown Counties, South Carolina. The Coast Guard's jurisdiction with this project is limited to any associated bridge work across navigable waters of the United States. We are forwarding your letter to our Seventh Coast Guard District Bridge Office in Miami, Florida, under whose cognizance this project would fall. The district office will be able to determine if your project falls under our jurisdiction and whether it will require a Coast Guard Bridge Permit. If a permit is required, they will be able to assist you in filing an application for a permit. They will also be your point of contact for any associated environmental issues surrounding the development of an environmental assessment.

Sincerely,

A handwritten signature in dark ink that reads "Frank A. Martin, Jr." with a stylized flourish at the end.

FRANK A. MARTIN, JR.  
Chief, Bridge Permits Division  
Office of Bridge Administration  
U. S. Coast Guard

Copy: D-7 (obr) with incoming letter

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commander  
Seventh Coast Guard District

909 SE 1<sup>st</sup> Avenue Suite 432  
Miami, FL 33131-3050  
Staff Symbol: (obr)  
Phone: (305) 415-6747  
Fax: (305) 415-6763  
Email: wtate@d7.uscg.mil

16591  
January 26, 2005

Mr. Tuhin K. Basu, PE  
Project Manager  
Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, VA 22102

Dear Mr. Basu:

I am responding to your letter of December 30, 2004 regarding the replacement of U.S. Route 701 bridges over Great Pee Dee River, Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC.

My examination indicates that this site is a federal project channel, and a formal Coast Guard permit will be required for the proposed bridge replacement project. However, if this project is federally funded, then the Federal Highway Administration (FHA), as outlined in 23 CFR 650.805, a copy of which is enclosed, has the responsibility to determine if a USCG permit is required. I've also enclosed a copy of a locality map indicating the federal project channel.

If federal funds are not utilized in this roadway/bridge project, then a Coast guard bridge permit is required for the project. The Coast Guard Bridge Permit Application Guide is available at <http://www.uscg.mil/hq/g-o/g-opt/g-opt.htm>. Please submit the permit application as outlined with original 8 1/2" X 11" permit plans showing the project vicinity, and existing and proposed bridge structures, in plan and elevation views.

If you have any questions regarding this matter, please call Mr. Gwin Tate at (305) 415-6747.

Sincerely,

A handwritten signature in dark ink, appearing to read "W. Gwin Tate III".

W. GWIN TATE III  
Associate Bridge Management Specialist  
U.S. Coast Guard  
By direction

Enclosures



South Carolina  
Department of Transportation

September 28, 2009

J. Kenneth Johnson  
Federal Highway Administration  
1835 Assembly Street, Suite 1270  
Columbia, South Carolina 29201

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Great Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mr. Johnson:

The South Carolina Department of Transportation (SCDOT) is currently preparing an Environmental Assessment (EA) for the above referenced project and this letter is to formally request a determination regarding the requirement for a USCG permit for the proposed replacement bridge over the Great Pee Dee River in accordance with the 23 CFR 650 regulations.

The purpose of the project is to replace three structurally deficient and/or functionally obsolete bridges along a 2-mile segment of US 701 that begins near the US Route 701 / Trinity Road intersection in Georgetown County and extends to the US Route 701 / Lucas Bay Road intersection in Horry County. The bridges to be replaced are over Lake Yauhannah, the Great Pee Dee River and the Great Pee Dee River Overflow. The new replacement structures will be positioned on a new roadway alignment in order to avoid the considerable detour length that would result from closing the existing roadway and constructing the new bridges on the existing US Route 701 alignment. As part of the environmental assessment process, several conceptual alternative alignments were evaluated and we have recommended placing the new US 701 on a parallel alignment downstream from the existing US 701 alignment.

As detailed on the attached schematic, the following are the navigational specifics associated with proposed replacement bridge over the Great Pee Dee River:

Minimum Vertical Clearance =	38.5 feet (Above MLW)
Minimum Horizontal Clearance =	115 feet
Low Tide Water Depth =	16.5 feet

The new replacement bridge will provide clearances generally equal to or greater than the clearances provided by the existing US 701 bridges.



We appreciate your assistance and willingness to work with the SCDOT on this project. Should you have any questions or require additional information, please do not hesitate to contact me at 803-737-1430.

Sincerely,

A handwritten signature in black ink, appearing to read 'W. Redfearn III', with a long horizontal flourish extending to the right.

William "Tyke" Redfearn III, E.I.T.  
Assistant Program Manager

Enclosure

CC: Shane Belcher, FHWA  
Bener Amado, P.E., SCDOT  
Ed Frierson, SCDOT  
Henry Phillips SCDOT  
Tuhin Basu, P.E., Tuhin Basu & Associates, Inc.  
File: PC/WTR

October 8, 2009



RADM Robert Branham  
Commander  
U.S. Coast Guard  
Brickell Plaza Federal Building  
909 SE 1<sup>st</sup> Avenue  
Miami, FL 33130-1608

Dear Commander Branham:

Subject: Replacement of U.S. 701 Bridges over Great Pee Dee River, Great Pee Dee River Overflow, and Lake Yauhannah – Georgetown and Horry Counties

The South Carolina Department of Transportation (SCDOT) is currently preparing an environmental assessment for a proposal to replace three existing bridges in Horry and Georgetown Counties. One is over the great Pee Dee River (see attachments 2, 3 and 6). One is a Great Pee Dee River Overflow bridge (see attachments 2, and 4). Lastly, one is over Lake Yauhannah (see attachments 2, 5 and 7).

Tidal waters associated with the project are located on the Great Pee Dee River and Lake Yauhannah; however, vessel traffic consists of small recreational craft only and no commercial traffic. The minimum vertical clearance, for the Great Pee Dee River is 38.5 feet (see sheet 6), which has not changed. The minimum vertical clearance for Lake Yauhannah is 17'-0". In accordance with CFR 23, 650.807, we have determined that a USCG bridge permit is not required for this project. Please advise in writing by November 8, 2009, if you disagree with our findings. Thank you for your cooperation.

Sincerely yours,

(for) Robert L. Lee  
Division Administrator

Enclosures  
cc: File – 22.124B, State, Reading File, Belcher, Travis  
My Documents: Great Pee Dee

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commander  
Seventh Coast Guard District

909 S. E. First Avenue  
Miami, FL 33131  
Staff Symbol: (dpb)  
Phone: (305) 415-6989  
Fax: (305) 415-6763  
Email: evelyn.smart@uscg.mil

SW

File  
22-124B

Ken ~~W~~ PARRICK AL

Shane SB

16211/SC

RECEIVED  
Federal Highway Administration  
Serial: 1840  
December 4, 2009

Mr. Robert L. Lee  
Division Administrator  
1935 Assembly Street, Ste. 1270  
Columbia, SC 29201

DEC 11 2009

DIVISION OFFICE  
COLUMBIA S.C.

Dear Mr. Lee:

We have received your letter regarding the replacement of the U.S. 701 Bridges across the Great Pee Dee River, Great Pee Dee River Overflow and Lake Yauhannah at Georgetown and Horry Counties, South Carolina.

Your letter dated October 8, 2009 states that the proposed projects fall under 23 CFR Part 650, Subpart H, section 650.807 which exempts you from obtaining a formal Coast Guard bridge permits. We do not concur with your determination that a bridge permit is not required for the proposed project across the Great Pee Dee River. Our research and examination indicates that Great Pee Dee River is navigated by vessels greater than 21 feet in length up and downstream of the proposed bridge site. The proposed project will require approval of the proposed location and plan through issuance of a Coast Guard Bridge Permit. Enclosed please find the Bridge Permit Application Guide for your guidance while preparing the application.

We concur with your determination that USCG bridge permits are not required for the U. S. 701 Bridges across the Great Pee Dee River Overflow and Lake Yauhannah. Coast Guard permits are not required for any highway bridges constructed with funds authorized by FHWA and over waters which: are non-tidal; not used or not susceptible for use in their natural conditions or by reasonable improvement as a means to transport interstate or foreign commerce; or if tidal, used only by vessels less than 21 feet in length (23 CFR Part 650, Subpart H, section 650.805).

Although no Coast Guard bridge permits will be required, other areas of jurisdiction apply. The following stipulations must be met:

- a. Timely notice of any and all events that may affect navigation shall be given to the District Commander during construction of the bridge project.
- b. Upon completion of design and finalization of the location, this office shall be contacted regarding approval of lights and other signals that may be required under 33 CFR 118. Approval of said lighting or waiver shall be obtained prior to construction.

c. Upon completion of construction, the bridge owner shall submit "as built" drawings (8 1/2 X 11") showing clearances through the bridges and sufficient data to permit this office to prepare a completion report. This report is used for Coast Guard and other mariner publications.

If you have any questions regarding our determination or the preparation of the permit application feel free to call me at (305) 415-6989.

Sincerely,

A handwritten signature in cursive script that reads "Evelyn Smart".

EVELYN SMART  
Environmental Protection Specialist  
Bridge Administration Branch  
Seventh Coast Guard District  
By direction of the District Commander

Encl: Bridge Permit Application Guide

Copy: BMC Barry S. Pierce, USCG ANT Georgetown



## **Jurisdictional Determination Approval**



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
CHARLESTON DISTRICT, CORPS OF ENGINEERS  
69A HAGOOD AVENUE  
CHARLESTON, SOUTH CAROLINA 29403-5107

January 7, 2010

Regulatory Division

Mr. Randall Williamson  
SC Department of Transportation  
Post Office Box 191  
Columbia, South Carolina 29202

Re: SAC 2009-01107-DJE  
Georgetown & Horry Counties

Dear Mr. Williamson:

This is in response to a letter of September 21, 2009 from Richard Ciccolella with ARM Environmental Services, requesting a wetland determination for tract of land approximately 2 miles long and 300 feet wide, located along Highway 701 in both Georgetown and Horry Counties, South Carolina. The project area is depicted on the enclosed sketch entitled "Wetlands Determination Plan" and dated April 22, 2005.

You have requested that this office delineate the wetlands or other waters of the United States within the regulatory authority of this office. Based on an on-site inspection, a review of aerial photography, topographic maps, National Wetland Inventory maps and soil survey information, it has been concluded that the boundaries shown on the referenced sketches (Sheet No 1 & 2) are a reasonable approximation of the location and boundaries of the wetlands found on this site. The property in question contains approximately 38.8 acres of federally defined freshwater wetlands or other waters of the United States subject to the jurisdiction of this office. However, you are cautioned that this delineation is approximate, subject to change, and should be used for planning purposes only. This office should be contacted prior to performing any work in or around these approximated wetlands or other waters of the United States. In order for a more accurate delineation to be provided, these areas should be located and marked on-site, and surveyed and platted on a map (in order for the wetland line to be reproduced in the future based solely on the platted map). Upon receipt of such a plat, this office can then issue a letter verifying the accuracy of the actual jurisdictional boundaries. You should also be aware that the areas identified as wetlands or other waters of the United States may be subject to restrictions or requirements of other state or local government entities.

Please note that the actual boundary of wetlands is approximate and, therefore, is subject to change and not appealable; however, the determination of jurisdiction over these wetlands is final and this approved jurisdictional determination is an appealable action under the Corps of Engineers administrative appeal procedures defined at 33 CFR 331. The administrative appeal options, process and appeals request form is attached for your convenience and use. If a permit application is forthcoming as a result of this delineation, a copy of this letter, as well as the verified sketch should be submitted as part of the application. Otherwise, a delay could occur in confirming that a delineation was performed for the permit project area.

Please be advised that this determination is valid for five (5) years from the date of this letter unless new information warrants revision of the delineation before the expiration date. All

actions concerning this determination must be complete within this time frame, or an additional determination and delineation must be conducted.

In future correspondence concerning this matter, please refer to SAC 2009-01107-DJE. You may still need state or local assent. Prior to performing any work, you should contact the South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management. A copy of this letter is being forwarded to them for their information.

If you have any questions concerning this matter, please contact Elizabeth Williams at 843-329-8044 or toll free at 1-866-329-8187.

Sincerely,

A handwritten signature in black ink, appearing to read 'Travis Hughes', with a horizontal line above it.

Travis Hughes  
Chief, Special Projects Branch

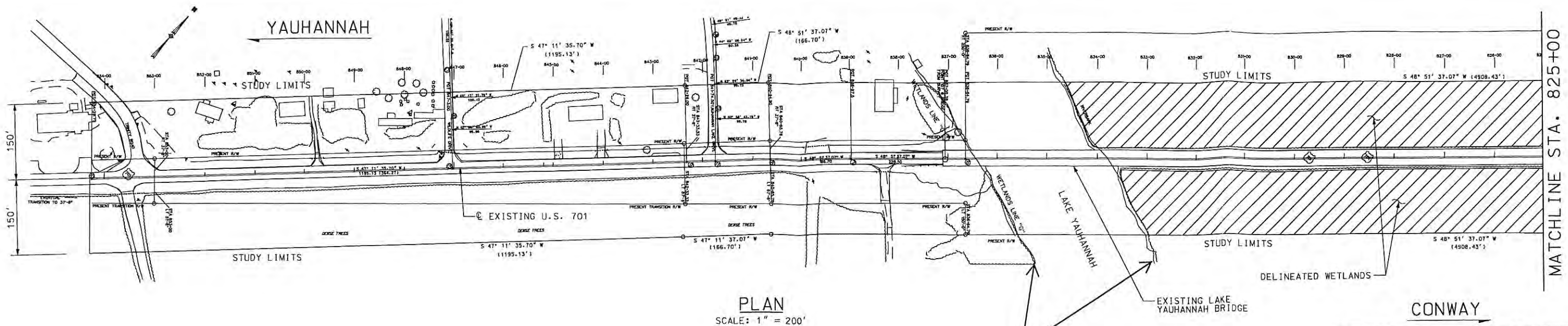
Enclosures:

Approved Jurisdictional Determination Form  
Notification of Appeal Options

Copy Furnished:

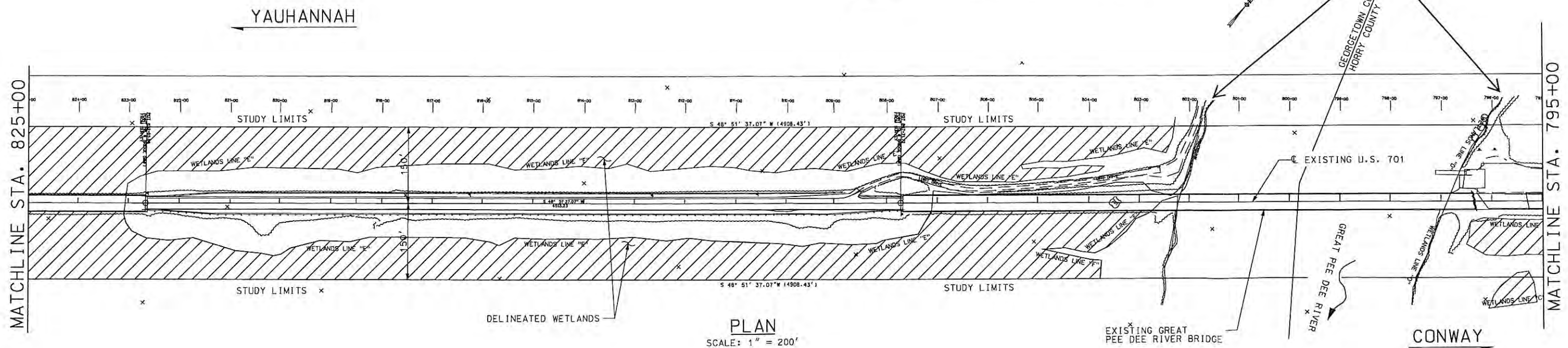
South Carolina Department of Health  
and Environmental Control Office of  
Ocean and Coastal Resource Management  
1362 McMillan Avenue, Suite 400  
Charleston, South Carolina 29405

Mr. Richard Ciccolella  
ARM Environmental Services, Inc.  
1210 First Street South Ext.  
Columbia, South Carolina 29209



Yauhannah Lake - Waterway Area  
Within Project Study Area = 1.6  
Acres

Great Pee Dee River - Waterway  
Area Within Project Study Area =  
3.5 Acres



## WETLANDS DETERMINATION PLAN

Total Wetland Acreage Within Project Study Area = 33.7 Acres

Great Pee Dee River - Waterway Area Within  
Project Study Area = 3.5 Acres

Yauhannah Lake - Waterway Area Within  
Project Study Area = 1.6 Acres

Cowford Lake - Waterway  
Area Within Project Study  
Area = 0 Acres

τβα

TUHIN BASU & ASSOCIATES, INC.

**SCDOT**

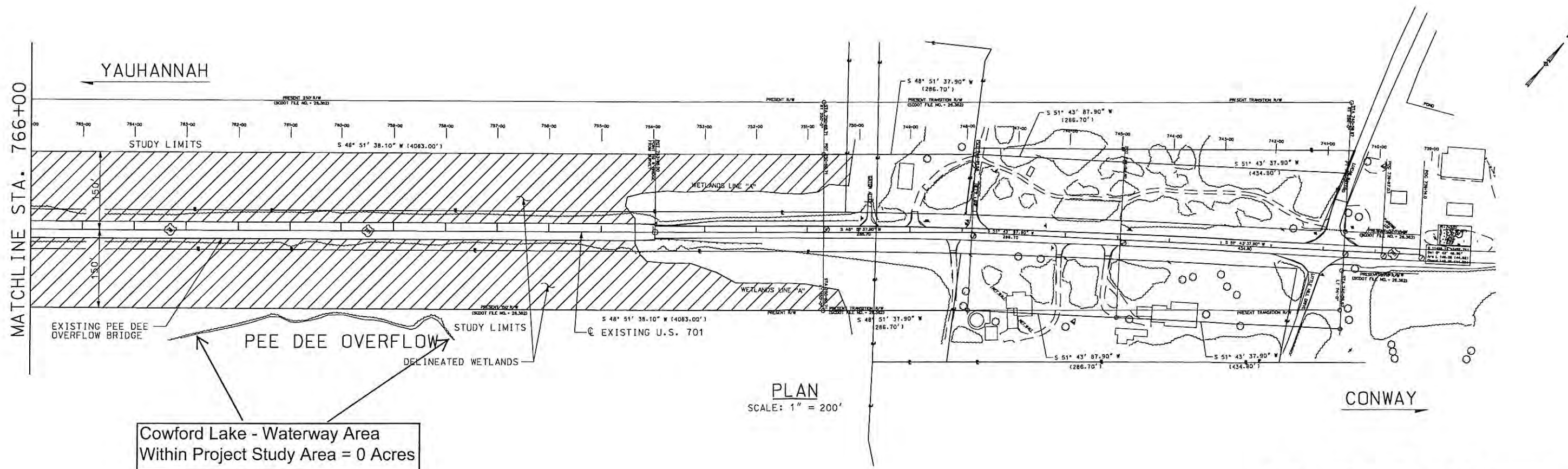
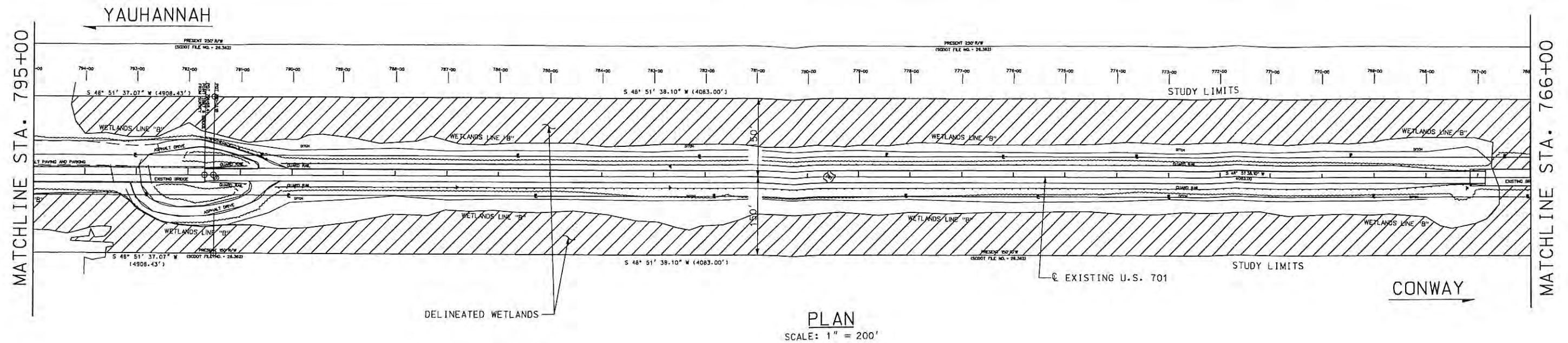
REPLACEMENT OF US 701 BRIDGES OVER  
GREAT PEE DEE RIVER, PEE DEE OVERFLOW  
& YAUHANNAH LAKE

HORRY/GEORGETOWN COUNTIES, SC

WETLANDS SURVEYED  
BY B.P. BARBER & ASSOCIATES, INC.  
APRIL 22, 2005

JAN 6 2010





## WETLANDS DETERMINATION PLAN

WETLANDS SURVEYED  
BY B.P. BARBER & ASSOCIATES, INC.  
APRIL 22, 2005

JAN \_ 6 2010

**τβα**

TUHIN BASU & ASSOCIATES, INC.

**SCDOT**

REPLACEMENT OF US 701 BRIDGES OVER  
GREAT PEE DEE RIVER, PEE DEE OVERFLOW  
& LAKE YAUHANNAH

HORRY/GEORGETOWN COUNTIES, SC

**APPROVED JURISDICTIONAL DETERMINATION FORM**  
**U.S. Army Corps of Engineers**

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER: SAC, 701 Bridge Replacement, 2009-01107-DJE**

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: SC County/parish/borough: Georgetown City:

Center coordinates of site (lat/long in degree decimal format): Lat. 33.65763° N, Long. 79.15896° E.

Universal Transverse Mercator:

Name of nearest waterbody: Great Pee Dee

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Great Pee Dee

Name of watershed or Hydrologic Unit Code (HUC): 03040207-02

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

☐ Office (Desk) Determination. Date:

☒ Field Determination. Date(s): 10-22-09

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION.**

There **Are** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☒ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.  
Explain:

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION.**

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

**1. Waters of the U.S.**

**a. Indicate presence of waters of U.S. in review area (check all that apply):<sup>1</sup>**

- ☒ TNWs, including territorial seas
- ☒ Wetlands adjacent to TNWs
- ☐ Relatively permanent waters<sup>2</sup> (RPWs) that flow directly or indirectly into TNWs
- ☐ Non-RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- ☐ Impoundments of jurisdictional waters
- ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

**b. Identify (estimate) size of waters of the U.S. in the review area:**

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: acres.

**c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual & OHWM**

Elevation of established OHWM (if known):

**2. Non-regulated waters/wetlands (check if applicable):<sup>3</sup>**

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.  
Explain:

<sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

<sup>2</sup> For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

<sup>3</sup> Supporting documentation is presented in Section III.F.

### SECTION III: CWA ANALYSIS

#### A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

##### 1. TNW

Identify TNW: **Great Pee Dee River, Yauhanna Lake.**

Summarize rationale supporting determination: Lake Yauhanna consists of navigable tributaries draining into the Great Pee Dee River which is a navigable water also.

##### 2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”: The wetlands in the project area are floodplains and overflow for the Great Pee Dee River and as such are hydrologically connected. They share the same limits of jurisdiction and have contiguous flow.

#### B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody<sup>4</sup> is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

##### 1. Characteristics of non-TNWs that flow directly or indirectly into TNW

###### (i) General Area Conditions:

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: inches

Average annual snowfall: inches

###### (ii) Physical Characteristics:

###### (a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain:

<sup>4</sup> Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.



Identify flow route to TNW<sup>5</sup>:  
Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply):

**Tributary is:** ☐ Natural  
☐ Artificial (man-made). Explain:  
☐ Manipulated (man-altered). Explain:

**Tributary properties with respect to top of bank (estimate):**

Average width: feet  
Average depth: feet  
Average side slopes: **Pick List**.

**Primary tributary substrate composition (check all that apply):**

<input type="checkbox"/> Silts	<input type="checkbox"/> Sands	<input type="checkbox"/> Concrete
<input type="checkbox"/> Cobbles	<input type="checkbox"/> Gravel	<input type="checkbox"/> Muck
<input type="checkbox"/> Bedrock	<input type="checkbox"/> Vegetation. Type/% cover:	
<input type="checkbox"/> Other. Explain:		

**Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:**

**Presence of run/riffle/pool complexes. Explain:**

**Tributary geometry: Pick List**

**Tributary gradient (approximate average slope):** %

(c) Flow:

**Tributary provides for: Pick List**

**Estimate average number of flow events in review area/year: Pick List**

Describe flow regime:

Other information on duration and volume:

**Surface flow is: Pick List. Characteristics:**

**Subsurface flow: Pick List. Explain findings:**

☐ Dye (or other) test performed:

**Tributary has (check all that apply):**

<input type="checkbox"/> Bed and banks	
<input type="checkbox"/> OHWM <sup>6</sup> (check all indicators that apply):	
<input type="checkbox"/> clear, natural line impressed on the bank	<input type="checkbox"/> the presence of litter and debris
<input type="checkbox"/> changes in the character of soil	<input type="checkbox"/> destruction of terrestrial vegetation
<input type="checkbox"/> shelving	<input type="checkbox"/> the presence of wrack line
<input type="checkbox"/> vegetation matted down, bent, or absent	<input type="checkbox"/> sediment sorting
<input type="checkbox"/> leaf litter disturbed or washed away	<input type="checkbox"/> scour
<input type="checkbox"/> sediment deposition	<input type="checkbox"/> multiple observed or predicted flow events
<input type="checkbox"/> water staining	<input type="checkbox"/> abrupt change in plant community
<input type="checkbox"/> other (list):	
<input type="checkbox"/> Discontinuous OHWM. <sup>7</sup> Explain:	

**If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):**

<input type="checkbox"/> High Tide Line indicated by:	<input type="checkbox"/> Mean High Water Mark indicated by:
<input type="checkbox"/> oil or scum line along shore objects	<input type="checkbox"/> survey to available datum;
<input type="checkbox"/> fine shell or debris deposits (foreshore)	<input type="checkbox"/> physical markings;
<input type="checkbox"/> physical markings/characteristics	<input type="checkbox"/> vegetation lines/changes in vegetation types.
<input type="checkbox"/> tidal gauges	
<input type="checkbox"/> other (list):	

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Identify specific pollutants, if known:

<sup>5</sup> Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

<sup>6</sup> A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

<sup>7</sup> Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width):
- ☐ Wetland fringe. Characteristics:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size:        acres

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain:

Surface flow is: **Pick List**

Characteristics:

Subsurface flow: **Pick List**. Explain findings:

☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain:

☐ Ecological connection. Explain:

☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☐ Riparian buffer. Characteristics (type, average width):
- ☐ Vegetation type/percent cover. Explain:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately (        ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

### C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

### D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

☒ TNWs: linear feet width (ft), Or, acres.

☒ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**

☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:

☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).  
☐ Other non-wetland waters: acres.  
Identify type(s) of waters: .

3. **Non-RPWs<sup>8</sup> that flow directly or indirectly into TNWs.**

- ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).  
☐ Other non-wetland waters: acres.  
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.  
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .  
☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.<sup>9</sup>**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or  
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or  
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. **ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):<sup>10</sup>**

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.  
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.  
☐ which are or could be used for industrial purposes by industries in interstate commerce.  
☐ Interstate isolated waters. Explain: .  
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

<sup>8</sup>See Footnote # 3.

<sup>9</sup>To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

<sup>10</sup>Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.  
Identify type(s) of waters: .
- ☐ Wetlands: acres.

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):**

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

**SECTION IV: DATA SOURCES.**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☐ U.S. Geological Survey Hydrologic Atlas: .
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name: .
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: Georgetown soil map #9.
- ☒ National wetlands inventory map(s). Cite name: Yauhanna Quad.
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): 1994, 1999, and 2006 SC DNR aerial infrared photos.  
or ☐ Other (Name & Date): .
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☐ Other information (please specify): .

**B. ADDITIONAL COMMENTS TO SUPPORT JD:** The wetlands and waters in the project area are TNWs and wetlands adjacent to TNWs and are, therefore, jurisdictional by definition.



**APPROVED JURISDICTIONAL DETERMINATION FORM**  
**U.S. Army Corps of Engineers**

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER: SAC, 701 Bridge Replacement, 2009-01107-DJE**

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: SC County/parish/borough: Georgetown City:  
Center coordinates of site (lat/long in degree decimal format): Lat. 33.65763° N, Long. 79.15896° E.  
Universal Transverse Mercator:

Name of nearest waterbody: Great Pee Dee

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Great Pee Dee

Name of watershed or Hydrologic Unit Code (HUC): 03040207-02

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

☐ Office (Desk) Determination. Date:

☒ Field Determination. Date(s): 10-22-09

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION.**

There **Are** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☒ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.  
Explain:

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION.**

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

**1. Waters of the U.S.**

**a. Indicate presence of waters of U.S. in review area (check all that apply):<sup>1</sup>**

- ☒ TNWs, including territorial seas
- ☒ Wetlands adjacent to TNWs
- ☐ Relatively permanent waters<sup>2</sup> (RPWs) that flow directly or indirectly into TNWs
- ☐ Non-RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- ☐ Impoundments of jurisdictional waters
- ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

**b. Identify (estimate) size of waters of the U.S. in the review area:**

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: acres.

**c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual & OHWM**

Elevation of established OHWM (if known):

**2. Non-regulated waters/wetlands (check if applicable):<sup>3</sup>**

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.  
Explain:

<sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

<sup>2</sup> For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

<sup>3</sup> Supporting documentation is presented in Section III.F.

### SECTION III: CWA ANALYSIS

#### A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

##### 1. TNW

Identify TNW: **Great Pee Dee River, Yauhanna Lake.**

Summarize rationale supporting determination: Lake Yauhanna consists of navigable tributaries draining into the Great Pee Dee River which is a navigable water also.

##### 2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent": The wetlands in the project area are floodplains and overflow for the Great Pee Dee River and as such are hydrologically connected. They share the same limits of jurisdiction and have contiguous flow.

#### B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody<sup>4</sup> is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

##### 1. Characteristics of non-TNWs that flow directly or indirectly into TNW

###### (i) General Area Conditions:

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: inches

Average annual snowfall: inches

###### (ii) Physical Characteristics:

###### (a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: .

<sup>4</sup> Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.



Identify flow route to TNW<sup>5</sup>:  
Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural  
☐ Artificial (man-made). Explain:  
☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):

Average width: feet  
Average depth: feet  
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

<input type="checkbox"/> Silts	<input type="checkbox"/> Sands	<input type="checkbox"/> Concrete
<input type="checkbox"/> Cobbles	<input type="checkbox"/> Gravel	<input type="checkbox"/> Muck
<input type="checkbox"/> Bedrock	<input type="checkbox"/> Vegetation. Type/% cover:	
<input type="checkbox"/> Other. Explain:		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Pick List**

Estimate average number of flow events in review area/year: **Pick List**

Describe flow regime:

Other information on duration and volume:

Surface flow is: **Pick List**. Characteristics:

Subsurface flow: **Pick List**. Explain findings:

☐ Dye (or other) test performed:

Tributary has (check all that apply):

<input type="checkbox"/> Bed and banks	
<input type="checkbox"/> OHWM <sup>6</sup> (check all indicators that apply):	
<input type="checkbox"/> clear, natural line impressed on the bank	<input type="checkbox"/> the presence of litter and debris
<input type="checkbox"/> changes in the character of soil	<input type="checkbox"/> destruction of terrestrial vegetation
<input type="checkbox"/> shelving	<input type="checkbox"/> the presence of wrack line
<input type="checkbox"/> vegetation matted down, bent, or absent	<input type="checkbox"/> sediment sorting
<input type="checkbox"/> leaf litter disturbed or washed away	<input type="checkbox"/> scour
<input type="checkbox"/> sediment deposition	<input type="checkbox"/> multiple observed or predicted flow events
<input type="checkbox"/> water staining	<input type="checkbox"/> abrupt change in plant community
<input type="checkbox"/> other (list):	
<input type="checkbox"/> Discontinuous OHWM. <sup>7</sup> Explain:	

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

<input type="checkbox"/> High Tide Line indicated by:	<input type="checkbox"/> Mean High Water Mark indicated by:
<input type="checkbox"/> oil or scum line along shore objects	<input type="checkbox"/> survey to available datum;
<input type="checkbox"/> fine shell or debris deposits (foreshore)	<input type="checkbox"/> physical markings;
<input type="checkbox"/> physical markings/characteristics	<input type="checkbox"/> vegetation lines/changes in vegetation types.
<input type="checkbox"/> tidal gauges	
<input type="checkbox"/> other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Identify specific pollutants, if known:

<sup>5</sup> Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

<sup>6</sup> A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

<sup>7</sup> Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width):
- ☐ Wetland fringe. Characteristics:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size:        acres

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain:

Surface flow is: **Pick List**

Characteristics:

Subsurface flow: **Pick List**. Explain findings:

☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain:

☐ Ecological connection. Explain:

☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☐ Riparian buffer. Characteristics (type, average width):
- ☐ Vegetation type/percent cover. Explain:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately (        ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

### C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

### D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:  
☒ TNWs: linear feet width (ft), Or, acres.  
☒ Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**  
☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:  
☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

☐ Tributary waters: linear feet width (ft).

☐ Other non-wetland waters: acres.

Identify type(s) of waters: .

**3. Non-RPWs<sup>8</sup> that flow directly or indirectly into TNWs.**

- ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

☐ Tributary waters: linear feet width (ft).

☐ Other non-wetland waters: acres.

Identify type(s) of waters: .

**4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
- ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
- ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

**5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

**6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

**7. Impoundments of jurisdictional waters.<sup>9</sup>**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
- ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

**E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):<sup>10</sup>**

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain: .
- ☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination:

<sup>8</sup>See Footnote # 3.

<sup>9</sup>To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

<sup>10</sup> Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.  
Identify type(s) of waters: .
- ☐ Wetlands: acres.

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):**

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

**SECTION IV: DATA SOURCES.**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name: .
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation:Georgetown soild map #9.
- ☒ National wetlands inventory map(s). Cite name:Yauhanna Quad.
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date):1994, 1999, and 2006 SC DNR aerial infrared photos.  
or ☐ Other (Name & Date): .
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☐ Other information (please specify): .

**B. ADDITIONAL COMMENTS TO SUPPORT JD:** The wetlands and waters in the project area are TNWs and wetlands adjacent to TNWs and are, therefore, jurisdictional by definition.

## **USFWS Previous Agreements**

**Excerpt from**  
**Final Environmental Impact Statement**  
**Proposed Establishment of Waccamaw National Wildlife**  
**Refuge**  
**Volume I**





IN REPLY REFER TO:

## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

1875 Century Boulevard  
Atlanta, Georgia 30345

To: Recipients of the Final Environmental Impact Statement for the Proposed Establishment of Waccamaw National Wildlife Refuge

The Fish and Wildlife Service is pleased to provide you with a copy of the Final Environmental Impact Statement (FEIS) for the proposed establishment of Waccamaw National Wildlife Refuge. The FEIS outlines the actions proposed by the Service to preserve and protect a diversity of wildlife habitats within the coastal floodplain of Georgetown, Horry, and Marion Counties, South Carolina.

The proposal was developed by the Service in coordination with the State of South Carolina, other Federal agencies, and private organizations. In the FEIS, five alternatives and their potential impacts on the environment are evaluated. The Service believes the proposed action to preserve the wetlands is a positive step in preventing the loss of additional fish and wildlife habitat which is so important to this area of coastal South Carolina and its people.

Additional copies of the Final Environmental Impact Statement can be obtained free of charge from the U.S. Fish and Wildlife Service, 1875 Century Blvd., Suite 420, Atlanta, Georgia 30345, 1-800-419-9582. Your interest and support for preserving the area of the proposed Waccamaw National Wildlife Refuge are appreciated.

Sincerely yours,

Noreen K. Clough  
Regional Director

Enclosure

# **Final Environmental Impact Statement**

## **Proposed Establishment of Waccamaw National Wildlife Refuge**

Georgetown, Horry, and Marion Counties,  
South Carolina

### **Volume I**

U.S. Department of the Interior  
Fish and Wildlife Service  
Southeast Regional Office  
1875 Century Boulevard  
Atlanta, Georgia 30345

April 1997

**United States Department of the Interior**  

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**Fish and Wildlife Service**  
**Southeast Region**



generated through the sales of hunting and fishing licenses and associated ancillary purchases of equipment and other items. Although it is difficult to estimate the specific amounts of these expenditures which would be directly related to the proposed refuge, they are expected to be substantial.

#### 4.3.3.4. Transportation

The only primary highway that crosses the study area is U.S. Highway 701, which crosses the study area within Unit 1. Normally, if road construction or improvement is considered in the future on lands actually purchased for the refuge, those lands would be considered Section 4(f) statute lands and would have to be evaluated under Section 4(f) of the Department of Transportation Act of 1966. The intent of this statute and the policy of the Department of Transportation are not to prohibit road construction, but to avoid unnecessary impacts on public parks, recreation areas, refuges, and historic sites. The provisions of Section 4(f) require the Secretary of Transportation to determine: (1) that there is no feasible and prudent alternative to the use of the Section 4(f) land, and (2) that such project includes all possible planning to minimize harm to such park, recreation area, wildlife and waterfowl refuge or historic site. The evaluation must address location alternatives and design shifts that avoid the Section 4(f) land while still addressing the purpose and need of the project. When there are truly unusual factors or when the costs or community disruption reach extraordinary magnitude, road construction could still occur within refuge lands. However, the requirements of Section 4(f) do not apply if the refuge and highway are jointly developed. If a refuge is planned on a tract of land and a strip of land within the tract is reserved for a highway corridor at the time the development plan for the tract is established, Section 4(f) does not apply.

In view of the importance of the proposed Interstate Highway 73/74 corridor to Georgetown and Horry Counties, the Service has agreed to cooperate with the SCDOT to identify a 220 foot wide strip of land along both sides of the existing right-of-way that will be sufficiently wide to accommodate the widening of U.S. 701 (where it crosses Unit 1 of the proposed refuge) to interstate standards and deem it a "reserved corridor." The Service has also agreed to cooperate with the SCDOT to reserve a 1,000-foot corridor to accommodate road widening to desired future standards along other highways that are contiguous with, or adjacent to, the proposed refuge boundaries and to reserve a 1,000 foot corridor along the side of U.S. 701 and S.C. 544 where they are adjacent, and in close proximity to, the proposed refuge. The Service will enter into a "joint development agreement" with SCDOT that delineates the corridor that is being reserved and documents that the

requirements of Section 4(f) would not apply to any subsequent highway construction on the reserved right-of-way as previously planned (See Appendix 5).

The only road that has been considered for proposed new construction is the South Conway Bypass. It was not included as a viable option in the Draft Environmental Impact Statement for the Carolina Bays Parkway project, however (South Carolina Department of Transportation 1996). Because the South Conway Bypass remains an unresolved issue, and no right of way has been identified for it, the Service has taken no position concerning its status. However, the Service is willing to work with SCDOT and other appropriate agencies to identify a right of way for the South Conway Bypass, if and when the Service acquires any lands that may involve the potential project area.

#### **4.3.3.5. Local Real Estate Tax Revenues**

Under this alternative, all tracts acquired by the Service in fee title will be removed from local real estate tax rolls because federal government agencies are not required to pay state or local taxes. However, the Service makes annual payments to local governments, as required by the Refuge Revenue Sharing Act (Public Law 95-469).

Payments for acquired land are computed on whichever of the following formulas is greatest: (1) three-fourths of 1% of the appraised market value of the lands acquired in fee title; (2) 25% of the net refuge receipts collected; or (3) 75 cents per acre of the lands acquired in fee title within the county. The total estimated annual revenue-sharing payment that would be made to the three counties under this alternative would be about \$198,735. This is the amount that the Service would pay if all of the lands proposed for acquisition are acquired in fee title. If title remains in state and private ownerships, revenue sharing payments are not made. This estimate is based on three-fourths of 1% of the appraised market value as represented by an analysis of county tax records, appraisal information, and sales data.

#### **4.3.4. Cultural and Historic Resource Impacts**

Historic and archaeological sites would be protected under federal ownership as defined in the National Historic Preservation Act of 1966, as amended through 1992 (Public Law 89-665), the Archaeological Resources Protection Act of 1979 (P.L.96-95), the Native American Graves Protection and Repatriation Act of 1990 (P.L.101-601), and the implementing regulations authored by the Advisory Council on Historic Preservation, the Department of Interior, and the National Park Service.

Waccamaw Final Environmental Impact Statement

Chapter 4

Impact on:	Alternative A No Action	Alternative B Acquisition of 49,800 acres (Preferred alternative)	Alternative C Acquisition of 46,900 acres	Alternative D Acquisition of 37,700 acres	Alternative E Acquisition of 34,800 acres
Transportation Will present transportation projects be impacted?	No.	No. The Service has agreed to provide "reserve corridors" within refuge boundaries for present SCDOT projects which eliminates the need to prepare a section 4(f) evaluation.	No. The Service has agreed to provide "reserve corridors" within refuge boundaries for present SCDOT projects which eliminates the need to prepare a section 4(f) evaluation.	No. The Service has agreed to provide "reserve corridors" within refuge boundaries for present SCDOT projects which eliminates the need to prepare a section 4(f) evaluation.	No. The Service has agreed to provide "reserve corridors" within refuge boundaries for present SCDOT projects which eliminates the need to prepare a section 4(f) evaluation.
How will future transportation projects be impacted?	No impact.	No. The Service has agreed to provide "reserve corridors" within refuge boundaries for projected SCDOT projects which eliminates the need to prepare a section 4(f) evaluation.	No. The Service has agreed to provide "reserve corridors" within refuge boundaries for projected SCDOT projects which eliminates the need to prepare a section 4(f) evaluation.	No. The Service has agreed to provide "reserve corridors" within refuge boundaries for projected SCDOT projects which eliminates the need to prepare a section 4(f) evaluation.	No. The Service has agreed to provide "reserve corridors" within refuge boundaries for projected SCDOT projects which eliminates the need to prepare a section 4(f) evaluation.
Local Real Estate Tax Revenues How many acres would be removed from local tax rolls due to the Service's fee title acquisition?	0 acres	49,732 acres	46,830 acres	37,686 acres	34,784 acres

## **Appendix 5.**

**Correspondence between U.S. Fish and Wildlife Service  
and South Carolina Department of Transportation  
documenting agreements on transportation issues  
relating to the proposed establishment of  
Waccamaw National Wildlife Refuge.**



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

1875 Century Boulevard  
Atlanta, Georgia 30345

IN REPLY REFER TO:

February 5, 1997

Mrs. Elizabeth Mabry  
Executive Director  
South Carolina Department of Transportation  
955 Park Street  
Post Office Box 191  
Columbia, South Carolina 29202-0191

Dear Mrs. Mabry:

Thank you for your letter of January 16, 1997, to Roger Banks of our Charleston Ecological Services Office wherein you provided us with corridor width information for highways U.S. 701 and S.C. 544 as it relates to the Services' proposed Waccamaw National Wildlife Refuge. We appreciate the opportunity we were given to meet with you and your staff on January 2, 1997, to discuss our proposed refuge and answer any questions you had about how our project would impact future highway projects of the South Carolina Department of Transportation (SCDOT). We thoroughly understand and appreciate the desire of your agency to maximize its ability to carry out road widening, or other forms of modification in the area if the refuge is established. As you requested, we will address the following highway related issues:

- (1) Widening U.S. Highway 701 where it crosses Unit 1 of the proposed refuge.
- (2) Widening Highways U.S. 701 and S.C. 544 where they are adjacent, and in close proximity to, the proposed refuge boundary.
- (3) Widening, or in some way modifying, other highways in the area that are contiguous with or adjacent to proposed refuge boundaries.

#### **Widening U.S. 701 where it crosses Unit 1 of the proposed refuge.**

On November 18, 1994, the S.C. Highway Commission adopted a resolution that specifically states that between Georgetown, and Conway, South Carolina, the I-73/74 route will follow U.S. Route 701. Subsequently, PL 104-59 was signed on November 28, 1995, identifying I-73 and I-74 as "high priority" corridors. In view of the importance of these future Interstate Highways to Georgetown and Horry Counties, it is understandable why your agency wants assurance that if the refuge is approved, Section 4(f) of the Department of Transportation Act of 1966 will not prevent or delay future widening of Highway 701. In recognition of SCDOT's concern about this important matter, the Fish and Wildlife Service agrees:

- (a) If the refuge is approved, at such time as the purchase of the Pee Dee Swamp through which Highway 701 occurs is being pursued, it (the Service) will cooperate with the SCDOT to identify a strip of land adjacent to the existing right-of-way that will be sufficiently wide to accommodate widening of Highway 701 to interstate standards. Based on data provided in your letter dated January 16, 1997, the Service agrees to identify a 220 ft. wide strip along both sides of the existing roadway. These strips along both sides are necessary because SCDOT does not have adequate information to determine which side of the existing roadway



could best accommodate the additional lanes. However, since the forested wetland along the south side of the roadway is relatively undisturbed in contrast to the system along the northern side that has been cleared to accommodate power lines, we would encourage widening along the northern side. The 1.7-mile length of roadway in question that crosses the proposed refuge consists totally of 1.0-mile of solid fill causeway, and .7 miles of bridging. Since the entire 1.7-mile segment is located in the Pee Dee Floodplain and there are no existing side roads, there appears to be no need to establish improvements that could require an additional 1000 ft. of right-of-way as was requested in your letter.

(b) The Service will enter into a "Joint Development Agreement" with SCDOT that delineates the corridor that is being identified and clearly documents that the requirements of Section 4(f) will not apply to any subsequent highway construction on the described right-of-way as previously planned.

**Widening of U.S. 701 and S.C. 544 where they are adjacent, and in close proximity to, the proposed refuge boundary.**

At this time, the boundaries of the proposed refuge are depicted on maps in the Environmental Impact Statement. Any approved boundaries would not actually be surveyed until those lands are acquired. However, the proposed refuge boundary is sufficiently accurate to predict that there may be key locations where highways U.S. 701 and S.C. 544 will come close enough for the SCDOT to have concern about the application of Section 4(f). For reasons outlined in your letter, we concur with the explanation of why you are recommending a 1,000 ft. wide strip along both sides of U.S. 701 (except the 1.7-mile segment across the Pee Dee floodplain), and a 1,000 ft. corridor to be reserved for future widening along the west side of S.C. 544. In recognition of SCDOT's concern about this important issue, the Service agrees:

(a) At such time as the refuge is approved and the Service pursues acquisition of lands that are situated in close proximity to highways U.S. 701 and S.C. 544, we will recognize a 1,000 ft. corridor along the side of the highway that is contiguous with the refuge. The Service will cooperate with the SCDOT to identify a strip of land within the 1,000 ft. corridor that will be sufficiently wide to accommodate road widening to desired standards.

(b) The Service will enter into a "Joint Development Agreement" with the SCDOT that delineates the corridor that is being identified and clearly documents that the requirements of Section 4(f) will not apply to any subsequent highway construction on the described right-of-way as previously planned.

**Widening, or in some way modifying, other highways in the area that are contiguous with or adjacent to proposed refuge boundaries:**

In our meeting of January 2, 1997, you expressed concern, not only about highways U.S. 701 and S.C. 544 as discussed above, but also about SCDOT's ability to make future improvements on other roads that are contiguous with, or adjacent to, proposed refuge boundaries. Although there are currently no modifications being proposed for any other roads in the area, other than those discussed above, you were concerned about taking any action that could jeopardize or delay future modifications. We understand your concern about making provisions for future projects and therefore, the Service agrees:

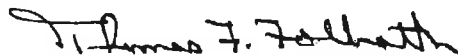
(a) At such time as the refuge is approved and acquisition of land is pursued, we will notify the SCDOT prior to the purchase of any land that is near, or contiguous with, an existing State maintained road or highway. At this time the Service would give the SCDOT the opportunity to verify that they do have a planned project, or that they want to establish a corridor that will accommodate any perceived modifications. Based on the explanation given in your letter, we will recognize a 1,000 ft. corridor along the side of any highway that is contiguous with the refuge. The Service would then cooperate with the SCDOT to identify a strip of land within the 1,000 ft. corridor that would be sufficiently wide to accommodate any future modifications.

(b) The Service will enter into a "Joint Development Agreement" with the SCDOT that delineates the corridor that is being identified and clearly documents that the requirements of Section 4(f) will not apply to any subsequent highway construction on the described right-of-way as previously planned.

We trust that the commitments we have made above address the comments in the SCDOT letter of September 13, 1996, during the Draft Environmental Impact Statement (EIS) public comment period, those concerns that were discussed at our January 2, 1997, meeting, and those expressed in your letter of January 16, 1997, to our Charleston Ecological Services field office. Upon your review and concurrence with these commitments, we will incorporate them in the appropriate sections of the Final EIS. If you have any comments regarding the above, please contact me at 800-419-9582 by February 21, 1997, in order that we can meet our schedule for completion and release of the Final EIS.

Thank you for your willingness to work with us on this effort, and we want to assure you that the Service will do all it can to ensure that establishment of the proposed Waccamaw National Wildlife Refuge will not impede planned or future activities along existing highways in the area.

Sincerely yours,



Thomas F. Follrath  
Senior Realty Officer  
Refuges and Wildlife



South Carolina  
Department of Transportation

955 Park Street  
Post Office Box 191  
Columbia, South Carolina 29202-0191

February 20, 1997

S.C. 544 and U.S. 701

Waccamaw National Wildlife Refuge  
Georgetown and Horry Counties

Office of the Director  
(803) 737-1302 • Fax (803) 737-2033

Deputy Director of Engineering  
(803) 737-1314 • Fax (803) 737-2038

Deputy Director of Finance and Administration  
(803) 737-1240 • Fax (803) 737-1719

Deputy Director of Mass Transit  
(803) 737-9720 • Fax (803) 737-9739

Mr. Thomas F. Follrath  
Senior Realty Officer  
Refuges and Wildlife  
U.S. Fish & Wildlife Service  
1875 Century Boulevard  
Atlanta, Georgia 30345

Dear Mr. Follrath:

Thank you for your letter of February 5 concerning the Waccamaw National Wildlife Refuge. I enjoyed our recent meeting and look forward to working with you on this important project.

We have reviewed your letter and concur with your recommendations. It is my understanding that these commitments will be incorporated into the Final EIS for the refuge and, prior to the purchase of any land that is near or contiguous to an existing state maintained roadway, the Service would coordinate with the SCDOT to identify a corridor of sufficient width to accommodate future roadway modifications. The Service would also enter into an agreement with the SCDOT to document that the requirements of Section 4(f) would not apply to any subsequent highway construction within the agreed upon corridor.

Thank you again for all of your efforts. Please let me know if I can be of further assistance.

Yours very truly,

Elizabeth S. Mabry  
Executive Director

ESM: bws

cc: Mr. Roger L. Banks, U.S. Fish & Wildlife Service  
Mr. Buford S. Mabry, Chief Counsel, DNR  
Mr. William C. Boyd, Esquire, Sinkler & Boyd  
Mr. Ed Duncan, Department of Natural Resources

File: PC/TE

## **Additional Correspondence between USFWS and SCDOT**

U.S. FISH AND WILDLIFE SERVICE  
Division of Realty



1875 Century Boulevard NE, Room 420  
Atlanta, Georgia 30345



DATE: April 30, 2002

To: Craig Sasser

From: Brenda M. Johnson-Turner  
Realty Specialist, East Branch  
Brenda\_Johnson-Turner@fws.gov  
(404) 679-7202  
(404) 679-7273 fax  
1 (800) 419-9582

Subject: SCDOT-Yauhannah Bluff Site

Pages: 2 (including cover sheet)

Remarks: Craig, Tom and Cal want to discuss this letter we received from SCDOT. Please let me know what time you would be able to discuss this today via conference with Tom, Cal, and Roger Banks. I am in the office today until 4pm. If you will not be able to discuss today, please let me know that I can coordinate a time acceptable to all for tomorrow. Thanks. I got your message and I will look for the level 1 as well as the attachment.

If there are problems with receiving, please call us at (404) 679-7237



South Carolina  
Department of Transportation

April 24, 2002

Mr. Thomas F. Follrath  
Chief, Division of Realty  
U.S. Department of the Interior  
U.S. Fish and Wildlife Service  
1875 Century Boulevard  
Atlanta, GA 30345

Subject: Acquisition of Property on U.S. Route 701 for a Refuge Headquarters in  
Georgetown County, South Carolina

Dear Mr. Follrath:

Thank you for your letter dated April 9, 2002, concerning the above referenced subject. In this letter, your agency has identified a parcel of property adjacent to U.S. Route 701 to acquire for a Refuge Headquarters. An agreement between our agencies dated February 5, 1997, identified and preserved a 220-foot wide strip of land along both sides of U.S. Route 701 for future widening. Your recent letter requests that the agreement be amended to allow for acquisition and development within this 220-foot strip on the south side of the roadway near the Pee Dee Swamp.

If future widening of this roadway becomes necessary, an environmental document prepared to National Environmental Policy Act (NEPA) standards will be required. NEPA requires that all reasonable alternatives must be evaluated, which prevents the Department from restricting consideration of alternatives for reasonably foreseeable improvements. If the NEPA analysis determines the preferred alternative is widening to the south side of U.S. Route 701, then the potential exists for impacting the refuge headquarters.

The Department has no objection to the acquisition and development of this property as long as the U.S. Fish and Wildlife Service will agree to incur all necessary costs involved with relocating this facility, if the preferred alternative impacts this site. If this arrangement were agreeable to you, an agreement between our agencies outlining the details would need to be executed.

If you have any additional questions, please feel free to contact me at 803-737-1240

Sincerely,

Robert J. Probst  
Deputy Director

RJP:cw

cc: Ms. Elizabeth S. Mabry, Executive Director  
Mr. Roger L. Banks, USFWS

File: Env/JWH





# U.S. FISH AND WILDLIFE SERVICE

## Division of Realty



1875 Century Boulevard NE, Room 420  
Atlanta, Georgia 30345



**DATE:** May 7, 2002

**To:** Craig Sasser  
Complex Biologist, SC

**From:** Brenda M. Johnson-Turner  
Realty Specialist, East Branch  
Brenda\_Johnson-Turner@fws.gov  
(404) 679-7202  
(404) 679-7273 fax  
1 (800) 419-9582

**Subject:** SCDOT letter

**Pages:** 4 (including cover sheet)

**Remarks:** We sent this off today so hopefully they will get the letter tomorrow. If you have questions, please call me at (404) 679-7202. As always, I appreciate your assistance.

If there are problems with receiving, please call us at (404) 679-7237



## United States Department of the Interior

## FISH AND WILDLIFE SERVICE

1875 Century Boulevard  
Atlanta, Georgia 30345In Reply Refer To:  
FWS/R4/RP/RE

MAY 07 2002

LA-South Carolina  
Waccamaw NWR  
Yauhannah Properties, Inc. (30)VIA OVERNIGHT MAILMr. Robert J. Probst, Deputy Director  
South Carolina Department of Transportation  
Post Office Box 191  
Columbia, South Carolina 29202-0191

Dear Mr. Probst:

We are in receipt of your April 24, 2002 letter wherein you addressed our concern about the acquisition of property on U.S. Route 701 for our Waccamaw National Wildlife Refuge Headquarters. Basically, you concluded that your Department would have no objection to the acquisition and development of this property as long as the Service would agree to incur all necessary costs to relocate the facility, if it became necessary. Further, you stated that if we were agreeable to such an arrangement, that an agreement between our agencies would need to be executed.

As you can imagine, as a Federal Agency we have no mechanism available that would allow us to agree to pay relocation costs of a facility we are proposing to build. Also, in this particular case, we have no alternative properties available on which to build a headquarters facility.

In our April 9, 2002 letter to Mrs. Mabry, we asked if the South Carolina Department of Transportation would be willing to agree that it's not necessary for the Service to preserve a 220 foot buffer on the south side of U.S. Highway 701, thus freeing up the entire parcel for the new headquarters facility. We understand your future concern about NEPA standards that you must meet if you ever propose to widen this segment of U.S. Highway 701. However, our request to delete the 220 foot buffer on the south side of the highway was premised on our knowledge of NEPA requirements, as well as extensive experience in commenting on proposed highway alignments. As we pointed out in our February 5, 1997 letter to Mrs. Mabry, the system along the northern side of the highway has already been disturbed through clearing for power lines, etc., whereas the forested wetland along the south side of the roadway is relatively undisturbed. Regardless of whether the headquarters facility was present or not, we believe that the preferred

Mr. Robert J. Probst

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alignment for any future widening of U.S. Highway 701 at this point, would be on the more highly disturbed north side. I think that it is also appropriate to point out that the original agreement that was cited in the EIS was specific to the possible acquisition of the Pee Dee Swamp Tract. Whereas Yauhannah Bluff (tract in question) is presently outside of our original acquisition boundary, it was technically not addressed in the EIS. This being the case, since it is a "special purpose" acquisition, there might be some question whether we even need to modify the original agreement.

It should be pointed out that our current plans are to locate the physical headquarters structure as close to the river bluff as possible, positioning it just south, or slightly south, of the 220 foot right-of-way line. At this time, we only envision locating certain infrastructure components within the 220 foot area, such as parking facilities, septic system, etc. Our decision as to where to actually locate the headquarters building is somewhat constrained by the presence of archaeological resources and where they are located on the property. Fortunately, most of the archaeological resources that have been identified to date are located close to the road. If this trend continues, we should be able to build our headquarters close to the river bluff as we originally planned.

In an effort to reach a compromise position that would meet your possible future needs to build Highway 701 to Interstate Standards, while at the same time allowing the Service to retain adequate space to build our new Headquarters, we would agree to the following solutions:

1. Your Department could achieve the necessary 250 foot wide footprint to meet Interstate Standards by setting aside 125 feet on both sides of the existing centerline of Highway 701;
2. Assuming that the edge of the existing right-of-way is 75 feet from the centerline, the Service would only have to commit to identifying an additional 50 feet in order to meet your needs;
3. The Service will commit to preserving this 125 foot strip from the existing centerline of US Route 701 on the south side of the highway.

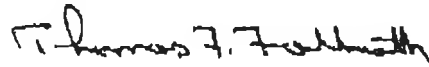
In summary, we request that you agree to allowing the Service to preserve a 125 foot strip from the existing centerline on the south side of Highway 701 rather than the 220 feet we committed to in our February 5, 1997 letter. Furthermore, this agreement will document that the requirements of Section 4(f) would not apply to any subsequent highway construction within the agreed upon corridor. If you concur with the aforementioned solutions, please sign below and return. Thank you for your consideration to this request.

Mr. Robert J. Probst

3

If you have additional questions, please feel free to contact me at (404) 679-7198.

Sincerely,



Thomas F. Follrath  
Chief, Division of Realty

CONCURRENCE;

\_\_\_\_\_  
Mr. Robert J. Probst  
South Carolina Department of Transportation

\_\_\_\_\_  
Date



South Carolina  
Department of Transportation

July 9, 2003

117  
7/16/03

Mr. Thomas F. Follrath  
Chief, Realty Division  
U.S. Fish and Wildlife Service  
1875 Century Boulevard  
Atlanta, GA 30345

Subject: Purchase of Property adjacent to US Route 701 in the Pee Dee Swamp and adjacent to the Waccamaw River near Jackson Bluff in Georgetown and Horry Counties, South Carolina - FWS/R4/RF/RE

Dear Mr. Follrath:

The South Carolina Department of Transportation (SCDOT) has reviewed your letter of June 11, 2003 concerning the above referenced property acquisition. As per the agreement between the SCDOT and the US Fish and Wildlife Service (USFWS) outlined in letters dated February 5, 1997 and February 20, 1997, a 220-foot buffer, adjacent to the present right-of-way, was recognized on both sides of US Route 701 to accommodate future transportation construction activities and to preclude the need for Section 4(f) evaluations.

The three proposed sites appear to be in close proximity or adjacent to US Route 701. Although the SCDOT does not presently have any plans to widen this section of US 701, widening could occur due to future traffic demands or safety needs. If the subject property is directly adjacent to US Route 701, then a 220-foot strip adjacent to the Department's existing right-of-way needs to be identified and recognized for future widening.

If the required set aside is preserved to accommodate future widening of US Route 701, the Department believes that the proposed acquisition would meet the terms outlined in the above referenced agreement and offers no objections to the acquisition of this site. Thank you for informing us and allowing us to review your proposal. If you need any further information or have additional questions, please advise.

Sincerely,

Elizabeth S. Mabry  
Executive Director

BSM:cw

cc: John V. Walsh, Deputy State Highway Engineer  
Robert I. Pratt, Director of Preconstruction  
Berry Still, Program Manager

File: Env/JWH  
CTS No 21155



Enclosure (203) 777-2011  
11 0000000000000000

ENCLOSURE

## **USFWS Recent Agreements**





# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

176 Croghan Spur Road, Suite 200  
Charleston, South Carolina 29407



August 23, 2010

Mr. Edward Frierson  
Environmental Project Manager  
S.C. Department of Transportation  
P.O. Box 191  
Columbia, SC 29202-0191

Re: Biological Assessment, Bridge Replacement, Hwy. 701  
Georgetown and Horry Counties, SC, FWS Log No. 42410-2010-I-0577

Dear Mr. Frierson:

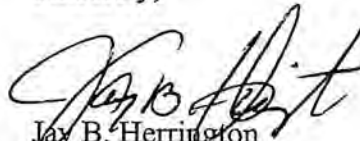
The U.S. Fish and Wildlife Service (Service) has received the Biological Assessment (BA) regarding the proposed replacement of the Hwy. 701 bridges over the Great Pee Dee River, Pee Dee River Overflow and Yauhannah Lake on the county line between Georgetown and Horry Counties, SC. This portion of Hwy. 701 crosses the Waccamaw National Wildlife Refuge (WNWR). The project as described in the revised BA will construct a replacement bridge south or downstream of the existing structure. This BA addresses potential impacts to protected species within the project corridor and was performed to satisfy requirements of the National Environmental Policy Act, 1969 (NEPA) and the Endangered Species Act of 1973 (Act), as amended.

Upon review of the information provided, the Service concurs with your determination that the proposed project will have no effect upon species currently protected under the Act. Please contact the national Oceanographic and Atmospheric Administration for consultation requirements regarding the shortnose sturgeon. Obligations under section 7 of the Act must be reconsidered if (1) new information reveals impacts of this identified action may affect any listed species or critical habitat in a manner not previously considered, (2) this action is subsequently modified in a manner which was not considered in this assessment, or (3) a new species is listed or critical habitat is designated that may be affected by the identified action.

**TAKE PRIDE<sup>®</sup>**  
**IN AMERICA** 

If you have any questions regarding the Service's determination, please do not hesitate to contact Mark Caldwell at (843) 727-4707 ext. 215.

Sincerely,



Jay B. Herrington  
Field Supervisor

JBH/MAC

cc: Mr. Craig Sasser, Refuge Manager, Waccamaw National Wildlife Refuge,  
Georgetown, SC

## **US 701 BRIDGE REPLACEMENT OVER GREAT PEE DEE AND OVERFLOWS**

### **New Preferred Alternative 2 Environmental Impact Analysis Relative to Old Preferred Alternative 3\***

Alternative 2 involves construction of a new alignment approximately 55 feet northwest (upstream) of the centerline of the existing alignment. 55 feet has been established as the minimum offset distance from the existing centerline that will permit the safe operation of the existing US 701 roadway and provide adequate space for drainage provisions during construction. The two primary environmental issues associated with this alternative include wetland impacts and wildlife impacts. In addition, there are secondary issues involving relocation of a public boat ramp, impacts to properties, and some utility relocations.

#### **Wetlands**

Alternative 2 would result in approximately 1.25 acres greater permanent wetland impacts than Alternative 3 (the downstream alternative). However, based on a field analysis and observations conducted by biologists from the SCDOT and the US Fish and Wildlife Service, the wetlands impacted by Alt. 2 would be of a lesser quality due to an old road bed running along the upstream side of the bridge. This road bed has resulted in less potential biomass due to observations of lower populations of mature obligate wetland plant species in the floodplain. In addition, the nearby regularly maintained power line right of way keeps a large swath of wetland on the upstream side in an unnatural immature palustrine emergent wetland state. This marsh-type environment has a significantly different and less diverse biotic community than the primarily palustrine forested wetland and palustrine unconsolidated bottom wetland communities on the downstream side of the existing bridge.

One method of assessing the value and function of wetlands is in terms of wildlife habitat. The U.S. Fish and Wildlife Service (USFWS) Resource Category criteria are outlined in the USFWS Mitigation Policy, 46 CFR 7644-7663. Resource categories and mitigation planning techniques are assigned based on the following criteria:

- Category 1 - Communities of one-of-a-kind high value to wildlife, unique and irreplaceable on a national or eco-regional basis, habitat is not replaceable in kind based on present-day scientific and engineering skills within a reasonable time frame.
- Category 2 - Communities of high value to wildlife, which are relatively scarce or are becoming scarce on a national, or eco-regional basis, habitat, can be replaced in kind within a reasonable time frame based on present-day scientific and engineering skills.
- Category 3 - Community types of high to medium wildlife value which are relatively abundant on a national basis, out-of-kind replacement is allowable if a tradeoff analysis demonstrates equivalency of substituted habitat type and/or habitat values. These sites are often in conjunction with a replenishing source.
- Category 4 - Community types of low to medium wildlife value, generally losses will not have a substantial adverse effect on important fish and wildlife resources. These sites have often been affected by the present roadway or human

disturbances and are usually isolated.

Based on these criteria and the Department's on-site analysis, the wetlands on the upstream side best fit Category 4, except they are not isolated and the wetlands on the downstream side best fit Category 3, and with the possibility of even some Category 2 wetlands present.

In addition to general wetland protection, the habitat on the downstream side of the bridge includes the relatively unique ecosystem around Cowford Lake. Alternative 3 would result in additional clearing and access road construction which would eliminate most of the forested wetlands remaining between the bridges and Cowford Lake which currently serve as a natural filter for storm water runoff flowing into the lake. This forested wetland buffer strip provides an important wildlife corridor for both forest wildlife and wading birds including the federally endangered wood stork, which has been known to forage along the edge of Cowford Lake.

#### Wildlife

Alternative 3 potentially could impact wildlife around Cowford Lake thru greater noise impacts, due to the clearing of the forested buffer between the bridges and the lake. These impacts would be avoided by utilizing Alternative 2. The Cowford Lake wetland complex is comprised of a combination of an oxbow lake and a ridge and swale forested wetland topography which has evolved over thousands of years of river alignment adjustments. The lake has a beaver pond at its headwaters. The forested wetlands adjacent to the lake offer brood rearing habitat for wood ducks and hooded mergansers as well as foraging habitat for white ibis and wood storks. These behaviors could potentially be affected by increased roadway noise.

The lake itself offers shallow water, vegetated spawning habitat for numerous freshwater fish species. Freshwater mussels can frequently be found where water flows from intersecting streams are present. The forested wetlands located between Cowford Lake and the Great Pee Dee River is the northernmost documented nest site for the Swallow-tailed Kite (*Elanoides forficatus*) which is both a state listed species and focal species for the US Fish and Wildlife Service. This nest site has been active for over 10 years and in 2009, an artificial nest structure was installed in a tree in this area as part of a larger study using artificial nesting structures to improve site selection. This structure was the only artificial structure used by kites throughout the study area in 2009.

Another state listed species has a population in the project area, the Rafinesque's big eared bat. These bats use these forested wetlands and open water areas as their primary foraging areas and often roost in hollow trees, old barns, or other structures along the river and beneath bridges.

Construction of Alternative 3 would result in degradation of many of these species' habitats. Therefore, as a result of these new analyses and considerations, Alternative 2 has been selected as the new preferred alternative, as opposed to the previous selection of Alternative 3.

\*Some of the data used in this analysis was obtained during an onsite meeting on 9/28/2012 with USFWS Refuge Managers Craig Sasser and Terry Peacock, USFWS Biologist Mark Caldwell, and SCDOT Biologist Ed Frierson.

Signed: 





U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**South Carolina**  
October 17, 2012

1835 Assembly Street, Suite 1270  
Columbia, South Carolina 29201  
803-765-5411  
803-253-3989

In Reply Refer To:  
HDA-SC

Mr. Marshall Craig Sasser  
Refuge Manager  
Waccamaw National Wildlife Refuge  
21424 N. Fraser Street  
P.O. Box 1439  
Georgetown, SC 29440

Dear Mr. Sasser:

The South Carolina Department of Transportation (SCDOT) in coordination with the Federal Highway Administration South Carolina Division (FHWA-SC) proposes to replace the existing U.S. 701 bridges over the Great Pee Dee River, Great Pee Dee overflow and Yauhannah Lake. The U.S. 701 bridge replacement project consists of the replacement and realignment of an approximately two mile long section of U.S. 701 located in Georgetown and Horry Counties. The purpose of the project is to replace the existing structurally deteriorated and functionally obsolete bridges and maintain the principal direct rural connection between the larger towns of Conway and Georgetown, as well as the smaller communities such as Bucksport and Yauhannah.

The Waccamaw National Wildlife Refuge (WNWR) was established in 1997 and is located adjacent to both sides of the existing U.S. 701 bridges. Through coordination with your office, the newly constructed bridges are proposed to be located north of the existing bridges in order to minimize impacts to the refuge. By locating the new bridges to the north, impacts to the Cowford Swamp area will be minimized. Shifting away from Cowford Swamp and the existing oxbow lake has been the preferred option by your office and others. One other advantage of shifting to the north would be that lower quality wetlands will be impacted. Wetlands are of a lesser quality due to an old road bed running along the upstream side of the existing bridges.

A Programmatic Section 4(f) Evaluation will be prepared in order to evaluate the impacts of the proposed project prior to the approval of any use of refuge land. This evaluation will address any feasible and prudent alternatives and all practicable planning measures to minimize harm to the refuge. In coordination with your office, FHWA-SC feels that the project meets FHWA's Programmatic Section 4(f) criteria for minor involvements with public parks, recreational lands, and wildlife and waterfowl refuges (attached).

Permanent impacts to the WNWR include a loss of approximately 5 acres of land parallel and directly adjacent to the existing bridges. Presently the WNWR encompasses nearly 27,000 acres and the proposed acquisition boundary spans over 55,000 acres. Based on these acreages, the project would impact 0.0185 percent of the existing refuge. The WNWR should see no net loss as a result of SCDOT's plans to replace the property impacted. Table 1 provides a comparison of impacts from the various alternatives. SCDOT plans to work with your office to find suitable replacement property to be turned over to the U.S. Fish and Wildlife Service (USFWS) as part of the mitigation for the project's impacts.

2  
Mr. Craig Sasser  
October 17, 2012

Table 1

Property Impacts	Alt. 1	Alt. 2 (Preferred)	Alt. 3	Alt. 4	Alt. 5
Residential Relocations	2	1	0	0	0
Acreage	1.62	0.94	0.00	0.00	0.00
Residential Take w/out Relocation	1	0	0	0	0
Acreage	0.73	0.00	0.00	0.00	0.00
Residential Partial Take	4	6	2	1	5
Acreage	0.64	1.04	0.16	0.15	0.34
Refuge Property (acres)	5.94	4.44	6.23	7.43	9.75
<b>Wetland Impacts</b>					
Permanent	10.92	9.50	8.25	10.12	15.69
Temporary	12.31	11.20	11.60	12.57	8.88

We ask for your concurrence that the location of the land to be used as a result of Alternative 2 shall not impair the use of the remaining Section 4(f) property, in whole or in part, for its intended purpose. The total amount to be acquired does not exceed 1 percent of the refuge which is within the criteria set by FHWA to qualify the project to be processed under the Programmatic Section 4(f) Evaluation for minor involvements with wildlife and waterfowl refuges.

If you concur with this assessment please sign below and return a copy to my office. We look forward to a continued coordination with you as this project progresses. Please address any questions you may have to Mr. J. Shane Belcher at 803-253-3187 or by e-mail at [jeffrey.belcher@dot.gov](mailto:jeffrey.belcher@dot.gov).

Sincerely,



(for) Robert L. Lee  
Division Administrator

Enclosures

CONCURRENCE:

Signed: 

Date: 10/17/2012

Mr. Marshall Craig Sasser  
Refuge Manager – Waccamaw National Wildlife Refuge

cc: Mr. Tyke Redfearn, SCDOT Program Manager  
Mr. Henry Phillips, SCDOT NEPA Environmental Coordinator



## ***Final Nationwide Section 4(f) Evaluation and Approval for Federally-Aided Highway Projects with Minor Involvements with Public Parks, Recreation Lands, and Wildlife and Waterfowl Refuges***

This programmatic Section 4(f) evaluation has been prepared for projects which improve existing highways and use minor amounts of publicly owned public parks, recreation lands, or wildlife and waterfowl refuges that are adjacent to existing highways. This programmatic Section 4(f) evaluation satisfies the requirements of Section 4(f) for all projects that meet the applicability criteria listed below. No individual Section 4(f) evaluations need be prepared for such projects. (Note: a similar programmatic Section 4(f) evaluation has been prepared for projects which use minor amounts of land from historic sites).

The FHWA Division Administrator is responsible for reviewing each individual project to determine that it meets the criteria and procedures of this programmatic Section 4(f) evaluation. The Division Administrator's determinations will be thorough and will clearly document the items that have been reviewed. The written analysis and determinations will be combined in a single document and placed in the project record and will be made available to the public upon request. This programmatic evaluation will not change the existing procedures for project compliance with the National Environmental Policy Act (NEPA) or with public involvement requirements.

### **Applicability**

This programmatic Section 4(f) evaluation may be applied by FHWA only to projects meeting the following criteria:

1. The proposed project is designed to improve the operational characteristics, safety, and/or physical condition of existing highway facilities on essentially the same alignment. This includes "4R" work (resurfacing, restoration, rehabilitation, and reconstruction), safety improvements, such as shoulder widening and the correction of substandard curves and intersections; traffic operation improvements, such as signalization, channelization, and turning or climbing lanes; bicycle and pedestrian facilities; bridge replacements on essentially the same alignment; and the construction of additional lanes. This programmatic Section 4(f) evaluation does not apply to the construction of a highway on a new location.
2. The Section 4(f) lands are publicly owned public parks, recreation lands, or wildlife and waterfowl refuges located adjacent to the existing highway.
3. The amount and location of the land to be used shall not impair the use of the remaining Section 4(f) land, in whole or in part, for its intended purpose. This determination is to be made by the FHWA in concurrence with the officials having jurisdiction over the Section 4(f) lands, and will be documented in relation to the size, use, and/or other characteristics deemed relevant.

The total amount of land to be acquired from any Section 4(f) site shall not exceed the values in the following Table:

**Total Size of Section 4(f) Site Maximum to Be Acquired**

< 10 acres	10 percent of site
10 acres - 100 acres	1 acre
> 100 acres	1 percent of site

4. The proximity impacts of the project on the remaining Section 4(f) land shall not impair the use of such land for its intended purpose. This determination is to be made by the FHWA in concurrence with the officials having jurisdiction over the Section 4(f) lands, and will be documented with regard to noise, air and water pollution, wildlife and habitat effects, aesthetic values, and/or other impacts deemed relevant.
5. The officials having jurisdiction over the Section 4(f) lands must agree, in writing, with the assessment of the impacts of the proposed project on, and the proposed mitigation for, the Section 4(f) lands.
6. For projects using land from a site purchased or improved with funds under the Land and Water Conservation Fund Act, the Federal Aid in Fish Restoration Act (Dingell-Johnson Act), the Federal Aid in Wildlife Act (Pittman-Robertson Act), or similar laws, or the lands are otherwise encumbered with a Federal interest (e.g., former Federal surplus property), coordination with the appropriate Federal agency is required to ascertain the agency's position on the land conversion or transfer. The programmatic Section 4(f) evaluation does not apply if the agency objects to the land conversion or transfer.
7. This programmatic evaluation does not apply to projects for which an environmental impact statement (EIS) is prepared, unless the use of Section 4(f) lands is discovered after the approval of the final EIS. Should any of the above criteria not be met, this programmatic Section 4(f) evaluation cannot be used, and an individual Section 4(f) evaluation must be prepared.

**Alternatives**

The following alternatives avoid any use of the public park land, recreational area, or wildlife and waterfowl refuge:

1. Do nothing.
2. Improve the highway without using the adjacent public park, recreational land, or wildlife and waterfowl refuge.
3. Build an improved facility on new location without using the public park, recreation land, or wildlife or waterfowl refuge.

This list is intended to be all-inclusive. The programmatic Section 4(f) evaluation does not apply if a feasible and prudent alternative is identified that is not discussed in this document. The project record must clearly demonstrate that each of the above alternatives was fully

evaluated before the FHWA Division Administrator concluded that the programmatic Section 4(f) evaluation applied to the project.

### Findings

In order for this programmatic Section 4(f) evaluation to be applied to a project, each of the following findings must be supported by the circumstances, studies, and consultations on the project:

1. **Do Nothing Alternative.** The Do Nothing Alternative is not feasible and prudent because: (a) it would not correct existing or projected capacity deficiencies; or (b) it would not correct existing safety hazards; or (c) it would not correct existing deteriorated conditions and maintenance problems; and (d) not providing such correction would constitute a cost or community impact of extraordinary magnitude, or would result in truly unusual or unique problems, when compared with the proposed use of the Section 4(f) lands.
2. **Improvement without Using the Adjacent Section 4(f) Lands.** It is not feasible and prudent to avoid Section 4(f) lands by roadway design or transportation system management techniques (including, but not limited to, minor alignment shifts, changes in geometric design standards, use of retaining walls and/or other structures, and traffic diversions or other traffic management measures) because implementing such measures would result in: (a) substantial adverse community impacts to adjacent homes, businesses or other improved properties; or (b) substantially increased roadway or structure cost; or (c) unique engineering, traffic, maintenance, or safety problems; or (d) substantial adverse social, economic, or environmental impacts; or (e) the project not meeting identified transportation needs; and (f) the impacts, costs, or problems would be truly unusual or unique, or of extraordinary magnitude when compared with the proposed use of Section 4(f) lands. Flexibility in the application of American Association of State Highway and Transportation Officials (AASHTO) geometric standards should be exercised, as permitted in 23 CFR 625, during the analysis of this alternative.
3. **Alternatives on New Location.** It is not feasible and prudent to avoid Section 4(f) lands by constructing on new alignment because (a) the new location would not solve existing transportation, safety, or maintenance problems; or (b) the new location would result in substantial adverse social, economic, or environmental impacts (including such impacts as extensive severing of productive farmlands, displacement of a substantial number of families or businesses, serious disruption of established patterns, substantial damage to wetlands or other sensitive natural areas, or greater impacts to other Section 4(f) lands or (c) the new location would substantially increase costs or engineering difficulties (such as an inability to achieve minimum design standards, or to meet the requirements of various permitting agencies such as those involved with navigation, pollution, and the environment); and (d) such problems, impacts, costs, or difficulties would be truly unusual or unique, or of extraordinary magnitude when compared with the proposed use of Section 4(f) lands. Flexibility in the application of AASHTO geometric standards should be exercised, as permitted in 23 CFR 625, during the analysis of this alternative.

## **Measures to Minimize Harm**

This programmatic Section 4(f) evaluation and approval may be used only for projects where the FHWA Division Administrator, in accordance with this evaluation, ensures that the proposed action includes all possible planning to minimize harm. This has occurred when the officials having jurisdiction over the Section 4(f) property have agreed, in writing, with the assessment of impacts resulting from the use of the Section 4(f) property and with the mitigation measures to be provided. Mitigation measures shall include one or more of the following:

1. Replacement of lands used with lands of reasonably equivalent usefulness and location and of at least comparable value.
2. Replacement of facilities impacted by the project including sidewalks, paths, benches, lights, trees, and other facilities.
3. Restoration and landscaping of disturbed areas.
4. Incorporation of design features (e.g., reduction in right-of-way width, modifications to the roadway section, retaining walls, curb and gutter sections, and minor alignment shifts); and habitat features (e.g., construction of new, or enhancement of existing, wetlands or other special habitat types); where necessary to reduce or minimize impacts to the Section 4(f) property. Such features should be designed in a manner that will not adversely affect the safety of the highway facility. Flexibility in the application of AASHTO geometric standards should be exercised, as permitted in 23 CFR 625, during such design.
5. Payment of the fair market value of the land and improvements taken or improvements to the remaining Section 4(f) site equal to the fair market value of the land and improvements taken.
6. Such additional or alternative mitigation measures as may be determined necessary based on consultation with, the officials having jurisdiction over the parkland, recreation area, or wildlife or waterfowl refuge.

If the project uses Section 4(f) lands that are encumbered with a Federal interest (see **Applicability**), coordination is required with the appropriate agency to ascertain what special measures to minimize harm, or other requirements, may be necessary under that agency's regulations. To the extent possible, commitments to accomplish such special measures and/or requirements shall be included in the project record.

## **Coordination**

Each project will require coordination in the early stages of project development with the Federal, state and/or local agency officials having jurisdiction over the Section 4(f) lands. In the case of non-Federal Section 4(f) lands, the official with jurisdiction will be asked to identify any Federal encumbrances. Where such encumbrances exist coordination will be required with the Federal agency responsible for the encumbrance.

For the interests of the Department of Interior, Federal agency coordination will be initiated with the Regional Directors of the U.S. Fish and Wildlife Service, the National Park Service,

Mr. Craig Sasser  
October 17, 2012

and the Bureau of Reclamation; the State Directors of the Bureau of Land Management, and the Area Directors of the Bureau of Indian Affairs. In the case of Indian lands, there will also be coordination with appropriate Indian Tribal officials.

Before applying this programmatic evaluation to projects requiring an individual bridge permit the Division Administrator shall coordinate with the U.S. Coast Guard District Commander.

Copies of the final written analysis and determinations required under this programmatic Section 4(f) evaluation shall be provided to the officials having jurisdiction over the involved Section 4(f) area and to other parties upon request.

### **Approval Procedure**

This programmatic Section 4(f) approval applies only after the FHWA Division Administrator has:

1. Determined that the project meets the applicability criteria set forth above;
2. Determined that all of the alternatives set forth in the Findings section have been fully evaluated;
3. Determined that the findings in this document (which conclude that there are no feasible and prudent alternatives to the use of the publicly owned public park, recreation area, or wildlife or waterfowl refuge) are clearly applicable to the project;
4. Determined that the project complies with the Measures to Minimize Harm section of this document;
5. Determined that the coordination called for in this programmatic evaluation has been successfully completed;
6. Assured that the measures to minimize harm will be incorporated in the project; and
7. Documented the project file clearly identifying the basis for the above determinations and assurances.

Issued on: 12/23/86 Approved: /Original Signed By/ Ali F. Sevin Office of Environmental Policy Federal Highway Administration

**MEMORANDUM OF AGREEMENT BETWEEN  
THE FEDERAL HIGHWAY ADMINISTRATION,  
THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION,  
AND THE UNITED STATES FISH AND WILDLIFE SERVICE**

REGARDING THE REPLACEMENT OF THE US 701 BRIDGES OVER THE GREAT PEE  
DEE RIVER, THE GREAT PEE DEE RIVER OVERFLOW, AND YAUHANNAH LAKE  
GEORGETOWN AND HORRY COUNTIES, SOUTH CAROLINA; FEDERAL PROJECT  
NUMBER BR88(044)

WHEREAS, the South Carolina Department of Transportation (SCDOT), with the assistance of Federal-aid funds administered by the Federal Highway Administration (FHWA), proposes to replace the US 701 Bridges over the Great Pee Dee River, the Great Pee Dee River Overflow, and Yauhannah Lake in Georgetown and Horry Counties; and

WHEREAS, the existing bridges are located within the SCDOT's right of way and adjacent to the Waccamaw National Wildlife Refuge (NWR), a property owned by the United States, under the jurisdiction of the United States Fish and Wildlife Service (USFWS); and

WHEREAS, there are conflicting documentations defining the limits of the SCDOT right of way and the NWR property within the limits of the project, and

WHEREAS, the US 701 bridges are in structurally deficient condition and must be replaced immediately for the safety of the travelling public, and

WHEREAS, an Environmental Assessment (EA) document must be prepared, processed and approved before the design and construction of the US 701 facility can begin, and

WHEREAS, a critical component of the NEPA process and preparation of the EA is the determination and evaluation of impacts this project may have on the environment and surrounding properties, including the Section 4(f) and Section 6(f) impacts on the NWR property, and

NOW, THEREFORE, for the limited purpose of expediting the necessary environmental review the FHWA, the SCDOT, and the USFWS agree that the Section 4(f) and Section 6(f) impacts on the NWR property will be calculated and assessed in accordance with the following stipulations:

**I. STIPULATIONS**

- A. The following stipulations will enable the FHWA and the SCDOT to compute and assess the worst case Section 4(f) and Section 6(f) impacts on the USFWS properties as part of the environmental review process described above.
- B. **USA Tract 30 (SCDOT Tract 9) in Georgetown County** - The USFWS property line along US 701 as defined in the deed recorded in the County of Georgetown will be accepted. Total Acreage of Tract is approximately 31.4 acres.



- C. **USA Tract 11 (SCDOT Tract 18) in Georgetown County** – Approximately 120 ft wide narrow strip lying in the southeast quadrant where US 701 crosses Yauhannah Lake will be considered to be owned by US FWS. SCDOT right of way along this property will be limited to a 100 ft width downstream of the existing centerline of US 701. Total acreage of Tract is included in the total for U.S.A. Tracts 10a, 10b (SCDOT Tract 17).
- D. **USA Tract 17p (SCDOT Tract 16) in Georgetown County** – The USFWS property line along US 701 will be accepted. SCDOT right of way along this property will vary. Total Acreage of Tract is approximately 331.65 acres.
- E. **USA Tracts 10a, 10b (SCDOT Tract 17) in Georgetown County** – A 200 ft wide (100 ft upstream and 100 ft downstream) SCDOT right of way will be accepted. When combined with U.S.A. Tract 11 (SCDOT Tract 18), total acreage is approximately 1,299.57 acres.
- F. **USA Tracts 17m, 17n (SCDOT Tracts 19, 20) in Horry County** – A 400 ft (250 ft upstream and 150 ft downstream) SCDOT right of way will be accepted. When adjusted to account for the SCDOT right-of-way, total acreage of is approximately 461.66 acres.

## II. Limitations of the Above Stipulations

The above stipulations will be valid only for the purpose of computing the Section 4(f) and Section 6(f) impacts on the USFWS properties in the vicinity of the US 701 project and reflects a worst case scenario in terms of impacts. The parties agree that no express or implied admission of legal title to any property interest is intended by these stipulations and these stipulations will not be valid to prepare the right of way acquisition calculations.

### SIGNATORIES:

Federal Highway Administration

By:   
Mr. Robert L. Lee, Division Administrator

Date: 5/14/12

South Carolina Department of Transportation

By:   
Mr. Randall D. Williamson, Environmental Engineer

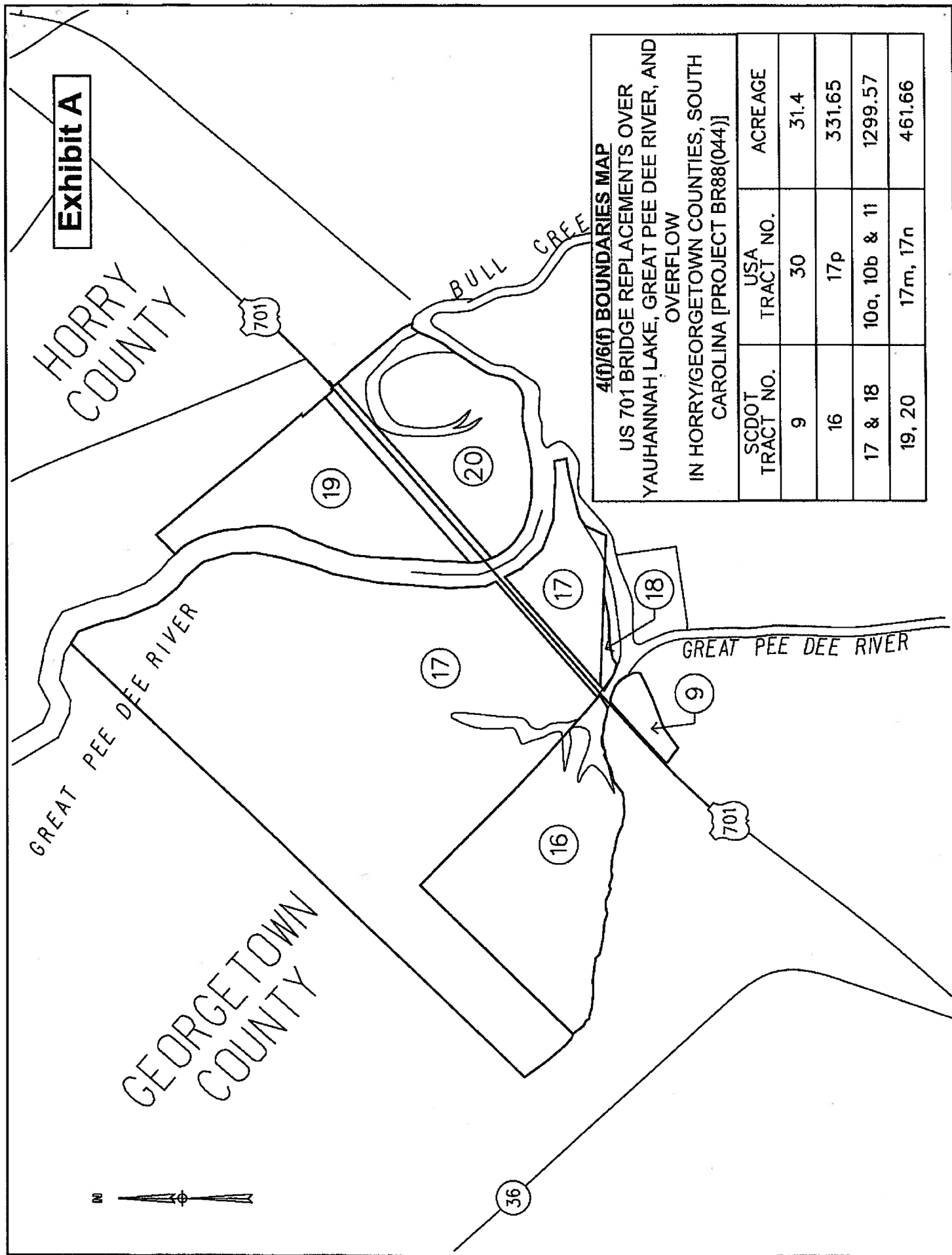
Date: May 2, 2012

United States Fish and Wildlife Service

By:   
Ms. Cynthia Donner, Southeast Regional Director

Date: June 21, 2012

# Exhibit A



**Determination of Section 4(f) *De minimis* Use**  
**Horry County Boat Landing**



FHWA South Carolina Division  
Determination of Section 4(f) *De minimis* Use

State File # 22.124B Fed Project # BR88(044) PIN 30688X Date 4-24-13 County Horry/Georgetown

Project Description US 701 Bridge Replacements over the Great Pee Dee, Great Pee Dee Overflow, and Yauhannah Lake

**Form Purpose:** This form is based on FHWA regulations regarding Section 4(f) found at 23 CFR 774. The form is to be used when a determination of *de minimis* use is to be made for a Section 4(f) property.

**Form Instructions:** Fill out the form completely based on type of impact and attach the approval from the agency with jurisdiction over the Section 4(f) resource to the form. When multiple 4(f) properties are impacted by a project and a *de minimis* finding is to be made for each property, a separate form must be filled out for each property affected.

Document Type: ☐ EIS ☒ EA ☐ CE

Description of the Section 4(f) Resource:

Yauhannah Landing, a public, recreational, Horry County maintained boat landing.

Brief Description of Project Scope:

Replacement of the three US 701 Bridges over the Great Pee Dee Overflow, the Great Pee Dee River, and Yauhannah Lake. New roadway approach will also be necessary. The project would begin at a point near the US 701/Lucas Bay Road intersection in Horry County and continue southwest for approximately two miles to a point near the US 701/Trinity Road intersection in Georgetown County.

Applicability Determination:

(to be applicable answers to all questions must be "yes")

I. For Public Parks, Recreation Areas, and Wildlife and/or Waterfowl Refuge:

1. Does the project involve a minor take of land from the resource? ☒ Yes ☐ No

a. Identify the total acreage of the resource: Acres ~1.0

Section 4(f) *De minimis* Finding Use Form Continued:

- b. Describe the use of the land from the resource and identify amount of the resource to be used (acres):

The existing boat landing will be relocated to another nearby location on the Horry County side of the Great Pee Dee River, new access roads from US 701 will be provided. Completed project will result in improved access and enhanced usage.

2. Does the project not adversely affect the qualities, activities, features, or other attributes of the resource that qualify it for protection under Section 4(f)? ☒ Yes ☐ No
3. Has the agency with jurisdiction over the resource concurred in writing with the FHWA's and/or SCDOT's determination that the project will not adversely affect the resource and is the concurrence attached? ☒ Yes ☐ No

- a. Identify the agency with jurisdiction:

Horry County

4. Has the agency with jurisdiction over the resource been informed of FHWA's and/or SCDOT's intent to make a *de minimis* finding? ☒ Yes ☐ No

- b. If yes, attach the correspondence. Correspondence attached? ☒ Yes ☐ No

5. Has the public been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the resource? ☒ Yes ☐ No

- a. Identify the opportunity for public comment:

A Public Information Meeting was held on June 17, 2008 and a Location and Design Public Hearing was held on November 10, 2009.

## II. For Historic Properties:

1. Does the project have a "No Adverse Effect" or a "No Historic Properties Affected" on the historic property as defined by Section 106 of the National Historic Preservation Act and its regulations? ☐ Yes ☐ No

- a. Identify the effects determination for the resource:

- b. Describe the use of land from resource and identify the amount of the resource to be used (acres):

2. Has the SHPO and ACHP, if participating in the Section 106 consultation, concurred in writing with the effects determination? ☐ Yes ☐ No

a. If so, attach the written concurrence. Concurrence attached? ☐ Yes ☐ No  
*(Receipt of the SHPO's concurrence with the FHWA's finding, or a non-response after the specific time qualifies as the necessary correspondence from the official with jurisdiction over Section 106 properties).*

3. Has the SHPO and ACHP, if participating in the Section 106 consultation, been informed of FHWA's and/or SCDOT's intent to make a *de minimis* impact/no adverse finding based on their written concurrence in the Section 106 determination? ☐ Yes ☐ No

a. If yes, attach correspondence. Correspondence attached? ☐ Yes ☐ No

4. Have the views of the consulting parties participating in the Section 106 consultation been considered? ☐ Yes ☐ No

a. Attach any relevant correspondence and any necessary responses to consulting party comments. Correspondence attached? ☐ Yes ☐ No

### III. Alternatives Analysis:

1. Summarize why the use of the property from the resource cannot be avoided.

☒ Project needs would not be met.

Explain:

Analysis of all alternatives indicate unavoidable impacts to the resource. However, the existing bridges are structurally deficient and must be replaced for public safety reasons. The completed project will result in improved access to the boat landing thus providing improved safety.

☒ Substantial impacts to other environmental/cultural/social resources would result.

Explain:

During consideration of alternative alignments it has become apparent that Alternative 2 (55' upstream) would result in the minimum environmental impacts.

☐ Project complexity would increase resulting in greater construction and maintenance costs.

Explain:

☐ Other.

Explain:

2. Summarize the measures to minimize harm. This would include, if applicable, any mitigation measures.

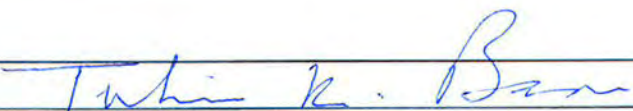
The Horry County Public Boat Landing will be accessible as much as possible and safe during construction of the proposed project. However, there will be a period of time when construction activities will take place in and around the boat landing area, and the use of this facility may be impacted. The proposed project will provide a safer and improved access road system to and from US 701. Overall, after the proposed construction is complete, the boat landing users will enjoy the benefits of safer road systems, enhanced boat landing facility, and improved parking bays for cars and trailers. The proposed US 701 Project will have positive impact on the Boat Landing facility.

**IV. Summary and Determination:**

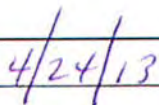
The project involves a *de minimis*/no adverse use on the Section 4(f) property as evidence with a "No Adverse Effect" finding from the SHPO or as evidence through the minimization of harm to a public park, recreation land or wildlife and waterfowl refuge as a result of mitigation to or avoidance of impacts to the qualifying characteristics and/or the functions of the resource.

Based on the scope of the undertaking; the fact that the undertaking does not adversely affect the function/qualities of the Section 4(f) resource on a permanent or temporary basis; and with agreement from the official with jurisdiction, the proposed action constitutes a *de minimis*/no adverse use and the alternatives analysis is considered satisfied.

Preparer:



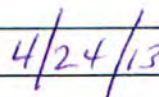
Date:



Program Manager:



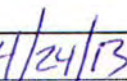
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Environmental Manager:



Date:




FHWA:

**J. Shane  
Belcher**

Digitally signed by J. Shane Belcher  
DN: cn=J. Shane Belcher, o=FHWA,  
ou, email=jeffrey.belcher@dot.gov,  
c=US  
Date: 2013.04.24 07:50:51 -04'00'

Date:







South Carolina  
Department of Transportation

October 22, 2012

Mr. Chris Eldridge  
Administrator  
Horry County  
1301 Second Avenue  
Conway, South Carolina 29526

Re: **Horry County Boat Ramp & Replacement of US 701 Bridges Over the Great Pee Dee River, Great Pee Dee River Overflow, and Yauhannah Lake in Horry/Georgetown Counties [Project BR88(044); PCN 30688X; File 22.124B]**

Dear Mr. Eldridge:

The South Carolina Department of Transportation (SCDOT) proposes to replace three (3) existing bridges and related roadway along an approximate two (2) mile segment of US 701 over the Great Pee Dee River, Great Pee Dee River Overflow, and Yauhannah Lake located in Horry and Georgetown Counties. The purpose of the project is to replace the existing structurally deficient and functionally obsolete bridges and to maintain the principal direct rural connection between the cities of Conway and Georgetown, as well as the smaller communities such as Bucksport and Yauhannah. SCDOT understands that Horry County maintains the public boat ramp on the north bank of the Great Pee Dee River. In the attached letter dated January 12, 2006, SCDOT informed Horry County of its recommendation for placing the new US Route 701 alignment approximately 55 feet downstream of the existing centerline, and the Horry County Administrator concurred with SCDOT's recommendation. In October 2009, SCDOT issued an Environmental Assessment (EA) document for this project that supported the downstream preferred alignment.

As you are aware, a major portion of the project corridor traverses the Waccamaw National Wildlife Refuge (Refuge) which is managed by the United States Fish and Wildlife Service (USFWS). Although SCDOT followed accepted Environmental/NEPA guidelines while determining the downstream preferred alignment, USFWS does not concur with that alignment and believes that the downstream alignment will adversely impact the Refuge. After much deliberation and coordination between FHWA, SCDOT, USFWS, and other regulatory agencies and after USFWS recently provided information to support an upstream alignment, SCDOT agreed to pursue the upstream alignment located 55 feet upstream of and parallel to the existing centerline.

This new preferred alignment alternative located upstream of the existing Great Pee Dee River Bridge requires the removal and relocation of the current boat ramp, but at times that are safe and practical, SCDOT maintains its previous commitment of keeping the existing or the relocated boat ramp accessible during construction. The existing US 701 alignment will remain open to traffic during construction of the new bridges so access to the boat ramp should not be substantially interrupted, but there may be periodic boat ramp closures. The attached aerial map shows the proposed upstream alignment and options for the relocated boat ramp. At this time it

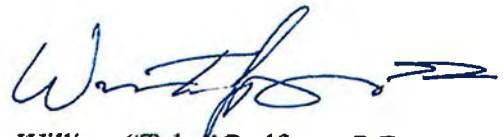


is important to include the optional locations which will allow more flexibility during construction. The proposed project includes re-alignment of the boat landing access drive which will improve safety for through traffic as well as the users of the boat landing.

SCDOT further understands that Horry County would like to be involved in the development of the design and layout of the boat landing area, and SCDOT will continue to coordinate with Horry County's engineering staff to be sure that proper input is obtained. To summarize, SCDOT proposes to replace three (3) existing bridges along US 701 over Yauhannah Lake, the Great Pee Dee River, and the Great Pee Dee River Overflow with new bridges being built on a shifted alignment that is upstream of the current US 701 centerline. Although relocation is ultimately required, the public boat ramp on the northern bank of the Great Pee Dee River which is maintained by Horry County will be temporarily impacted during construction of these replacement bridges, but by improving safety of and access to the existing boat landing, the net impacts are beneficial for the community.

That being said, SCDOT determined that the project will not adversely affect the activities conducted at or the important features and attributes of this boat landing. SCDOT respectfully requests your concurrence with this determination. If you agree with the above statements, please sign below and return the letter to me. If you have any questions at all, please do not hesitate to contact me at (803) 737-1430 or [redfearnwt@scdot.org](mailto:redfearnwt@scdot.org).

Sincerely,



William "Tyke" Redfearn, P.E.  
Assistant Program Manager  
Pee Dee Region – RPG2

Enclosures

cc: Andrew Markunas, Horry County  
J. Shane Belcher, FHWA  
Henry Phillips, SCDOT

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**US 701 Bridge Repl. – Public Boat Ramp [Project BR88(044); File 22.124B; PCN 30688X**

I concur X (do not concur       ) with the above determination.

Signed:   
Administrator, Horry County

Date: 10/25/12

*Horry County  
Maintenance Department*



*307 Smith Street  
Conway, SC, 29526  
Phone 843-915-5300  
Fax 843-248-1420*

January 30, 2006

Mike Barbee, P.E.  
SC Dept. of Transportation  
955 Park St. PO Box 191  
Columbia, SC 29202-0191

RE: Replacement of U.S. Route 701 Bridges over the Great Pee Dee River,  
Great Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown  
Counties, SC

Dear Mr. Barbee,

As requested, attached is approval by Danny Knight, Horry County  
Administrator, for the named project. Please call our office at the above number with any  
additional comments or concerns.

Sincerely,

A handwritten signature in dark ink, appearing to read "S. Allen Wrenn II".

S. Allen Wrenn II  
Deputy Director of Maintenance





South Carolina  
Department of Transportation

January 12, 2006

Mr. Danny Knight  
Horry County Administrator  
307 Smith Street  
Conway, SC 29526

RE: Replacement of U.S. Route 701 Bridges over the Great Pee Dee River, Great  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC

Dear Mr. Knight:

The South Carolina Department of Transportation (SCDOT) is currently preparing an Environmental Assessment (EA) for the above referenced project. The purpose of the project is to replace three structurally deficient and/or functionally obsolete bridges along a 2-mile segment of US Route 701 that begins near the US Route 701 / Trinity Road intersection in Georgetown County and extends to the US Route 701 / Lucas Bay Road intersection in Horry County. The bridges to be replaced are over Lake Yauhannah, the Great Pee Dee River and the Great Pee Dee River Overflow.

The new replacement structures will be positioned on a new roadway alignment in order to avoid the considerable detour length that would result from closing the existing roadway and constructing the new bridges on the existing US Route 701 alignment. As part of the environmental assessment process, we have evaluated several conceptual alternative alignments that are generally oriented parallel to the existing US Route 701 alignment. One of the factors considered in the development and evaluation of these conceptual alignment alternatives is access to the existing boat landing owned by Horry County located on the north bank of the Great Pee Dee River. Because of current geometric and sight distance deficiencies, it is difficult and unsafe for motorists traveling northbound on US 701 to turn into the boat landing access road or for motorists departing the boat landing to travel northbound or southbound on US Route 701.

Based on evaluations of the conceptual alternative alignments, all alignments would result in unavoidable impacts to the boat ramp facility in varying degrees. However, we have recommended placing the new US Route 701 alignment approximately 55 feet south, or downstream, of existing US Route 701. This alignment, in comparison to the other alternatives, has the least amount of wetland and property impacts as well as minimal impacts to the existing boat landing. The boat landing will remain at its current location and a new access road will be constructed. Additionally, any parking areas impacted by construction will be reconstructed as necessary. The project will improve access to the boat landing from US Route 701 for both northbound and southbound traffic and hence, improve safety for the residents utilizing the boat landing. The enclosed map shows the location of the proposed relocated US Route 701 Alignment in the vicinity of the boat landing facility and the conceptual layout of the new access road.

In summary, the proposed project will have minimal impact to the existing boat landing on the Great Pee Dee River, and will provide an overall benefit to Horry County by improving safety and access

RECEIVED



2006 JAN 13 10:10 AM  
COUNTY OF HORRY

2006 JAN 13 10:10 AM  
COUNTY OF HORRY

HORRY COUNTY MAINTENANCE

2006 JAN 13 10:10 AM  
COUNTY OF HORRY



Mr. Danny Knight  
Page 2

to the existing boat landing facility. The information contained in this letter was discussed with Mr. Allen Wrenn at an on-site meeting held October 4<sup>th</sup>, 2005. If you concur with the above statements, we request that you sign this letter in the space indicated below. After we receive your response, a copy will be provided for your records. This letter will also be incorporated into the appropriate sections of the Environmental Assessment Document.

We appreciate your assistance and willingness to work with the SCDOT on this project. Should you have any questions or require additional information, please do not hesitate to contact me at 803-737-4034.

Sincerely,

*Mike Barbee*

Mike Barbee, PE  
Program Manager

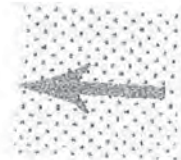
MWB:lgw  
Enclosure

I concur in the above determination.

Signed:  \_\_\_\_\_

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

Cc: Ed Frierson, SCDOT  
Shane Belcher, FHWA  
Tuhin Basu, Tuhin Basu & Associates, Inc.  
Allen Wrenn, Horry County  
File: PC/MWB



**Coordination for  
Archaeological Site 38GE18**

## Tuhin Basu

---

**From:** Redfearn, Tyke [RedfearnWT@dot.state.sc.us]  
**Sent:** Wednesday, September 30, 2009 1:47 PM  
**To:** Roberts, Wayne D; Frierson, Ed W  
**Cc:** Tuhin Basu  
**Subject:** RE: US 701 Bridge Improvements Georgetown Horry - DeMinimus 09.30.09

Thank you very much, Wayne! We will incorporate this message into the EA.

**William "Tyke" Redfearn III, E.I.T.**

Assistant Program Manager | Pee Dee - RPG-2

**SCDOT** Headquarters | Room 508

955 Park Street, Columbia, SC 29201

P: 803-737-1430 | F: 803-737-1881

[redfearnwt@scdot.org](mailto:redfearnwt@scdot.org)

---

From: Roberts, Wayne D  
Sent: Wednesday, September 30, 2009 1:25 PM  
To: Frierson, Ed W; Redfearn, Tyke  
Subject: FW: US 701 Bridge Improvements, Georgetown and Horry Counties

Gentleman,

I just got this email from David Kelly at the SHPO. They concur with our findings and agree that our action can be considered a de minimus 4(f) situation.

Wayne

---

From: Kelly, David [mailto:KELLY@SCDAH.STATE.SC.US]  
Sent: Wednesday, September 30, 2009 1:01 PM  
To: Roberts, Wayne D  
Subject: US 701 Bridge Improvements, Georgetown and Horry Counties

Hello Wayne---

I have reviewed the files on the US 701 Bridge Improvements project in Georgetown and Horry Counties. SHPO concurs with SCDOT's finding that the project will have No Adverse Effect to site 38GE18 (as previously documented in SCDOT's concurrence letter of 3/13/09) and acknowledges that this can be considered a de minimus 4f situation.

Let me know if you need anything else.

## *David P. Kelly*

*Department of Transportation Coordinator*

*National Register Survey Coordinator*

South Carolina Department of Archives and History

8301 Parklane Road

Columbia, SC 29223

Phone (803) 896-6184

Fax (803) 896-6167





South Carolina  
Department of Transportation

March 13, 2009

RECEIVED

MAR 18 2009

SC Department of  
Archives & History

Ms. Elizabeth Johnson  
Deputy State Historic Preservation Officer  
South Carolina Department of Archives & History  
8301 Parklane Road  
Columbia, South Carolina 29223-4905

Re: BR88(044), *Phase I Cultural Resources Survey of the Proposed US 701 Bridge Improvements, Georgetown and Horry Counties, South Carolina*, File Nos. 22.124B and 26.177B, PIN 30688.

Dear Ms. Johnson:

The Department's consultant has completed an intensive archaeological and architectural survey for the above referenced project. Two copies of the report dated June 30, 2005 are enclosed for your review and comment. Also enclosed are two copies of a Management Summary dated February 25, 2005, two copies of an addendum letter report dated May 30, 2006, the original Survey Card for Site 1595 and an electronic copy of these reports on compact disc.

The cultural resources report was originally sent to your office on June 23, 2005. At that time the proposed highway project was limited to the north side of US 701 and the project would have had no adverse effect to significant archaeological site 38GE18. A copy of this letter is enclosed.

However, the highway plans were revised to include disturbances on the south side of the highway. Another letter detailing the project revisions was sent to your office on December 6, 2006. A copy of this letter is also enclosed. This letter stated that the disturbances on the south side of the highway would be within 130 feet from the centerline in a disturbed portion of site 38GE18 that was a non-contributing element of the site. Therefore, there would be no adverse effect. The Department recommended monitoring of site 38GE18 during ground disturbing construction activities.

Unfortunately, your office never responded to our letter. There were however, additional discussions between Bonnie Frick of our office and Valerie Marcil of your office concerning additional underwater investigations. Neither of these employees remain in their positions and no further official written communications occurred. Copies of an email and a "Note to File" are enclosed concerning their discussions. We are also enclosing a copy of the 1924 bridge plans because questions were raised concerning an earlier bridge at that location.

The Department desires to reopen this unfinished consultation. We have enclosed copies of all the cultural resources reports and materials for your review and comment.





Ms. Elizabeth Johnson  
March 13, 2009  
Page 2

Therefore, there are no historic properties adversely affected. Monitoring of site 38GE18 by one of the Department's archaeologists will take place during ground disturbing construction activities. Personnel from your office and from the Catawba Nation Tribal Historic Preservation Office will be informed of these monitoring activities and afforded an opportunity to be present on-site if desired. Any archaeological manifestations observed will be reported. If any significant portions of 38GE18 are encountered, construction activities in that area will be halted and it will be treated as a late discovery.

In accordance with the memorandum of agreement approved by the Federal Highway Administration, March 16, 1993, the Department is providing this information as agency official designee, as defined under 36 CFR 800.2, to ensure compliance with Section 106 of the National Historic Preservation Act.

It is requested that you review the enclosed material and, if appropriate, indicate your concurrence in the Department's findings, thus completing the Section 106 consultation process. Please respond within 30 days if you have any objections or if you have need of additional information.

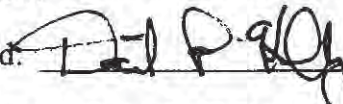
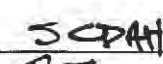

Sincerely,



Wayne D. Roberts  
Chief Archaeologist

WDR:edb  
Enclosure

I (~~concur~~) concur in the above determination.

Signed:   Date: 4/13/09  
 Project Coordinator

cc: Patrick Tyndall, FHWA  
Wenonah Haire, Catawaba Indian Nation  
Tyke Redfearn, Assistant Program Manager  
Keith Derting-SCIAA

File: Env/WDR





South Carolina  
Department of Transportation

March 13, 2009

Ms. Elizabeth Johnson  
Deputy State Historic Preservation Officer  
South Carolina Department of Archives & History  
8301 Parklane Road  
Columbia, South Carolina 29223-4905

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The Department desires to reopen this unfinished consultation. We have enclosed copies of all the cultural resources reports and materials for your review and comment.





BR88(044) Phase I Cultural Resources Survey  
of the Proposed US 701 Bridge Improvements,  
Georgetown and Horry Counties, South Carolina

Ms. Elizabeth Johnson

March 13, 2009

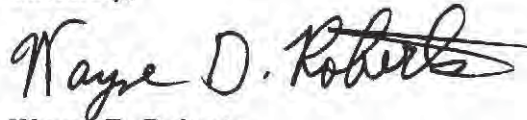
Page 2

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It is requested that you review the enclosed material and, if appropriate, indicate your concurrence in the Department's findings, thus completing the Section 106 consultation process. Please respond within 30 days if you have any objections or if you have need of additional information.

Sincerely,



Wayne D. Roberts  
Chief Archaeologist

WDR:edb  
Enclosure

I (~~do not~~) concur in the above determination.

Signed: Wenonah Haire, DD Date: 4/1/09

cc: Patrick Tyndall, FHWA  
Wenonah Haire, Catawaba Indian Nation  
Tyke Redfearn, Assistant Program Manager  
Keith Derting-SCIAA

File: Env/WDR

**MEMORANDUM OF AGREEMENT BETWEEN  
THE FEDERAL HIGHWAY ADMINISTRATION,  
THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION,  
THE SOUTH CAROLINA STATE HISTORIC PRESERVATION OFFICE, THE  
UNITED STATES FISH AND WILDLIFE SERVICE, AND THE CATAWBA INDIAN  
NATION TRIBAL HISTORIC PRESERVATION OFFICE**

REGARDING THE REPLACEMENT OF THE US 701 BRIDGES OVER THE GREAT PEE  
DEE RIVER, THE GREAT PEE DEE RIVER OVERFLOW, AND YAUHANNAH LAKE  
WITHIN THE WACCAMAW NATIONAL WILDLIFE REFUGE  
GEORGETOWN AND HORRY COUNTIES, SOUTH CAROLINA

WHEREAS, the Federal Highway Administration (FHWA), in cooperation with the South Carolina Department of Transportation (SCDOT), proposes to replace the US 701 Bridges over the Great Pee Dee River, the Great Pee Dee River Overflow, and Yauhannah Lake in Georgetown and Horry Counties; and

WHEREAS, the proposed undertaking is located within the Waccamaw National Wildlife Refuge, a property owned and managed by the United States Fish and Wildlife Service (USFWS); and

WHEREAS, the Yauhannah Bluff Site (38GE18), a property considered eligible for inclusion in the National Register of Historic Places under Criterion D, has been identified within the proposed undertaking's Area of Potential Effects; and

WHEREAS, the FHWA and the SCDOT have consulted with the South Carolina State Historic Preservation Office (SHPO) in accordance with Section 106 of the National Historic Preservation Act (16 U.S.C. Sec. 470f) and its implementing regulations (36 CFR Part 800) regarding the protection of historic properties, and

WHEREAS, the FHWA and the SCDOT have consulted with the Catawba Indian Nation Tribal Historic Preservation Office (CIN-THPO), for which site 38GE18 may have religious or cultural significance, and has invited the CIN-THPO to sign the MOA as an invited signatory; and

WHEREAS, the FHWA has consulted with the Eastern Shawnee Tribe of Oklahoma regarding the effects of the proposed undertaking on site 38GE18 and received no comments; and

NOW, THEREFORE, the FHWA, the SCDOT, the South Carolina SHPO, the USFWS, and the CIN THPO agree that the undertaking will be implemented according to the following stipulations in order to avoid adverse effects to site 38GE18:

**I. STIPULATIONS**

The FHWA and the SCDOT will ensure that the following stipulations are implemented:

- A. The southern bridge approach has substantially impacted a small portion of 38GE18. The project's "area of potential effect" will be limited to this area. To protect the

adjacent intact portion of 38GE18, the FHWA and SCDOT will ensure that the boundaries of archaeological site 38GE18 are identified as a "Restricted Area" on all construction plans (see Exhibit 1). The construction plans will include the following notation, "no ground-disturbing activities, including construction, heavy equipment access, and storage for equipment and materials are allowed within the Restricted Area." SCDOT will also inform the selected contractor about these restrictions at the Pre-Construction meeting where all special provisions are discussed.

- B. SCDOT's contractor will erect orange tree-saver fencing at the edge of the project's construction limits within the boundaries of archaeological site 38GE18 to clearly indicate the location of the "Restricted Area" as shown on the construction plans.
- C. All construction activities within the boundaries of archaeological site 38GE18 will be monitored by a professional archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for Archaeology (48 FR 44738-39).
- D. SCDOT will provide the FHWA, the USFWS, the SHPO, and the CIN-THPO with a written report that describes the results of monitoring activities.

## **II. Late Discoveries**

- A. All work within the boundaries of archaeological site 38GE18 will cease immediately if unanticipated cultural materials (e.g., large, intact artifacts or animal bones; large soils stains or patterns of soil stains, clusters of stone) or human skeletal remains are discovered during construction monitoring activities. SCDOT's archaeologist will immediately notify the SCDOT Resident Construction Engineer, the USFWS Refuge Manager, the USFWS Regional Historic Preservation Officer/Regional Archaeologist, the SHPO, the FHWA, and the CIN-THPO about the late discovery.
- B. An on-site meeting between the SCDOT, the USFWS, the FHWA, the SHPO, and the CIN-THPO will be held to evaluate the National Register significance of any late discovery. If the archaeological deposits discovered during monitoring activities are determined to be significant, the FHWA will comply with 36 CFR Part 800.13(b)(3) and consult with all parties to this agreement to resolve adverse effects. Depending on the significance of the deposits, actions to resolve adverse effects may include data recovery investigation, a written report, public education, and the development of a separate Memorandum of Agreement.

## **III. Curation**

Any recovered archaeological collections from USFWS land and associated documentation will be permanently curated at the Office of Archaeological Research (ORA) of the University of Alabama Museums in Tuscaloosa, Alabama. The ORA currently curates portions of the Yauhannah Bluff Site collections deriving from New South Associates' archaeological investigations funded by the Service in 2003 and 2006. Artifacts, artifact catalog, field notes, photographs, maps, analytical records, and a camera-ready report will be submitted to the repository upon completion of the work. All materials will be packaged following the ORA's accession standards.

The archaeological collection derived from the testing and excavation of the Yauhannah Bluff Site (38GE18) remains the property of the United States Government and may be recalled at any time for use by the Service. Once placed in the repository, the archaeological collection and associated documentation shall only be removed for study by qualified scholars or exhibited with the written permission of the Service Regional Director.

Any recovered archaeological collections associated with human remains will be reinterred with the human remains as decided on in consultation with the USFWS and the CIN-THPO.

#### **IV. Dispute Resolution**

The FHWA, the SCDOT, the USFWS, the CIN-THPO, and the SHPO will attempt to resolve any disagreement arising from the implementation of the MOA. In the event that the terms of this agreement cannot be carried out, the FHWA and the SCDOT will submit a new (or amended) MOA to the USFWS, the SHPO, and the CIN-THPO for review. If consultation to prepare a new MOA or amendments proves unproductive, the FHWA will seek comments from the Advisory Council on Historic Preservation (ACHP) in accordance with 36 CFR § 800.6(b)(2).

#### **V. Amendment and Modification**

Any signatory to this MOA may request that it be amended or modified at any time, whereupon the parties will consult with each other to consider such amendment or modification.

#### **VI. Termination**

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop and amendment per Stipulation IV, above. If within (30) days an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, the FHWA and the SCDOT must either (a) execute an MOA pursuant to 36 CFR § 800.6, or (b) request comments from the ACHP under 36 CFR § 800.7. The FHWA and the SCDOT will notify the signatories as to the course of action it will pursue.

#### **VII. Duration**

This MOA shall be null and void if its terms are not carried out within ten (10) years from the date of its execution, unless the signatories agree in writing to an extension for carrying out its terms.



EXECUTION of this Memorandum of Agreement by the Federal Highway Administration, the South Carolina Department of Transportation, the United States Fish and Wildlife Service, the Catawba Indian Nation Tribal Historic Preservation Office, and the South Carolina State Historic Preservation Office and implementation of its terms, is evidence that the FHWA has taken steps to avoid adverse effects to archaeological site 38GE18 in accordance with Section 106 of the National Historic Preservation Act (16 U.S.C. Sec. 470f) and its implementing regulations (36 CFR Part 800).

SIGNATORIES:

Federal Highway Administration

By: J. Shane Belknap Date: 5/29/12

South Carolina Department of Transportation

By: Randall D. Williams Date: 5/8/2012

South Carolina State Historic Preservation Office

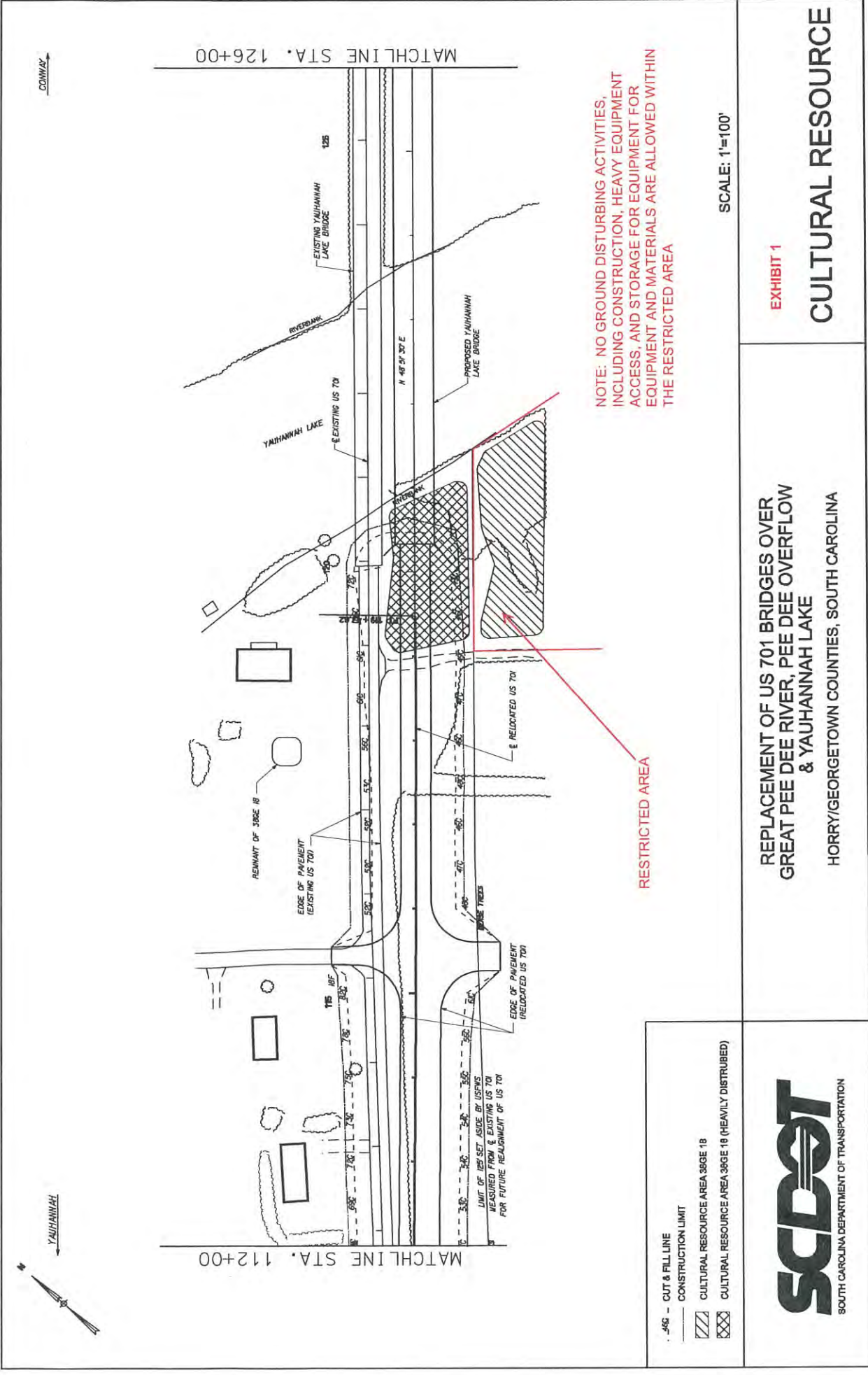
By: Elbert M. Johnson Date: 5/3/2012

United States Fish and Wildlife Service

By: Richard P. Ingram Date: 6/20/2012

Catawba Indian Nation Tribal Historic Preservation Officer

By: Wenonah G. Hain Date: 6/3/12



# EXHIBIT 1 CULTURAL RESOURCE

REPLACEMENT OF US 701 BRIDGES OVER  
GREAT PEE DEE RIVER, PEE DEE OVERFLOW  
& YAUHANNAH LAKE  
HORRY/GEORGETOWN COUNTIES, SOUTH CAROLINA



# **Letters of Intent**



**Tuhin Basu & Associates, Inc.**  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Dr. Wenonah Haire  
Tribal Historic Preservation Officer  
The Catawba Indian Nation  
611 East Main St.  
Rock Hill, SC 29730

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Dr. Wenonah Haire:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHIN BASU & ASSOCIATES, INC.**

*For*   
Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Mr. David Kelly  
State Historic Preservation Office  
SC Department of Archives & History  
8301 Parklane Road  
Columbia, SC 29223-4905

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
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Sincerely,

TUHIN BASU & ASSOCIATES, INC.

*Tuhin K. Basu*  
For Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Mr. Hop Ridgell  
Water Quality Certification, Standards  
And Wetlands Programs Section  
Bureau of Water  
SCDHEC  
2600 Bull Street  
Columbia, SC 29201

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
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**TUHIN BASU & ASSOCIATES, INC.**

*For*   
Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)





Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Mr. Henry Phillips, Manager  
Air Assessment and Planning Section  
Bureau Of Air Quality  
SCDHEC  
2600 Bull Street  
Columbia, SC 29201

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TUHIN BASU & ASSOCIATES, INC.

*For*   
Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



**Tuhin Basu & Associates, Inc.**  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Mr. John T. Litton, P.E.  
Division of Waste Management  
Bureau of Land & Waste Management  
SCDHEC  
2600 Bull Street  
Columbia, SC 29201

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mr. John T. Litton:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHIN BASU & ASSOCIATES, INC.**

*Harry Basu*  
for Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



**Tuhin Basu & Associates, Inc.**  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Mr. Leo Rose  
South Carolina Department of Natural Resources  
Rembert C. Dennis Building  
1000 Assembly Street  
P.O. Box 167  
Columbia, SC 29202

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mr. Leo Rose:

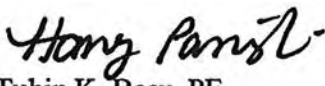
Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHIN BASU & ASSOCIATES, INC.**

*For*   
Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



**Tuhin Basu & Associates, Inc.**  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Mr. Mark Caldwell  
United States Department of the Interior  
Fish & Wildlife Service  
176 Croghan Spur Road, Suite 200  
Charleston, SC 29407

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mr. Mark Caldwell:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHIN BASU & ASSOCIATES, INC.**

*For*   
Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



**Tuhin Basu & Associates, Inc.**  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Ms. Mary Hope Glenn  
Department of the Army  
Charleston District, Corps of Engineers  
69A Hagood Avenue  
Charleston, SC 29403-5107

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Ms. Mary Hope Glenn:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHIN BASU & ASSOCIATES, INC.**

*for*   
Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Mr. David Keys  
NOAA Fisheries  
Southeast Regional Office – NEPA Coordinator  
9721 Executive Center Drive North  
St. Petersburg, FL 33702

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mr. David Keys:


Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

TUHIN BASU & ASSOCIATES, INC.

*For*   
Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)





Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Ms. Jean Manheimer  
South Carolina State Budget & Control Board  
State Clearing House for Intergovernmental Review  
1201 Main Street, Suite 950  
Columbia, SC 29201

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Ms. Jean Manheimer:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHIN BASU & ASSOCIATES, INC.**

*For*   
Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Ms. Kebby Kelley  
U.S. Coast Guard  
Environmental Management Division  
2100 Second Street, SW  
Washington, D.C. 20593

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Ms. Kebby Kelley:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

TUHIN BASU & ASSOCIATES, INC.

*For*   
Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



**Tuhin Basu & Associates, Inc.**  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Mr. Ben Burroughs, Director  
Horry County Historical Society  
606 Main St.  
Conway, SC 29526

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mr. Ben Burroughs:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHIN BASU & ASSOCIATES, INC.**

*Tuhin K. Basu*

For Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



**Tuhin Basu & Associates, Inc.**  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Ms. Sherry A. Suttles, Executive Director  
Atlantic Beach Historical Society  
P.O. Box 1732  
N. Myrtle Beach, SC 29598

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Ms. Sherry A. Suttles:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHIN BASU & ASSOCIATES, INC.**

*For* Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Ms. Linda Coleman Croyle, President  
Georgetown County Historical Society  
PO Box 861  
Georgetown, SC 29442

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Ms. Linda Coleman Croyle:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHIN BASU & ASSOCIATES, INC.**

*For*   
Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Mr. Henry Reynolds, Chairman  
Georgetown County Historic Preservation Commission  
633 Front Street  
Georgetown, SC 29440

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mr. Henry Reynolds:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHIN BASU & ASSOCIATES, INC.**

*Henry Basu*  
for Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)





**Tuhin Basu & Associates, Inc.**  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

The Committee for African Americans  
History Observances  
1623 Gilbert Street  
Post Office Box 1507  
Georgetown, South Carolina 29442

Attention: Mr. D. H. Drayton, Board Chairman

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mr. D. H. Drayton:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHIN BASU & ASSOCIATES, INC.**

*Harry Basu*  
for Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Mrs. S. Perry Davis  
Daughters of the American Revolution SC Society  
Post Office Box 68  
Pinewood, South Carolina 29125

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mrs. S. Perry Davis:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

TUHIN BASU & ASSOCIATES, INC.

*Hamzy*  
For Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Ms. Cynthia Nesmith  
Palmetto Trust for Historic Preservation  
8301 Parklane Road  
Columbia, South Carolina 29223

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Ms. Cynthia Nesmith:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

TUHIN BASU & ASSOCIATES, INC.

For Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Mr. Ernest J. Sifford, Jr., State President  
Sons of the American Revolution, SC Society  
Post Office Box 1347  
Mount Pleasant, South Carolina 29465-1347

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mr. Ernest J. Sifford:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

TUHIN BASU & ASSOCIATES, INC.

*Tuhin K. Basu*  
For Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Mrs. William M. Webster, III  
Colonial Dames of America  
200 Byrd Boulevard  
Greenville, South Carolina 29605

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mrs. William M. Webster, III:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHIN BASU & ASSOCIATES, INC.**

For Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

Ms. Theresa E. Floyd  
Georgetown County Council  
PO Drawer 421270  
Georgetown, South Carolina 29440-1270

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Ms. Theresa E. Floyd:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHHN BASU & ASSOCIATES, INC.**

*Hang Basu*  
For Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)





Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 17, 2004

South Carolina Historical Society  
108 ½ Courthouse Square  
Edgefield, South Carolina 29824

Attention: Mr. Bettis Rainsford, Esquire

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mr. Bettis Rainsford:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

TUHIN BASU & ASSOCIATES, INC.

*For*   
Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

703 447-0082  
FAX: 703 918-9878

December 30, 2004

Mr. Greg Shapley  
Commander, Seventh Coast Guard District  
Brickell Plaza Federal Building  
909 S.E. 1<sup>st</sup> Avenue  
Miami, FL 33130-3050

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mr. Greg Shapley:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently compiling information necessary for the completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long, 300 feet wide, and is centered on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

During the data collection process for the EA document, your agency as well as other affected agencies, may be contacted by us or our environmental subconsultant, ARM Environmental Services, Inc., for information/coordination related to the referenced project. Additionally, any preliminary comments your agency may have regarding this project would be appreciated.

We appreciate your assistance and look forward to working with you on this project. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

TUHIN BASU & ASSOCIATES, INC.

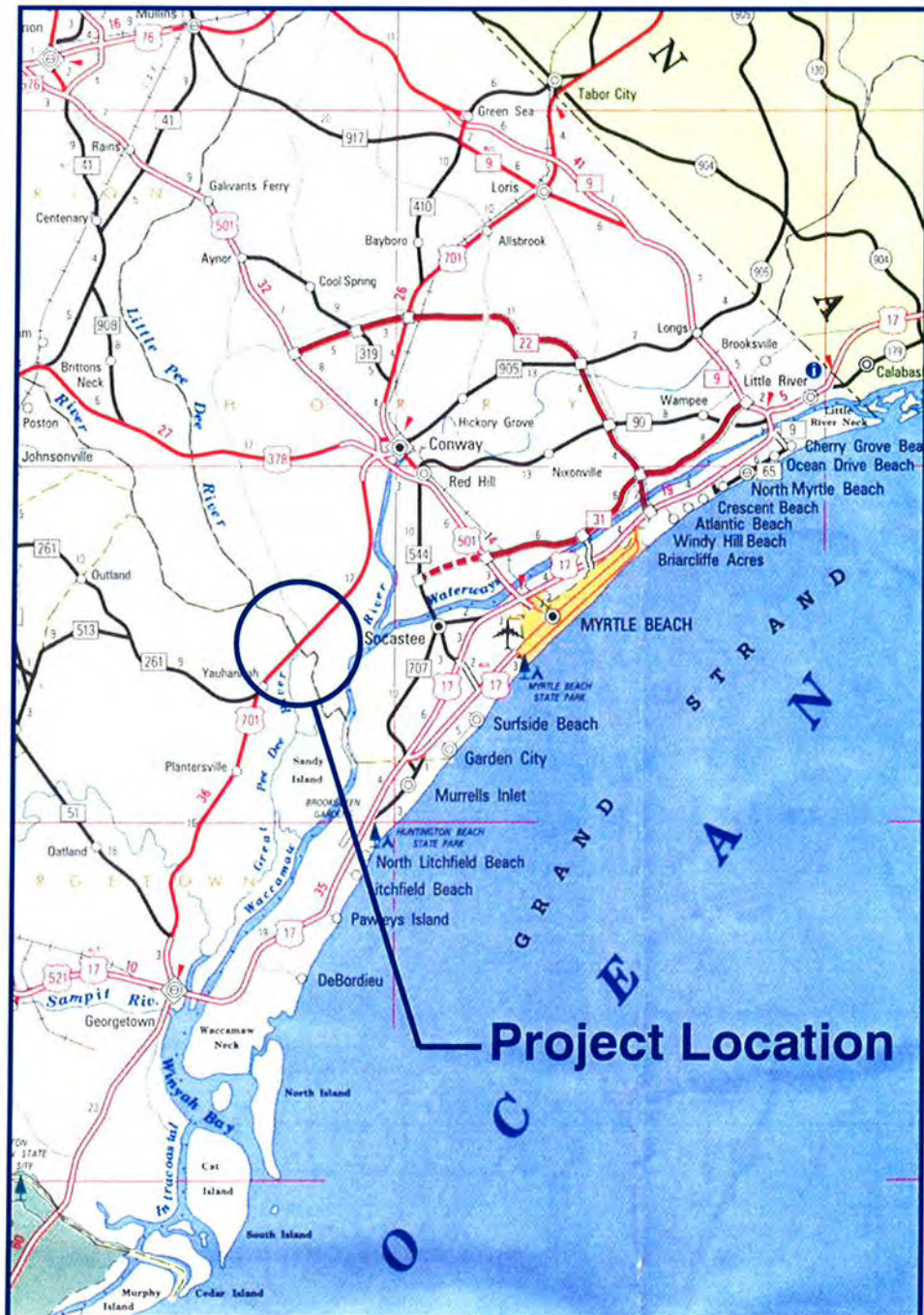
*For*   
Tuhin K. Basu, PE  
Project Manager

CC: Rob Hamzy (SCDOT)



South Carolina Department of Transportation

## US 701 over Pee Dee Overflow, Great Pee Dee River and Lake Yauhannah Horry/Georgetown Counties, SC



τβα Tuhin Basu & Associates, Inc.

**Specific Request for Information**  
**(E-mail/Fax)**

**VIA FACSIMILE (843) 946-9390**

January 3, 2005

Mr. Steve Knight  
South Carolina Department of Health and Environmental Control  
Waccamaw EQC District Office  
1705 Oak Street Plaza, Suite #2  
Myrtle Beach, SC 29577

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC  
Corridor Assessment**

Dear Mr. Knight;

Our firm is currently assisting the SCDOT in compiling information regarding any potential environmental concerns within the immediate area of the above referenced project. A map of the project area is attached. We are investigating any issues related to potential soil or ground water contamination in the area, so that they may be factored into the roadway planning project.

We have reviewed available regulatory data and have identified two UST sites and have submitted an FOI request to the Columbia office to review those files. The available data also indicates two Emergency Response incident reports apparently related to a spill in this area. The incident appears to have occurred on March 2, 1996 on US 701 and was tractor trailer related; however, limited details were available. I wanted to see if you or anyone in your office had any specialized knowledge of this incident, or any other potential environmental concerns that may not be readily available in a review of regulatory data.

I appreciate any information you may be able to provide. I will contact your office soon to follow up. If you have any questions or comments regarding this, please contact me at (803) 783-3314, or e-mail me at [rciccolella@armenv.com](mailto:rciccolella@armenv.com).

Sincerely,  
ARM Environmental Services, Inc.



Richard Ciccolella  
Staff Scientist

Attachment (1 map)

**VIA FACSIMILE 898-3816**

January 3, 2005

Freedom of Information Office  
South Carolina Department of Health and Environmental Control  
2600 Bull Street  
Columbia, South Carolina 29201

Re: Freedom of Information Request

Dear FOI Staff;

Please accept this letter as an FOI request to review DHEC file information for the following sites:

- Carris R. Cribb Site  
8911 HWY 701S  
Conway (Horry County), SC  
**DHEC UST ID #16574**
- Pee Dee Grocery  
9150 Hwy 701S  
Conway (Horry County), SC  
**DHEC UST ID #10475**
- HWY 701N – Yauhannah, SC (Spill)  
Georgetown County, SC  
**Emergency Response Notification #96481605**
- HWY 701N – Yauhannah, SC (Spill)  
Georgetown County, SC  
**Emergency Response Notification #96485571**

If you have any questions or comments regarding this request, please contact me at 783-3314. Thanks for the help.

Sincerely,  
ARM Environmental Services, Inc.



Richard Ciccolella  
Staff Scientist

## Harry Parrish

---

**From:** Richard Ciccolella [rciccolella@armenv.com]  
**Sent:** Friday, January 07, 2005 4:14 PM  
**To:** Mark Collins  
**Cc:** Harry Parrish  
**Subject:** Shortnose Sturgeon

Dr. Mark Collins  
SCDNR  
Marine Resources Division  
217 Ft. Johnson Road  
P.O. Box 12559  
Charleston, SC 29412

Dr. Collins,  
We are assisting Tuhin Basu & Associates with the collection of data necessary for the completion of an SCDOT Environmental Assessment related to the proposed replacement of the US 701 Bridges over the Great Pee Dee River, Pee Dee Overflow, and Lake Yauhannah, between Georgetown and Horry Counties.

The shortnose sturgeon is listed for both of these counties, and I understand that it may potentially occur in the Great Pee Dee River. I also understand that the sturgeon would likely make seasonal migrations upstream and downstream. I wanted to see if you could provide some input as to when the sturgeon would likely be present in the study area, as well as any other information that may be helpful in the planning stages of this project. I have attached location maps of the project area.

I sincerely appreciate your time. Please feel free to contact me at the number below or my e-mail address.

Thank you,

Richard Ciccolella  
ARM Environmental Services, Inc.  
1210 First Street South Ext.  
Columbia, SC 29209  
(803) 783-3314  
(803) 783-2587  
[rciccolella@armenv.com](mailto:rciccolella@armenv.com)

Project Area Location Maps





From Yauhannah Quad

## **Agency Letter Responses**

**South Carolina**  
**Department of Natural Resources**

# South Carolina Department of Natural Resources



February 14, 2005

Mr. Tuhin K. Basu  
7921 Jones Branch Drive  
Suite 545  
McLean, Virginia 22102

John E. Frampton  
Director  
D. Breck Carmichael, Jr.  
Deputy Director for  
**Wildlife and  
Freshwater Fisheries**

REF: U.S. Route 701 Bridge Replacement Over the Great Pee Dee River, Pee Dee Overflow, and Lake Yauhannah; Pin No. 30688; Horry and Georgetown Counties

Dear Mr. Basu:

Personnel with the South Carolina Department of Natural Resources have reviewed the information provided on the above referenced project, evaluated the projects potential impacts on natural resources and offer the following comments.

The proposed work includes the complete replacement of three bridges, along US 701 in Horry and Georgetown counties. The proposed new bridges would be part of a 2-mile long, 300-foot wide corridor centered on the existing US 701 alignment from a point near the Lucas Bay Road intersection to a point near the Trinity Road intersection. The project corridor crosses above the Great Pee Dee River, the Pee Dee Overflow, Lake Yauhannah, and through extensive floodplain forest.

After reviewing the information from the provided narrative, local maps, and GIS files, the Department has a number of environmental concerns with this project. Almost the entire project corridor falls within the Waccamaw National Wildlife Refuge, an expansive portion of forested floodplain wetland. Also, two colonies of Rafinesque's big-eared bat (*Corynorhinus rafinesquii*) have been observed roosting under the bridges proposed for replacement. Additionally, fill has been placed in the floodplain to build the approaches to the existing bridges. Consequently, the available fish and wildlife habitat has been fragmented and sheet flow across the Great Pee Dee River floodplain may have been impeded.

Forested floodplain areas perform numerous natural functions and serve significant public benefits including temporary storage of floodwaters, moderation of peak flows, maintenance of water quality, groundwater recharge, and prevention of erosion. Their associated plant communities provide food, cover and nesting sites for a variety of wildlife species. These plant communities also help to maintain water quality by serving as bio-filters to remove sediment, nutrients and other pollutants.

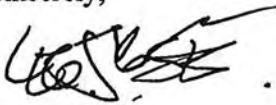
The approaches to the river for the new bridge should to the extent practicable avoid encroachment into valuable forested floodplain areas. Where wetland impacts are unavoidable, the Department typically recommends 2:1 slopes on road embankments and no center median to minimize impacts. These slopes should be stabilized with the appropriate native vegetation.

The Department believes that onsite mitigation options may exist for those wetland impacts that are unavoidable. Onsite mitigation options should be explored fully before other mitigation options are considered.

According to the South Carolina Heritage Trust Database, Rafinesque's big-eared bat (*Corynorhinus rafinesquii*) has been observed at two of the bridges proposed for replacement. This database reflects only known occurrences and should not be considered a complete account of the species potentially occurring within the project area. Rafinesque's big-eared bat is a state endangered species considered imperiled statewide because of its rarity. We recommend that activities related to bridge construction and replacement be tailored to minimize impacts to this rare species.

We appreciate the opportunity to provide comments on DOT projects and look forward to providing more input on this project as the plans mature.

Sincerely,



Leo Rose  
Environmental Programs Manager

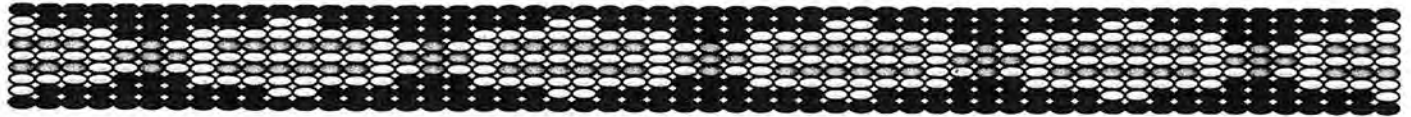
lr

cc: Travis Hughes - USACE  
Quinton Epps - SCDHEC  
Rob Mikell - SCDHEC/OCRM  
Kacy Campbell - USEPA  
Mark Caldwell - USFWS

**Catawba Indian Nation**  
**Tribal Historic Preservation Office**

Catawba Indian Nation  
Tribal Historic Preservation Office  
P. O. Box 750  
Rock Hill, South Carolina  
803-328-2427 Fax 803-328-5791

THPO # 2005-131-1



31 January 2005

Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, Virginia 22102

RE: THPO #

2005-131-1 SCDOT BR-BR88 (044), Replacement of Rt. 701 Bridges over Great Pee Dee, & Lake Yauhannah in Horry/Georgetown  
Counties, SC

This letter is acknowledgement of receipt of your request 17 December 2004 for information regarding the presence of historic properties or traditional cultural, religious, and/or sacred sites of the Catawba Indian Nation that may be impacted by the above referenced undertakings. The documented historic presence of the Catawba and their ancestors over much of Virginia, North Carolina and South Carolina presents a strong likelihood of such sites being encountered at these locations.

**We cannot complete this request without additional information. Please see the attached checklist.** The fee for the review process is \$150.00 for each project listed. If it is necessary for a site visit to take place, either before or after a Cultural Resource Management survey is conducted, the subsequent costs and travel expense are also to be paid by you and/or your client. However, we will contact you to discuss the reason and the subsequent related fees in advance.

While the State Historic Preservation Officer is required by National Historic Preservation Act to respond to requests such as yours within thirty days, Federally recognized Indian Tribes are under no such obligation. Nor does lack of response within your timeframe constitute Tribal assent to this project. Furthermore, Tribal assent, in writing does not satisfy your responsibilities with respect to any Federal or State laws concerning potential effects on historic properties. In addition to the above, we require you to provide appropriate notice to this office of any future activities at this site that may affect our legal and statutory interests in this location.

If you have questions, please feel free to contact our office at 803-328-2427, Beckee Garriss, ext. 232 or Sandra Reinhardt, ext. 233.

Sincerely,

*Sandra Reinhardt for Wenonah G. Haire*

Wenonah G. Haire  
Tribal Historic Preservation Officer

cc: Gilbert Blue, Chief, Catawba Indian Nation  
Executive Committee, Catawba Indian Nation  
John E. George, Traditional Medicine, Catawba Indian Nation

WGH/ssr



List of additional information needed to complete the Catawba Indian Nation Tribal Historic Preservation Office review of the following proposed project:

Project Name \_\_\_\_\_

Project Number \_\_\_\_\_

THPO Review Number \_\_\_\_\_

- \_\_\_\_\_ 1. The name, complete address, phone number, fax number and e-mail address of the project manager.
- X   2. The project location plotted on a USGA 7.5' topo map.
- \_\_\_\_\_ 3. The project name, address and/or location (street or highway), directions to nearest city, county, state and your project reference number.
- \_\_\_\_\_ 4. The project location plotted on a standard county highway map.
- \_\_\_\_\_ 5. A brief description of the proposed project. Please include the size of the proposed project site and the size of the area where ground-disturbing activities will be taking place and the type of disturbance anticipated. Please include the height of towers.
- \_\_\_\_\_ 6. A brief description of current and former land use.
- X   7. A list of all recorded archaeological sites within one mile of the project area.
- X   8. A list of all eligible and potentially eligible National Register of Historic Places sites within one mile of the proposed project area.
- \_\_\_\_\_ 9. A scope of work for proposed archaeology submitted by a professional archaeologist. Please contact the THPO before the proposed archaeological work is performed. We will advise you if this archaeological plan may pose a threat to Traditional Cultural Places and/or Sacred sites of the Catawba Indian Nation.
- \_\_\_\_\_ 10. A copy of the report for archaeological surveys conducted in the project area.
- \_\_\_\_\_ 11. Color photos of the proposed project site. It is not necessary to send original color photos if you can provide high-resolution color copies.
- X   12. A letter of concurrence from the appropriate State Historic Preservation Office.

**United States Coast Guard  
(Washington, DC)**

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commandant  
United States Coast Guard

2100 Second Street, S.W.  
Washington, DC 20593-0001  
Staff Symbol: G-OPT  
Phone: (202) 267-0368  
Fax: (202) 267-4046

16591  
January 4, 2005

Tuhin Basu & Associates, Inc.  
Attn: Mr. Tuhin K. Basu, PE  
7921 Jones Branch Drive  
Suite 545  
McLean, VA 22102

Dear Mr. Basu:

This is in reply to your letter dated December 17, 2004 to Ms. Kebby Kelley of the U. S. Coast Guard Environmental Management Division, Washington, DC regarding the replacement of the U. S. 701 bridges over the Great Pee Dee River, the Pee Dee Overflow and Lake Yauhannah in Horry/Georgetown Counties, South Carolina. The Coast Guard's jurisdiction with this project is limited to any associated bridge work across navigable waters of the United States. We are forwarding your letter to our Seventh Coast Guard District Bridge Office in Miami, Florida, under whose cognizance this project would fall. The district office will be able to determine if your project falls under our jurisdiction and whether it will require a Coast Guard Bridge Permit. If a permit is required, they will be able to assist you in filing an application for a permit. They will also be your point of contact for any associated environmental issues surrounding the development of an environmental assessment.

Sincerely,

A handwritten signature in black ink that reads "Frank A. Martin, Jr." with a stylized flourish at the end.

FRANK A. MARTIN, JR.  
Chief, Bridge Permits Division  
Office of Bridge Administration  
U. S. Coast Guard

Copy: D-7 (obr) with incoming letter

**United States Coast Guard  
(Seventh Coast Guard District)**

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commander  
Seventh Coast Guard District

909 SE 1<sup>st</sup> Avenue Suite 432  
Miami, FL 33131-3050  
Staff Symbol: (obr)  
Phone: (305) 415-6747  
Fax: (305) 415-6763  
Email: wtate@d7.uscg.mil

16591  
January 26, 2005

Mr. Tuhin K. Basu, PE  
Project Manager  
Tuhin Basu & Associates, Inc.  
7921 Jones Branch Dr., Suite 545  
McLean, VA 22102

Dear Mr. Basu:

I am responding to your letter of December 30, 2004 regarding the replacement of U.S. Route 701 bridges over Great Pee Dee River, Pee Dee Overflow, and Lake Yauhannah in Horry/Georgetown Counties, SC.

My examination indicates that this site is a federal project channel, and a formal Coast Guard permit will be required for the proposed bridge replacement project. However, if this project is federally funded, then the Federal Highway Administration (FHA), as outlined in 23 CFR 650.805, a copy of which is enclosed, has the responsibility to determine if a USCG permit is required. I've also enclosed a copy of a locality map indicating the federal project channel.

If federal funds are not utilized in this roadway/bridge project, then a Coast guard bridge permit is required for the project. The Coast Guard Bridge Permit Application Guide is available at <http://www.uscg.mil/hq/g-o/g-opt/g-opt.htm>. Please submit the permit application as outlined with original 8 1/2" X 11" permit plans showing the project vicinity, and existing and proposed bridge structures, in plan and elevation views.

If you have any questions regarding this matter, please call Mr. Gwin Tate at (305) 415-6747.

Sincerely,

A handwritten signature in black ink, appearing to read "W. Gwin Tate III".

W. GWIN TATE III  
Associate Bridge Management Specialist  
U.S. Coast Guard  
By direction

Enclosures

## Federal Highway Administration, DOT

§ 650.805

(d) If the unobligated balance of HBRRP funds for the State is less than \$10 million, the HBRRP modifier is 1.0. This will limit the effect of the modifier on those States with small apportionments or those who may be accumulating funds to finance a major bridge.

[46 FR 52296, Nov. 17, 1983; 48 FR 53407, Nov. 28, 1983]

### § 650.709 Special considerations.

(a) The selection process for new discretionary bridge projects will be based upon the rating factor priority ranking. However, although not specifically included in the rating factor formula, special consideration will be given to bridges that are closed to all traffic or that have a load restriction of less than 10 tons. Consideration will also be given to bridges with other unique situations, and to bridge candidates in states which have not previously been allocated discretionary bridge funds.

(b) The need to administer the program from a balanced national perspective requires that the special cases set forth in paragraph (a) of this section and other unique situations be considered in the discretionary bridge candidate evaluation process.

(c) Priority consideration will be given to the continuation and completion of bridge projects previously begun with discretionary bridge funds.

## Subpart H—Navigational Clearances for Bridges

SOURCE: 52 FR 28139, July 28, 1987, unless otherwise noted.

### § 650.801 Purpose.

The purpose of this regulation is to establish policy and to set forth coordination procedures for Federal-aid highway bridges which require navigational clearances.

### § 650.803 Policy.

It is the policy of FHWA:

(a) To provide clearances which meet the reasonable needs of navigation and provide for cost-effective highway operations,

(b) To provide fixed bridges wherever practicable, and

(c) To consider appropriate pier protection and vehicular protective and warning systems on bridges subject to ship collisions.

### § 650.805 Bridges not requiring a USCG permit.

(a) The FHWA has the responsibility under 23 U.S.C. 144(h) to determine that a USCG permit is not required for bridge construction. This determination shall be made at an early stage of project development so that any necessary coordination can be accomplished during environmental processing.

(b) A USCG permit shall not be required if the FHWA determines that the proposed construction, reconstruction, rehabilitation, or replacement of the federally aided or assisted bridge is over waters (1) which are not used or are not susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce and (2) which are (i) not tidal, or (ii) if tidal, used only by recreational boating, fishing, and other small vessels less than 21 feet in length.

(c) The highway agency (HA) shall assess the need for a USCG permit or navigation lights or signals for proposed bridges. The HA shall consult the appropriate District Offices of the U.S. Army Corps of Engineers if the susceptibility to improvement for navigation of the water of concern is unknown and shall consult the USCG if the types of vessels using the waterway are unknown.

(d) For bridge crossings of waterways with navigational traffic where the HA believes that a USCG permit may not be required, the HA shall provide supporting information early in the environmental analysis stage of project development to enable the FHWA to make a determination that a USCG permit is not required and that proposed navigational clearances are reasonable.

(e) Since construction in waters exempt from a USCG permit may be subject to other USCG authorizations, such as approval of navigation lights and signals and timely notice to local mariners of waterway changes, the USCG should be notified whenever the

proposed action may substantially affect local navigation.

**§ 650.807 Bridges requiring a USCG permit.**

(a) The USCG has the responsibility (1) to determine whether a USCG permit is required for the improvement or construction of a bridge over navigable waters except for the exemption exercised by FHWA in § 650.805 and (2) to approve the bridge location, alignment and appropriate navigational clearances in all bridge permit applications.

(b) A USCG permit shall be required when a bridge crosses waters which are: (1) tidal and used by recreational boating, fishing, and other small vessels 21 feet or greater in length or (2) used or susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce. If it is determined that a USCG permit is required, the project shall be processed in accordance with the following procedures.

(c) The HA shall initiate coordination with the USCG at an early stage of project development and provide opportunity for the USCG to be involved throughout the environmental review process in accordance with 23 CFR part 771. The FHWA and Coast Guard have developed internal guidelines which set forth coordination procedures that both agencies have found useful in streamlining and expediting the permit approval process. These guidelines include (1) USCG/FHWA Procedures for Handling Projects which Require a USCG Permit<sup>1</sup> and (2) the USCG/FHWA Memorandum of Understanding on Coordinating The Preparation and Processing of Environmental Projects.<sup>2</sup>

(d) The HA shall accomplish sufficient preliminary design and consultation during the environmental phase of

project development to investigate bridge concepts, including the feasibility of any proposed movable bridges, the horizontal and vertical clearances that may be required, and other location considerations which may affect navigation. At least one fixed bridge alternative shall be included with any proposal for a movable bridge to provide a comparative analysis of engineering, social, economic and environmental benefit and impacts.

(e) The HA shall consider hydraulic, safety, environmental and navigational needs along with highway costs when designing a proposed navigable waterway crossing.

(f) For bridges where the risk of ship collision is significant, HA's shall consider, in addition to USCG requirements, the need for pier protection and warning systems as outlined in FHWA Technical Advisory 5140.19, Pier Protection and Warning Systems for Bridges Subject to Ship Collisions, dated February 11, 1983.

(g) Special navigational clearances shall normally not be provided for accommodation of floating construction equipment of any type that is not required for navigation channel maintenance. If the navigational clearances are influenced by the needs of such equipment, the USCG should be consulted to determine the appropriate clearances to be provided.

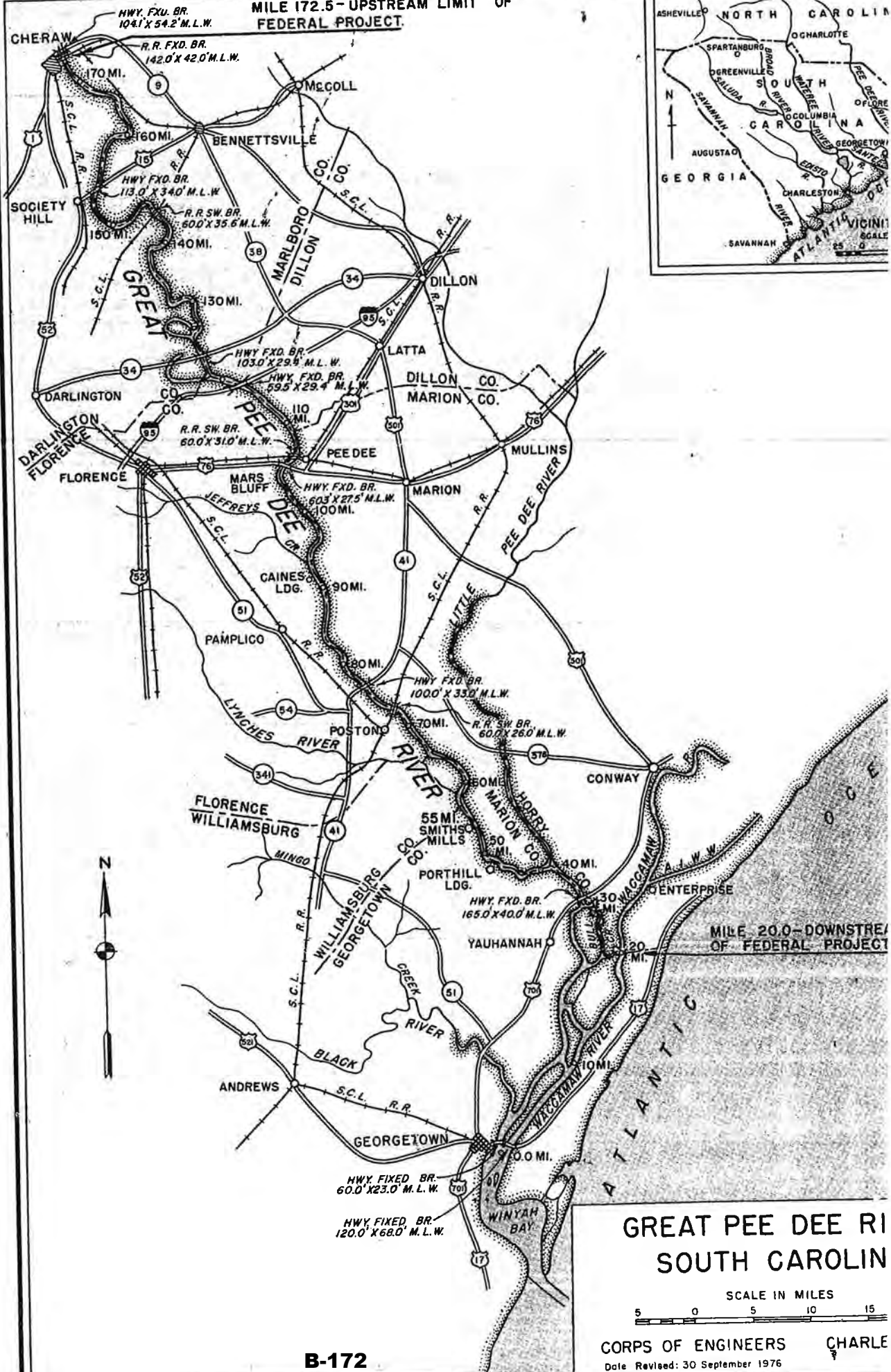
(h) For projects which require FHWA approval of plans, specifications and estimates, preliminary bridge plans shall be approved at the appropriate level by FHWA for structural concepts, hydraulics, and navigational clearances prior to submission of the permit application.

(i) If the HA bid plans contain alternative designs for the same configuration (fixed or movable), the permit application shall be prepared in sufficient detail so that all alternatives can be evaluated by the USCG. If appropriate, the USCG will issue a permit for all alternatives. Within 30 days after award of the construction contract, the USCG shall be notified by the HA of the alternate which was selected. The USCG procedure for evaluating permit applications which contain alternates is presented in its Bridge Administration

<sup>1</sup>This document is an internal directive in the USCG Bridge Administration Manual, Enclosure 1a, COMDT INST M16590.5, change 2 dated Dec. 1, 1983. It is available for inspection and copying from the U.S. Coast Guard or the Federal Highway Administration as prescribed in 49 CFR part 7, appendices B and D.

<sup>2</sup>FHWA Notice 6640.22 dated July 17, 1981, is available for inspection and copying as prescribed in 49 CFR part 7, appendix D.



MILE 172.5-UPSTREAM LIMIT OF  
FEDERAL PROJECT.

### BRIDGE PROJECT QUESTIONNAIRE

The Coast Guard must determine whether or not a Bridge Permit is required for your project. By you providing full and accurate information on this form, you will assist in our decision making process. Errors or misstatements may require redesigning of your bridge, and may subject you to civil penalty sanctions. If you have any questions regarding this form, do not hesitate to contact the Bridge Administration Branch at the letterhead address or phone number. Regarding the site of your proposed bridge, please provide the following information:

#### NAVIGATION DATA:

1. Name of waterway: \_\_\_\_\_
  - 1a. At proposed site, mileage along waterway measured from mouth or confluence \_\_\_\_\_
  - 1b. Waterway is a tributary of \_\_\_\_\_ at mile \_\_\_\_\_
2. Geographical Location: \_\_\_\_\_  
(Road Number, City, County, State)
3. Township, section and range, if applicable: \_\_\_\_\_
4. Is the waterway tidally influenced at proposed bridge site? \_\_\_\_ Range of tide? \_\_\_\_
5. Depth and width of waterway at proposed bridge site:

	Depth	Width
At Mean High Tide	_____	_____
At Mean Low Tide	_____	_____
6. Check the type(s) of present vessel traffic on the waterway:  
Canoe \_\_\_\_\_ Rowboat \_\_\_\_\_ Small Motorboat \_\_\_\_\_ Cabin Cruiser \_\_\_\_\_  
Houseboat \_\_\_\_\_ Pontoon Boat \_\_\_\_\_ Sailboat \_\_\_\_\_ Tug and tow \_\_\_\_\_ None \_\_\_\_\_
- 6a. Provide the vertical clearance required for the largest vessel using the waterway \_\_\_\_\_
- 6b. Provide a photograph of each type vessel using the waterway.
7. Are these waterways used to transport interstate or foreign commerce? Yes \_\_\_\_ No \_\_\_\_
  - 7a. Are these waters susceptible to use in their natural condition, or by reasonable improvement, as a means to support interstate or foreign commerce? Yes \_\_\_\_ No \_\_\_\_
  - 7b. To your knowledge, are there any planned waterway improvements to permit larger vessels to navigate? \_\_\_\_\_. If so, what are they? \_\_\_\_\_

8. Are there any natural or manmade obstructions, bridges, dams, weirs, etc. downstream or upstream? Yes \_\_\_\_\_ No \_\_\_\_\_

8a. If yes, provide upstream/downstream location with relation to the proposed bridge.  
\_\_\_\_\_

8b. If the obstruction(s) are bridges, provide vertical clearance at mean high water and mean low water and horizontal clearance normal to axis of the waterway. Vertical Clearance:

MHW \_\_\_\_\_ MLW \_\_\_\_\_ Horizontal clearance \_\_\_\_\_

8c. Provide a photograph of the bridge(s) from the waterway showing channel spans.

9. Will the proposed structure replace an existing bridge? \_\_\_\_\_

9a. Provide permit number and issuing agencies of permits for the bridge(s) to be replaced.  
\_\_\_\_\_

9b. Provide the vertical clearance above mean high water and mean low water and the horizontal clearance normal to axis of waterway. Vertical Clearance: MHW \_\_\_\_\_ MLW \_\_\_\_\_  
Horizontal Clearance \_\_\_\_\_

9c. Provide a photograph of the to-be-replaced bridge from the waterway, showing the channel span(s).

10. List the names and addresses of persons who property adjoins bridge right of way.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

11. List names and addresses/location of marinas, marine repair facilities, public boat ramps, private piers/docks along waterway within ½ mile of site.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

12. Attach a location map and plans for the proposed bridge; show the vertical clearances above mean high water and mean low water and the horizontal clearance normal to axis of the waterway.

13. Attach three (3) photographs taken at the proposed bridge site: one looking upstream, one looking downstream, and one looking along the alignment centerline across the bridge site.

DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_  
Proposed Bridge Owner or Agent

ATTACHMENTS: Location Map  
Bridge Plans  
Photographs  
Additional pages of names and addresses (if necessary)

**United States Department of Commerce  
National Oceanic and Atmospheric  
Administration**



**UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration**

NATIONAL MARINE FISHERIES SERVICE  
Southeast Regional Office  
9721 Executive Center Drive North  
St. Petersburg, FL 33702  
(727) 570-5312, FAX 570-5517  
<http://sero.nmfs.noaa.gov>

JAN - 7

Dear Colleague:

The National Marine Fisheries Service (NOAA Fisheries) Protected Resources Division has reviewed your letter pursuant to section 7(a)(2) of the Endangered Species Act (ESA) concerning replacement of U.S. Route 701 bridges over Great Pee Dee River, Pee Dee overflow, and Lake Yauhannah in Horry and Georgetown Counties, South Carolina (SCDOT file no. 22.124B, project no. BR-BR88(044), PIN no. 30688)

\_\_\_\_ **There are no ESA-listed species** or designated critical habitat under our purview in the action area.

\_\_\_\_ **We cannot determine** impacts to threatened or endangered species, or designated critical habitat, under NOAA Fisheries' purview because the letter lacks sufficient information to evaluate the project. **Enclosed are guidelines** to conduct a proper biological evaluation.

\_\_\_\_ **Please provide a letter** from the lead federal action agency designating you to conduct ESA section 7 consultation with this office.

  x   **Enclosed is a list** of federally-protected species under the jurisdiction of NOAA Fisheries for the state of **Georgia**. Biological information on federally-protected species and candidate species can be found at the following website addresses: [http://www.nmfs.noaa.gov/prot\\_res/prot\\_res.html](http://www.nmfs.noaa.gov/prot_res/prot_res.html); <http://noflorida.fws.gov/SeaTurtles/seaturtle-info.htm>; <http://endangered.fws.gov/wildlife.html#Species>; <http://www.cmc-ocean.org/main.php3>; <http://floridaconservation.org/psm/turtles/turtle.htm>; [http://obis.env.duke.edu/data/sp\\_profiles.php](http://obis.env.duke.edu/data/sp_profiles.php); [www.mote.org/~colins/Sawfish/SawfishHomePage.html](http://www.mote.org/~colins/Sawfish/SawfishHomePage.html); [www.floridasawfish.com](http://www.floridasawfish.com); [www.flmnh.ufl.edu/fish/sharks/InNews/sawprop.htm](http://www.flmnh.ufl.edu/fish/sharks/InNews/sawprop.htm); Gulf sturgeon critical habitat rule and maps (<http://alabama.fws.gov/gs/>); <http://www.cccturtle.org>;

\_\_\_\_ **It is NOAA Fisheries' opinion that the project will have no effect** on listed species or critical habitat protected by the ESA under NOAA Fisheries' purview. No further consultation with NOAA Fisheries pursuant to section 7(a)(2) of the ESA is required unless the project description changes.

Consultation with NOAA Fisheries, Habitat Conservation Division (HCD), pursuant to the Magnuson-Stevens Fishery Conservation and Management Act's requirements for essential fish habitat consultation may be required. Please contact HCD at (727) 570-5317. If you have any ESA questions, please contact our ESA section 7 coordinator, Eric Hawk, at (727) 570-5312, or by e-mail at [eric.hawk@noaa.gov](mailto:eric.hawk@noaa.gov).

  x   **Other:** The federally listed shortnose sturgeon is known to inhabit areas of the Pee Dee River.

Sincerely,

David M. Bernhart  
Assistant Regional Administrator  
for Protected Resources

  x   Enclosure  
Ref: I/SER/2004/  
File:1514-22.L3 2004





Endangered and Threatened Species and Critical Habitats  
under the Jurisdiction of the NOAA Fisheries



Georgia

Listed Species	Scientific Name	Status	Date Listed
<b>Marine Mammals</b>			
blue whale	<i>Balaenoptera musculus</i>	Endangered	12/02/70
finback whale	<i>Balaenoptera physalus</i>	Endangered	12/02/70
humpback whale	<i>Megaptera novaengliae</i>	Endangered	12/02/70
right whale	<i>Eubalaena glacialis</i>	Endangered	12/02/70
sei whale	<i>Balaenoptera borealis</i>	Endangered	12/02/70
sperm whale	<i>Physeter macrocephalus</i>	Endangered	12/02/70
<b>Turtles</b>			
green sea turtle	<i>Chelonia mydas</i>	Threatened <sup>1</sup>	07/28/78
hawksbill sea turtle	<i>Eretmochelys imbricata</i>	Endangered	06/02/70
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	Endangered	12/02/70
leatherback sea turtle	<i>Dermochelys coriacea</i>	Endangered	06/02/70
loggerhead sea turtle	<i>Caretta caretta</i>	Threatened	07/28/78
<b>Fish</b>			
shortnose sturgeon	<i>Acipenser brevirostrum</i>	Endangered	03/11/67
smalltooth sawfish	<i>Pristis pectinata</i>	Endangered	04/01/03

**Designated Critical Habitat**

Right whale: Between 31°15'N (approximately the mouth of the Altamaha River, Georgia) and 30°15'N (approximately Jacksonville, Florida) from the coast out to 15 nautical miles offshore; the coastal waters between 30°15'N and 28°00'N (approximately Sebastian Inlet, Florida) from the coast out to 5 nautical miles.

**Species Proposed for Listing**

None

**Proposed Critical Habitat**

None

<sup>1</sup> Green turtles are listed as threatened, except for breeding populations of green turtles in Florida and on the Pacific Coast of Mexico, which are listed as endangered



## Georgia

Candidate Species <sup>2</sup>	Scientific Name
none	

Species of Concern <sup>3</sup>	Scientific Name
<b>Fish</b>	
Atlantic sturgeon	<i>Acipenser oxyrhynchus oxyrhynchus</i>
dusky shark	<i>Carcharhinus obscurus</i>
goliath grouper	<i>Epinephelus itajara</i>
night shark	<i>Carcharhinus signatus</i>
sand tiger shark	<i>Odontaspis taurus</i>
speckled hind	<i>Epinephelus drummondhayi</i>
Warsaw grouper	<i>Epinephelus nigritus</i>
white marlin	<i>Tetrapturus albidus</i>

<sup>2</sup> The Candidate Species List has been renamed the Species of Concern List. The term "candidate species" is limited to species that are the subject of a petition to list and for which NOAA Fisheries has determined that listing may be warranted (69 FR 19975).

<sup>3</sup> Species of Concern are not protected under the Endangered Species Act, but concerns about their status indicate that they may warrant listing in the future. Federal agencies and the public are encouraged to consider these species during project planning so that future listings may be avoided.



## **Agency E-mail and Telephone Responses**

## Harry Parrish

---

**From:** Richard Ciccolella [rciccolella@armenv.com]  
**Sent:** Monday, January 10, 2005 11:16 AM  
**To:** Harry Parrish  
**Subject:** Fw: Shortnose Sturgeon

Harry,  
See string below for Dr. Mark Collins' reply to my sturgeon question regarding migration.

Richard Ciccolella  
ARM Environmental Services, Inc.

----- Original Message -----

**From:** Mark Collins  
**To:** Richard Ciccolella  
**Sent:** Monday, January 10, 2005 10:14 AM  
**Subject:** RE: Shortnose Sturgeon

Shortnose sturgeon definitely occur in the PeeDee. Based on our telemetry work, they make a spawning migration past that bridge (upriver and then downriver) during January-midApril. I would suggest that period be a window of no blasting, piling, or other loud construction activity that might disrupt the migration.

Mark R. Collins, Ph.D.  
Marine Resources Research Institute  
SC Dept. of Natural Resources  
P.O.Box 12559  
Charleston, SC 29422

843-953-9815

-----Original Message-----

**From:** Richard Ciccolella [mailto:rciccolella@armenv.com]  
**Sent:** Friday, January 07, 2005 4:14 PM  
**To:** Mark Collins  
**Cc:** Harry Parrish  
**Subject:** Shortnose Sturgeon

Dr. Mark Collins  
SCDNR  
Marine Resources Division  
217 Ft. Johnson Road  
P.O. Box 12559  
Charleston, SC 29412

Dr. Collins,  
We are assisting Tuhin Basu & Associates with the collection of data necessary for the completion of an SCDOT Environmental Assessment related to the proposed replacement of the US 701 Bridges over the Great Pee Dee River, Pee Dee Overflow, and Lake Yauhannah, between Georgetown and Horry Counties.

The shortnose sturgeon is listed for both of these counties, and I understand that it may potentially occur in the Great Pee Dee River. I also understand that the sturgeon would likely make seasonal migrations upstream and downstream. I wanted to see if you could provide some input as to when

the sturgeon would likely be present in the study area, as well as any other information that may be helpful in the planning stages of this project. I have attached location maps of the project area.

I sincerely appreciate your time. Please feel free to contact me at the number below or my e-mail address.

Thank you,

Richard Ciccolella  
ARM Environmental Services, Inc.  
1210 First Street South Ext.  
Columbia, SC 29209  
(803) 783-3314  
(803) 783-2587  
[rciccolella@armenv.com](mailto:rciccolella@armenv.com)

Project Area Location Maps

## Harry Parrish

---

**From:** Richard Ciccolella [rciccolella@armenv.com]  
**Sent:** Wednesday, January 12, 2005 9:06 AM  
**To:** Harry Parrish  
**Subject:** Fw: US 701 Environmental Assessment

Harry, attached is a response I recieved from Craig Sasser, the Waccamaw NWR manager.

Richard Ciccolella  
ARM Environmental Services, Inc.

----- Original Message -----

**From:** Marshall\_Sasser@fws.gov  
**To:** Richard Ciccolella  
**Sent:** Tuesday, January 11, 2005 7:18 PM  
**Subject:** Re: US 701 Environmental Assessment

Richard,

I am sorry that I missed your call last week. I should be in the office on Wednesday if you have a chance to call. I have contacted several state and federal biologists for all known nesting and/or species occurrence data. One of the longest known nesting locations on the great Pee Dee River for the American swallow-tailed kite is in the forested wetlands adjacent to the Pee Dee bridge (east side) on refuge lands. I look forward to discussing the details with you soon.

Thanks,

Craig

Marshall Craig Sasser  
Refuge Manager - Waccamaw NWR  
1601 North Fraser Street  
P.O. Box 1439  
Georgetown, SC 29440

843/527- 8069 Office  
843/527- 8494 Fax

"Richard Ciccolella" <rciccolella@armenv.com>

01/07/2005 09:25 AM

Please respond to "Richard Ciccolella" <rciccolella@armenv.com>
--

To "Craig Sasser" <Marshall\_Sasser@fws.gov>

cc

Subject US 701 Environmental Assessment

1-7-05

2/25/2005

**B-182**

Craig,

We are assisting Tuhin Basu and Associates with the collection of data necessary for the completion of an EA for the proposed US 701 bridge replacement project over the Great Pee Dee River, Pee Dee Overflow, and Lake Yauhannah. I think Natalie Adams has contacted you previously.

I need to start looking into the wetland and endangered species issues as soon as possible, and would need to do field reconnaissance/delineation along the project corridor. I definitely wanted to check with you prior to initiating field work, and would like to get your input regarding any known occurrences of T/E species in that area.

I will try to call you later today, but wanted to give you a heads up via e-mail. Also feel free to call me at the number below.

Thanks,

Richard Ciccolella  
ARM Environmental Services, Inc.  
1210 First Street South Ext.  
Columbia, SC 29209  
(803) 783-3314  
(803) 783-2587  
[rciccolella@armenv.com](mailto:rciccolella@armenv.com)

## **RECORD OF TELEPHONE CONVERSATION**

DATE OF CONVERSATION: 1-14-05 (11:00 AM)

PERSON CALLED: Marshall Craig Sasser (Waccamaw NWR Manager)

PERSON MAKING CALL: Richard Ciccolella

SUBJECT: T & E and Refuge Issues

### **DISCUSSION:**

*Discussed T/E species in the 701 area. The refuge owns most of the property along the corridor.*

*Longest known nesting location for the American Swallow Tailed Kite is located in the forested wetlands east of Pee Dee bridge (near "Calford's Swamp"?). Have documented the nesting area for about 4-5 years. Craig has mapped some of this and may be able to provide. The kite is not currently listed as T or E, but is a state "species of concern".*

*Potential bald eagle nest in Yauhannah lake. Thinks it's probably outside our study area, but they have not actually located the nest. There have been reports of a pair of eagles in the this area that have been displaying territorial behavior.*

*Wood Storks use the refuge, but are not known to use the 701 study area (150 feet on either side of 701). Has seen white ibis near Calford's lake, and they are pretty close.*

*Craig does not feel that the listed plants (ie Pond Berry and Canby's Dropwort) would likely be in the study area.*

*Craig has recently found some mussel species in the back end of "Calford's Lake?", near a beaver dam. This is probably close to the study corridor. He has collected some specimens and submitted them to the endangered species office in Charleston. He is waiting to hear back regarding the mussels status. This area is accessible from the landing on Bulls Creek (off of Bucksport Road). Not much is known about mussels in the Pee Dee.*

*Briefly discussed the SCDOT / FWS corridor agreement regarding the 4F buffer. I told him I had a copy of the FWS EIS with the letter in the appendix. He said he may also have a letter regarding an additional agreement related to the visitors center property, and the modification of SCDOT row.*

*Craig feels that the kites and the mussels may be the biggest issues.*

**RECORD OF TELEPHONE CONVERSATION**

DATE OF CONVERSATION: 2-1-05 6:39am

PERSON CALLED: Richard Ciccolella. (ARM)

PERSON MAKING CALL: Gwin Tate – US Coast Guard (305) 415-6747

SUBJECT: Federal Project Channel definition

DISCUSSION:

*Mr. Tate left message regarding the definition of "Federal Project Channel". I had asked him for a definition earlier (for Harry Parrish), and he had said he did not know, but would find out (he is new to the bridge section).*

*His phone message indicated that he has not been able to find a definition of this term. He has searched the various regulations and can't find a definition. He says it is a Corps of Engineers term, but he has spoken with at least 6 Corps personell and can not get an answer. He says he has put in approximately 6 hours on this so far, and that he will keep working on it.*



**RECORD OF TELEPHONE CONVERSATION**

DATE OF CONVERSATION: 1-25-05

PERSON CALLED: Gwin Tate – US Coast Guard (305) 415-6747

PERSON MAKING CALL: Richard Ciccolella. (ARM)

SUBJECT: Coast Guard Bridge Permits

DISCUSSION:

*Called Mr. Tate at 1450. His letter has been reviewed by senior personell. He is making revisions, and should get it out tomorrow.*

*The Pee Dee River is navigable at this point, so it appears that it would be a permit situation. They are doing research on the Pee Dee Overflow and Lake Yauhannah.*

**RECORD OF TELEPHONE CONVERSATION**

DATE OF CONVERSATION: 1-25-05

PERSON CALLED: Richard Ciccolella. (ARM)

PERSON MAKING CALL: Gwin Tate – US Coast Guard (305) 415-6747

SUBJECT: Coast Guard Bridge Permits

DISCUSSION:

*Mr. Tate called me at 9:15 AM in response to a message I had left for Greg Shapley (USCG – Commander 7<sup>th</sup> CG District) on 1-24-05.*

*Mr. Tate said that if the body of water is navigable a Coast Guard Permit is required. However, regardless of navigability, if federal money is involved a CG permit **may** be required. In the case of a federally assisted project, the determination as to whether or not a permit is required would be made by the Federal Highway Administration (FHA).*

*Mr. Tate said that he is drafting a response letter to Tuhin Basu & Associates to more fully explain the situation. He will have the letter reviewed by more senior CG personnel and should get the letter out today. He will fax me a copy of the letter later today.*

*Mr. Tate is in the office from 6:30 to 3:00.*

**RECORD OF TELEPHONE CONVERSATION**

DATE OF CONVERSATION: 1-25-05

PERSON CALLED: Mary Hope Glenn – Corps of Engineers (843)329-8044

PERSON MAKING CALL Richard Ciccolella. (ARM)

SUBJECT: Corps of Engineers Permits

DISCUSSION:

*I called Ms. Glenn at 1410 to follow up on a message I left for her on 1-24-05. Discussed potential permit situation. I told her I thought it would need a section 404 wetland permit (with 401 water quality certification and Coastal Zone certification). She said that Section 10 would apply, but it doesn't matter since it would all be one joint permit application.*

*She also said that the Pee Dee is navigable at this point for Corps purposes, but she is not sure what criteria the Coast Guard uses for navigability determinations.*

*The permit the SCDOT needs may fall under the SCDOT general permit, depending on amount of fill, etc., but the Corps will make the permit determinations based on the application received from the SCDOT.*

**RECORD OF TELEPHONE CONVERSATION**

DATE OF CONVERSATION: 2-7-05

PERSON CALLED: Mark Caldwell (US Fish & Wildlife – SCDOT Liaison)

PERSON MAKING CALL: Richard Ciccolella

SUBJECT: Letter of Intent / FWS Response

DISCUSSION:

*Called to touch base w/ Mr. Caldwell regarding December 17, 2004 Letter of Intent from TBA. He found it in his files and stated that he had decided to wait for the circulation of the EA / Biological Assessment before commenting. He was also familiar with the project from speaking with Ed Frierson (SCDOT) earlier. I told him we had obtained the endangered species county lists from the USFWS website, and had spoken with the refuge manager, and should have good information for the report.*

**RECORD OF TELEPHONE CONVERSATION**

DATE OF CONVERSATION: 2-11-05 (10:50)

PERSON CALLED: Leo Rose (SCDNR – 803-734-1280)

PERSON MAKING CALL: Richard Ciccolella

SUBJECT: Letter of Intent / Repsonse

**DISCUSSION:**

*Called to touch base w/ Mr. Rose regarding December 17, 2004 Letter of Intent from TBA. He found the letter in his files. He said he typically provides response comments if the letter specifically requests a response. Said he can provide response, but has several projects on his desk right now.*

*We discussed the proposed project briefly, and I told him we were in the data collection phase and had obtained the county lists of threatened and endangered species. He also mentioned the Big Eared Bat, which has two SCDNR listed occurrences at the US 701 bridges.*

*We discussed the fact that there would be an interagency meeting coming up and he said the formal meetings usually occur within the first few days of a month in Columbia or Charleston; however, some meetings occur on the project site.*

*He will try to get a letter out, but also said he can bring comments to the interagency meeting when that occurs. He may also discuss the project with the USFWS, as the corridor goes through the Waccamaw refuge.*

**RECORD OF TELEPHONE CONVERSATION**

DATE OF CONVERSATION: 2-11-05 (10:35)

PERSON CALLED: Henry Phillips (DHEC Bureau of Air Qual. – 803-898-3260)

PERSON MAKING CALL: Richard Ciccolella

SUBJECT: Letter of Intent / Repsonse

DISCUSSION:

*Called to touch base w/ Mr. Phillips regarding December 17, 2004 Letter of Intent from TBA. He said that he had received the letter and had passed it on to his staff. He said that they had not responded because the letter of intent appeared to be preliminary and they thought they would be receiving a more detailed package. However, he also said even if they got a more detailed package their response would be general, and that the corridor area **is in attainment and therefore is not subject to Transportation Conformity.***

*Mr. Phillips also indicated that this phone conversation could constitute his response if that was all that was needed from his department.*

**RECORD OF TELEPHONE CONVERSATION**

DATE OF CONVERSATION: 2-11-05 (9:25) – He called back at 9:50

PERSON CALLED: John Litton (DHEC Div. Of Waste Mgmt – 803-896-4172)

PERSON MAKING CALL: Richard Ciccolella

SUBJECT: Letter of Intent / Repsonse

**DISCUSSION:**

*Called to touch base w/ Mr. Litton regarding December 17, 2004 Letter of Intent from TBA. I described letter to him and he said he would look into it and contact a staff member who typically handles responses to these letters. He said he would likely call back in an hour or so.*

*Mr. Litton called back at 9:50. He has spoken with a member of his staff (David -), who doesn't have a recollection of the letter. I told him I would fax the letter to him (Mr. Litton) at fax #896-4002.*

*I also decsribed the corridor to Mr. Litton, and he said that he is not aware of any RCRA TSD sites in the area. However, he did mention that we potentially should also contact other DHEC offices, including the CERCLA people and the UST people.*



**FACSIMILE TRANSMITTAL**

**TO: John Litton      FAX#: 896-4002    #PAGES: 3 (Incl. Cover)**

**COMPANY / AGENCY: SCDHEC Bureau of Land and Waste Management**

**FROM: Richard Ciccolella**

**RE:    US 701 Bridges over Great Pee Dee River, Pee Dee Overflow,  
         And Lake Yauhannah in Horry / Georgetown Counties, SC  
         Letter of Intent, Dated December 17, 2004**

**DATE: February 11, 2005**

**COMMENTS:**

**Mr. Litton,**

**Thank you for your help today. Attached please find a copy of the  
December 17, 2004 letter of intent from Tuhin Basu and Associates, Inc.  
Any comments you can provide would be much appreciated.**

**- Richard Ciccolella**

## Harry Parrish

---

**From:** Richard Ciccolella [rciccolella@armenv.com]  
**Sent:** Wednesday, February 16, 2005 11:16 AM  
**To:** Harry Parrish  
**Subject:** Fw: FW: Waccamaw Survey - Question from Refuge Manager

Harry - Please see string of messages below. Craig Sasser, the refuge manager, is asking about the surveying work being conducted by BP Barber. They would like to see if they can get a copy of the survey, and they have apparently also discussed with Wayne Hall the possibility of incorporating a deceleration lane for their visitor center into the 701 design.

May be something to discuss with SCDOT.

Richard Ciccolella  
ARM Environmental Services, Inc.  
1210 First Street South Ext.  
Columbia, SC 29209  
(803) 783-3314  
(803) 783-2587  
[rciccolella@armenv.com](mailto:rciccolella@armenv.com)

----- Original Message -----

**From:** [Marshall\\_Sasser@fws.gov](mailto:Marshall_Sasser@fws.gov)  
**To:** Richard Ciccolella  
**Cc:** [Dale\\_Bailey@fws.gov](mailto:Dale_Bailey@fws.gov) ; Dahnert, Roger  
**Sent:** Wednesday, February 16, 2005 10:00 AM  
**Subject:** Re: FW: Waccamaw Survey

Richard,

See message below. Is there any way that we can get an electronic copy of this survey. We recently met with Wayne Hall from SCDOT and during this meeting, Wayne mentioned that SCDOT might be able to combine a deceleration lane for our facility with the construction needs of the overall project.

Thanks,

Craig

Marshall Craig Sasser  
Refuge Manager - Waccamaw NWR  
1601 North Fraser Street  
P.O. Box 1439  
Georgetown, SC 29440

843/527- 8069 Office  
843/527- 8494 Fax

"Dahnert, Roger" <[Roger.Dahnert@Woolpert.com](mailto:Roger.Dahnert@Woolpert.com)>

To: [Marshall\\_Sasser@fws.gov](mailto:Marshall_Sasser@fws.gov)

02/15/2005 02:08 PM

cc: [Dale\\_Bailey@fws.gov](mailto:Dale_Bailey@fws.gov)

Subject FW: Waccamaw Survey

Craig,

This is a great idea. Please see if it possible to get an electronic copy of the referenced survey. If you have questions, please let us know.

Roger A. Dahnert, AIA  
Woolpert Architecture  
704-525-6284  
Fax: 704-525-8529  
Mobile: 704-562-5330

>  
> From: Pack, Andrew  
> Sent: Tuesday, February 15, 2005 7:50 AM  
> To: Dahnert, Roger  
> Cc: Finke, Bill; Lord, Stephen  
> Subject: Waccamaw Survey  
>  
>  
> Roger:  
>  
> When we were at the Waccamaw project site the other week, I noticed that  
> BP Barber were performing surveying work along the highway. This was for  
> either for the proposed highway improvements or for future utilities. Not  
> even sure who they are under contract with, but it maybe a good idea to  
> have our client research and see if they could obtain copy of any survey  
> (fieldwork) that they are preparing from the owner/ agency. We have  
> limited budget for the survey. Our surveyors have in their scope and fee  
> to include surveying along the roadway, but if they (USFWS) could obtain,  
> it may assist with costs on surveying services, so we could concentrate  
> our survey within the property line (within the 5 ac).  
>  
> BP Barber & Associates, Inc. Phone number is (803) 254-4400. Do not have a  
> contact person.  
>  
> Andrew R. Pack, RLA, ASLA  
> Associate  
> Woolpert, Inc.  
> Planning & Design  
> 8731 Red Oak Boulevard . Suite 101 . Charlotte, NC 28217  
> phone 704.525.6284 x247  
>

# **Floodplains Coordination**



**Tuhin Basu & Associates, Inc.**  
7921 Jones Branch Drive, Suite G08  
McLean, VA 22102

703-918-9870  
FAX: 703-918-9878  
www.tbaengineering.com

October 9, 2009

Mr. Mike Young  
FEMA Floodplain Coordinator  
Georgetown County Building Division  
120 Broad Street  
Georgetown, SC 29442

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Great Pee Dee River Overflow, and Lake Yauhannah in  
Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mr. Young:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently nearing completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

The project hydraulic analysis and design is being carried out based on SCDOT guidelines and applicable FEMA regulations. The referenced project area is Zone A floodplain without a detailed studied area. Based on the designation, we are not required to coordinate with FEMA as long as the proposed project will not cause resulting backwater above 1.0 ft. The completed one-dimensional hydraulic analysis indicates that the resulting backwater will be within that limit. We would like to share the attached one-dimensional hydraulic analysis with the completed SCDOT's Floodplains Checklist with you and your staff. We will perform a two-dimensional hydraulic analysis for the project when the design of the bridges will be advanced. The results of the two-dimensional analysis will be used to estimate scour and design scour countermeasures for the proposed bridges.

We are pleased to share the attached information with you. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHIN BASU & ASSOCIATES, INC.**

Tuhin K. Basu, PE  
Project Manager

CC: Bener Amado (SCDOT)



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October 9, 2009

Mr. Mike Odea  
Flood Control Officer  
Horry County Code Enforcement  
Government & Justice Center – Suite 1D09  
1301 Second Avenue  
Conway, SC 29526

**RE: Replacement of U.S. Route 701 Bridges over Great Pee Dee River,  
Great Pee Dee River Overflow, and Lake Yauhannah in  
Horry/Georgetown Counties, SC  
SCDOT File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688**

Dear Mr. Odea:

Our firm, on behalf of the South Carolina Department of Transportation (SCDOT), is currently nearing completion of an Environmental Assessment (EA) related to the above referenced project. The project will involve replacing the existing bridges on US 701 from Lake Yauhannah in Georgetown County, South Carolina, to the Great Pee Dee River Overflow in Horry County, South Carolina. There are a total of three bridges to be replaced and new roadway alignment will be necessary. The study area consists of a corridor that is approximately 2 miles long on the existing US 701 alignment from a point near the US 701 / Lucas Bay Road intersection, to a point near the US 701 / Trinity Road intersection. The project corridor crosses the above referenced water bodies, as well as extensive flood plain forest.

The project hydraulic analysis and design is being carried out based on SCDOT guidelines and applicable FEMA regulations. The referenced project area is Zone A floodplain without a detailed studied area. Based on the designation, we are not required to coordinate with FEMA as long as the proposed project will not cause resulting backwater above 1.0 ft. The completed one-dimensional hydraulic analysis indicates that the resulting backwater will be within that limit. We would like to share the attached one-dimensional hydraulic analysis with the completed SCDOT's Floodplains Checklist with you and your staff. We will perform a two-dimensional hydraulic analysis for the project when the design of the bridges will be advanced. The results of the two-dimensional analysis will be used to estimate scour and design scour countermeasures for the proposed bridges.

We are pleased to share the attached information with you. Please do not hesitate to contact us should you have any questions or need additional information.

Sincerely,

**TUHIN BASU & ASSOCIATES, INC.**

Tuhin K. Basu, PE  
Project Manager

CC: Bener Amado, SCDOT

# **Agency Meeting Minutes**





**Tuhin Basu & Associates, Inc.**  
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McLean, Virginia 22102

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## MEETING MINUTES

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**MEETING DATE:** April 28, 2005

**MEETING LOCATION:** US 701 Project Site

**TO:** Attendees (Listed Below)

**FROM:** Harry Parrish

**PROJECT:** Replacement of US 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow and Lake Yauhannah  
SC File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688

**SUBJECT:** Agency Field Meeting

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The purpose of the field meeting was to introduce and describe the proposed US 701 Bridge Replacement project to the various regulatory and government agencies and also obtain comments and concerns from the agencies. The participants initially met at the Pee Dee Grocery at the northern end of the project and proceeded to the Great Pee Dee River boat landing to discuss the project. The following people and their affiliation were in attendance:

<u>Name</u>	<u>Firm</u>	<u>Email Address</u>	<u>Phone No.</u>
Rob Hamzy	SCDOT	HamzyRA@scdot.org	803-737-1616
Wayne Hall	SCDOT	halljw@dot.state.sc.us	803-737-1872
J. Shane Belcher	FHWA	Jeffrey.belcher@fhwa.dot.gov	803-253-3187
Hamilton Duncan	FHWA	Hamilton.Duncan@fhwa.dot.gov	803-253-3881
Mark Caldwell	U.S. Fish and Wildlife Service	Mark_Caldwell@fws.gov	843-727-4707
Craig Sasser	U.S. Fish and Wildlife Service	Marshall_Sasser@fws.gov	
Leo Rose	SCDNR	RoseL@dnr.sc.gov	803-734-1280
Jeff Thompson	SCDHEC-OCRM	thompsdj@dhc.sc.gov	843-744-5838
Kay Davy	NOAA – Nat'l Marine Fisheries	Kay.davy@noaa.gov	843-953-7202
David Kelley	SC Dept. of Archives and History	Kelly@scdah.state.sc.us	803-896-6184
Alan Wrenn	Horry County	wrenna@horrycounty.org	843-248-1370
Tuhin Basu	Tuhin Basu & Assoc., Inc.	tkbasu@tbaengineering.com	703-447-0082
Harry Parrish	Tuhin Basu & Assoc., Inc.	hcparrish@tbaengineering.com	703-918-9870
Richard Pittenger	ARM Environmental Services, Inc.	rpittenger@armenv.com	803-783-3314
Richard Ciccolella	ARM Environmental Services, Inc.	rciccolella@armenv.com	803-783-3314

The following is a summary of the major discussions held during this agency field meeting.

1. Rob Hamzy and Harry Parrish gave a brief description of the project and explained the primary purpose of the project was to replace the existing conditionally and functionally deficient bridges. The bridges will remain in service until the new structure is built, hence the roadway will be placed

## MEETING MINUTES

April 28, 2005

Page 2 of 4

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on a new alignment generally parallel to the existing structure. Alignments both upstream and downstream of the bridge are currently being studied. The study corridor is limited to a width of 300 feet centered about the existing roadway. The group viewed a general project layout plan prepared by TBA showing two sample alignments.

2. Rob Hamzy stated that based on prior agreements with Fish and Wildlife Services, a 440-foot wide corridor thru the wildlife refuge has been reserved for possible widening/reconstruction of US 701 eliminating the need for a 4f evaluation.
3. It was questioned why the strip of land below the transmission lines is not shown as a wetland in the aerial map viewed by the group. It was explained the wetlands within the study corridor have been delineated and surveyed. Wetland limits outside the study corridor were obtained from the National Wetland Inventory. Two different colors were used in the layout plan to differentiate the surveyed wetlands from the NWI wetlands.
4. It was questioned whether the existing bridge and causeway would be removed after the new bridges and roadway were built. Rob Hamzy indicated the bridges would be removed; however, the existing causeway would remain. Rob further explained that although there are no immediate plans to widen US 701 the Consultant is required to keep the possibility of future widening in mind when developing the alignments for the project.
5. Representatives of SCDNR and FWS voiced their preference to have the new alignment positioned to the north of the existing bridge.
6. Leo Rose questioned whether the new alignment could utilize portions of the existing roadway and fill. It was further stated that this approach is being utilized on the US 601 bridge replacement project over the Congaree. Harry Parrish indicated that this was one of the many alignments that is currently being studied. However, due to the limited length of causeway, it can not be done everywhere and it does result in a zigzag pattern over a very limited distance which is not preferable.
7. Jeff Thompson and Mark Caldwell questioned whether the new roadway fill would be adjacent to or overlap with the existing roadway fill to minimize impacts to the wetlands. They prefer not to see two separate causeways. Harry Parrish showed a couple of conceptual typical roadway sections developed to date. The typical sections in the drawing showed the new roadway fill overlapping the existing roadway fill.
8. Several agencies voiced a preference to eliminate the causeway areas and bridge the entire wetland area. SCDOT indicated the project has limited funds and this alternative could double the cost of the project.
9. Mark Caldwell questioned if the length of the new bridges would be the same as the existing bridge lengths. Harry Parrish indicated the lengths would be similar or slightly longer due to longer span lengths and an increase in superstructure depth.
10. Mark Caldwell also questioned if there were any culverts in the existing causeway. Harry Parrish indicated there are no existing culverts to his knowledge. Mark Caldwell and Leo Rose expressed a desire to have culverts installed in the causeways to permit access by wildlife below the road. The crossing locations should coincide with high ground areas adjacent to the causeway. Leo Rose indicated the culverts could also be used as a flood relief structure. TBA will investigate possible locations for the wildlife crossings.
11. Jeff Thompson suggested instead of culverts, perhaps small bridge sections may be a better solution, given the difficulty in staging construction between the new alignment and the existing causeway. Mark Caldwell stated the ideal solution would be to remove the existing causeway as mitigation for the new roadway.

## MEETING MINUTES

April 28, 2005

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12. It was questioned how the bridge drainage would be handled (i.e., is the project considering direct drainage discharge similar to the existing structures). Harry Parrish indicated the new bridge would be equipped with drainage collection devices instead of the direct discharge method currently used for the existing structure. It was mentioned that sediment erosion and stormwater runoff controls should be considered for the existing fill and new roadway fill. Craig Sasser mentioned that the wetlands in the power line ROW have already been disturbed and are more of a marsh wetland than a forested wetland. If the new roadway is placed to the north of the existing roadway, the wetlands in the vicinity of the powerlines could serve a filtration function for the stormwater runoff.
13. Leo Rose and Mark Caldwell stated there are big eared bats below two of the existing structures and provisions should be made to relocate the bats to appropriate locations since they are on the endangered species list. Possible options are to build bat boxes below the new structures or attempt to relocate the bats to a wooded area.
14. Kay Davy indicated that shortnosed sturgeons and the American Shad are present at the site and must be taken into consideration as part of the project. Wayne Hall mentioned the Department understands that certain steps must be taken to minimize impact to these species, such as a seasonal moratorium on construction in the Great Pee Dee River.
15. Craig Sasser mentioned the swallow-tailed kite has been documented to exist in this area and it is the longest known nesting location in this part of the country. The kite is on the state endangered species list. Craig Sasser also stated the freshwater mussels are present in Cowford's Lake. He has sent specimens to the Charleston USFWS office for identification.
16. Craig Sasser mentioned a beaver dam is present on the south side of the existing roadway fill. This may be a concern if the new roadway is aligned on the south side of the existing roadway.
17. Alan Wrenn of Horry County questioned how the existing boat ramp would be handled as part of the project. He mentioned the local residents feel very strongly about the boat ramp and would not be pleased if the boat ramp is closed. SCDOT indicated the ramp may need to be relocated, but the Department would work with the County in regards to the ramp's final location and minimizing impacts during construction. Alan Wrenn stated the Socastee bridge and the US 17 bridge have a boat ramp concept that the county would prefer to see utilized if the US 701 boat ramp is relocated or reconstructed. Mark Caldwell suggested that a new boat ramp could possibly be constructed on the opposite side of the river, in a non-wetland area.
18. Craig Sasser mentioned the access to the existing boat ramp is fine if you are entering from or exiting towards Horry County, but is very unsafe entering from or exiting towards Georgetown county. The new project should address this issue.
19. Several agencies indicated the new bridge should minimize the number of substructure units. TBA stated that generally the number of substructure units would be reduced with the new bridge.
20. Mark Caldwell questioned why the existing bridges could not be left in place. Rob Hamzy indicated that it becomes a liability issue and is only viable if some other agency is willing to accept liability.
21. In a separate conversation, Rob Hamzy informed Craig Sasser that the Department would work with FWS regarding the request from FWS for the project to incorporate a deceleration lane for the entrance into the proposed FWS cultural center and the request to obtain copies of the survey information developed for the US 701 project.

## MEETING MINUTES

April 28, 2005

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After a short break, the group reconvened to summarize the meeting discussions and major concerns. Rob requested the agencies provide by email any additional brief written comments they have on the proposed project. The emails should be sent directly to Wayne Hall.

SUMMARY OF MEETING DISCUSSIONS
<ul style="list-style-type: none"><li>• The agency representatives preferred to have the new alignment placed to the north (upstream) of the existing roadway.</li><li>• The new and existing roadway fill should be equipped with wildlife crossing/flood relief structures located at high land locations.</li><li>• It is preferred that the new bridges utilize a drainage collection system instead of the direct discharge method currently used on the existing structure.</li><li>• The new bridge structures should minimize the number of substructure units.</li><li>• Threatened endangered species must be taken into consideration in the selection of the new alignment.</li><li>• The boat ramp should be keep open as long a possible and a new boat ramp, if required, should utilize details from the sample projects.</li></ul>



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## REVISED MEETING MINUTES

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**MEETING DATE:** October 4, 2005

**MEETING LOCATION:** US 701 Project Site  
(Great Pee Dee River Boat Landing)

**TO:** Attendees (Listed Below)

**FROM:** Harry Parrish

**PROJECT:** Replacement of US 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow and Yauhannah Lake  
SC File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688

**SUBJECT:** Agency Field Meeting

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The purpose of the field meeting was to coordinate and discuss with the various regulatory and government agencies the conceptual alignment alternatives prepared for the project. The following people and their affiliation were in attendance:

<u>Name</u>	<u>Firm</u>	<u>Email Address</u>	<u>Phone No.</u>
Rob Hamzy	SCDOT	HamzyRA@scdot.org	803-737-1616
Mike Barbee	SCDOT	BarbeeMW@scdot.org	803-737-4034
Ed Frierson	SCDOT	friersonew@scdot.org	803-737-1861
J. Shane Belcher	FHWA	Jeffrey.belcher@fhwa.dot.gov	803-253-3187
Mark Caldwell	U.S. Fish and Wildlife Service	Mark_Caldwell@fws.gov	843-727-4707
Craig Sasser	U.S. Fish and Wildlife Service	Marshall_Sasser@fws.gov	543-527-8069
Susan Davis	SCDNR	DavisS@dnr.sc.gov	843-953-9003
Alan Wrenn	Horry County	wrenna@horrycounty.org	843-248-1370
Nancy Cave	Coastal Conservation League	nancyc@ccccl.org	843-545-0403
Tuhin Basu	Tuhin Basu & Assoc., Inc.	tkbasu@tbaengineering.com	703-447-0082
Harry Parrish	Tuhin Basu & Assoc., Inc.	hcparrish@tbaengineering.com	703-918-9870
Micah Ceary	Tuhin Basu & Assoc., Inc.	msceary@tbaengineering.com	703-918-9870
Richard Pittenger	ARM Environmental Services, Inc.	rpittenger@armenv.com	803-783-3314
Richard Ciccolella	ARM Environmental Services, Inc.	rciccolella@armenv.com	803-783-3314

The following is a summary of the major discussions held during this agency field meeting.

1. Rob Hamzy gave a brief description of the project and explained this meeting was a follow-up to the agency field meeting held last April for the project. Rob also indicated that based on comments from the last field meeting, the Consultant has developed several conceptual alternative alignments for the project. The purpose of the meeting was to present the conceptual alternative alignments to the agencies for comments.

## MEETING MINUTES

October 4, 2005

Page 2 of 4

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2. Harry Parrish presented the conceptual alternative alignments to the group. Harry indicated that ten (10) alignments were initially developed and after evaluating the advantages and disadvantages of each alternative, the list of feasible alternatives was reduced to four (4). All four alignments selected for further evaluation are located parallel to the existing US 701 alignment. The alignments are as follows: Alternative 1 is positioned 72 feet upstream from the existing alignment (measured from centerline to centerline of alignments); Alternative 2 is located 55 feet upstream from the existing alignment; Alternative 3 is positioned 55 feet downstream from the existing alignment; and, Alternative 4 is located 72 feet downstream from the existing alignment. It was also explained that positioning an alignment near the existing power line easement in the previously disturbed wetland area upstream from existing US 701 was not feasible due to the considerable distance from existing US 701 (i.e., approximately a minimum of 250 feet).
3. The wetland impacts, cultural resource impacts and property impacts were also presented for each of the four conceptual alternative alignments. It was noted that Alternative 3 has the least amount of impacts to wetlands, cultural resources and properties.
4. The impact of the proposed alternative alignments on the boat landing owned by Horry County was discussed. The alignment alternatives positioned upstream from existing US 701 (i.e., Alternatives 1 & 2) would require relocation of the existing boat landing. All alternative alignments presented include the construction of a new access road to the boat landing as part of the project. It was also mentioned that turning lanes from US 701 to the boat landing access road would be provided. The proposed access road configuration and turning lanes from US 701 would provide safer access to the boat landing than the current condition and would be a benefit to the County.
5. Harry Parrish indicated that the proposed bridges will have longer spans than the existing structures and the proposed bridge profile will be slightly higher than the existing bridge profile. Additionally, the proposed bridge lengths are generally longer than the existing bridge lengths. The proposed Great Pee Dee River Bridge is approximately 1,000 feet longer than the existing Great Pee Dee River Bridge.
6. Craig Sasser of USFWS informed the group that in establishing the Waccamaw National Wildlife Refuge, USFWS entered into an agreement with SCDOT to preserve an 1,000 foot wide corridor along US 701 for future widening or modifications of the roadway. The agreement also states that Section 4(f) will not apply to any highway construction within this corridor. Craig Sasser indicated the original agreement did not cover the Yauhannah bluff property purchased by USFWS and a separate agreement was executed to preserve a 125-foot-wide strip along the downstream side of existing US 701 for future widening of the roadway.
7. Mark Caldwell questioned whether SCDOT has selected a preferred alignment. Rob Hamzy indicated that the Department is leaning towards Alternative 3 since it has the least amount of wetland, cultural resource and property impacts. However, this decision is not final.
8. Mark Caldwell questioned whether the existing roadway fill would be removed once the new roadway is constructed. Rob Hamzy stated that at this time, the existing roadway fill would not be removed since US 701 will be widened at some point in the future. Mark Caldwell indicated that building wildlife crossings through the existing fill would be a good idea if the fill is not removed. Mark Caldwell also stated that in those locations where the proposed bridges are longer than the existing bridges, removing the existing fill back to the end of the proposed bridge would help to mitigate impacts.
9. Susan Davis stated that some removal of the existing roadway fill would be good on-site mitigation for the construction of the US 701 project.
10. Mark Caldwell stated that USFWS still prefers an alignment upstream from existing US 701. Mark Caldwell also questioned whether the new roadway fill would have 1½:1 slopes or 2:1 slopes.

## MEETING MINUTES

October 4, 2005

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Steeper fill slopes would help to minimize impacts. Rob Hamzy stated that the fill side slopes would be dependent on geotechnical recommendations.

In closing, Rob requested the participants send by email any additional comments they have on the proposed project. The emails should be sent directly to Mike Barbee at [barbeemw@scdot.org](mailto:barbeemw@scdot.org).

A smaller group reconvened at the Yauhannah bluff site to get a better view of the area where the US 701 Alternative 3 alignment transverses the USFWS proposed Visitors Center site.

1. Craig Sasser presented the project team with a copy of the latest survey plot for the Yauhannah bluff site. It was confirmed that the Department's ROW lines on the survey plot was generally similar to the ROW lines shown in Tuhin Basu & Assoc.'s (TBA's) concept alignment plans.
2. The group located in the field two survey pins shown in TBA's conceptual alignment plans and located the approximate limits of construction for the proposed US 701 roadway.
3. It was confirmed that the limit of construction for US 701 Alternative Alignment 3 is within the 125-foot buffer zone established by USFWS. However, a small strip of the construction limits extends beyond the Department ROW line. It was agreed this area would be handled by easement, not right-of-way acquisition.
4. Craig Sasser stated that Alignment Alternative 3 has the least amount of impacts, but he was concerned about the impacts to the USFWS's proposed Visitors Center access road. Rob Hamzy suggested that USFWS's consultant (Woolpert) coordinate the entrance issues directly with Tuhin Basu & Assoc., Inc.
5. Shane Belcher indicated that a noise study may have to be performed for the project.
6. It was mentioned that consultation with the Catawba Indian Tribe should be done as soon as possible since Alignment Alternative 3 is located adjacent to the Yauhannah bluff where there are known Indian burial sites. Craig Sasser mentioned that he had discussed the possible bridge replacement with the Catawbas and they had concerns about the project.
7. It was stated that the project subconsultant that prepared the cultural resource report for the US 701 project should coordinate their findings with USFWS's consultant for their Visitor's Center to confirm that the findings are consistent in the Yauhannah bluff area.
8. It was recommended that if Alignment Alternative 3 is selected, an archaeologist should be on hand during ground disturbing activities at the Yauhannah bluff site.



## MEETING MINUTES

October 4, 2005

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SUMMARY OF MEETING DISCUSSIONS
<ul style="list-style-type: none"><li>• Alternative Alignment No. 3 (55 foot downstream alignment) has the least amount of wetland, cultural resource and property impacts compared to the other alignments.</li><li>• Limits of construction for Alignment Alternative 3 are within the 125 foot buffer zone adjacent to the USFWS property.</li><li>• Some removal of the existing roadway fill would be good on-site mitigation of impacts.</li><li>• Use of steeper fill slopes should be considered to reduce wetland impacts, if geotechnical recommendations permit.</li><li>• USFWS's Consultant (Woolpert) should coordinate the proposed Visitors Center access road directly with Tuhin Basu &amp; Assoc., Inc.</li></ul>



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## MEETING MINUTES

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**MEETING DATE:** September 29, 2009

**MEETING LOCATION:** USFWS Waccamaw National Wildlife Refuge Visitors Center

**TO:** Attendees (Listed Below)

**FROM:** Tuhin Basu

**PROJECT:** Replacement of US 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow and Lake Yauhannah  
SC File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688

**SUBJECT:** Project Coordination Meeting with USFWS

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The purpose of the meeting was to discuss the project planning status, coordinate with USFWS the proposed entrance to the Visitors Center, and review future development plans for the refuge property. The following people and their affiliation were in attendance:

<u>Name</u>	<u>Representing</u>	<u>Email Address</u>	<u>Phone No.</u>
Craig Sasser	USFWS	Marshall_sasser@fws.gov	843-527-8069
Mark Caldwell	USFWS	Mark_caldwell@fws.gov	843-727-4707
J. Shane Belcher	FHWA	Jeffrey.belcher@fhwa.dot.gov	803-253-3187
Tyke Redfearn	SCDOT	Redfearnwt@scdot.org	803-737-1430
Ed Frierson	SCDOT	FriersonEW@scdot.org	803-737-1861
Henry Phillips	SCDOT	Phillipsmh@scdot.org	803-737-1872
Tuhin Basu	Tuhin Basu & Assoc., Inc.	tkbasu@tbaengineering.com	703-447-0082
Harry Parrish	Tuhin Basu & Assoc., Inc.	hcparrish@tbaengineering.com	703-918-9870
Micah Ceary	Tuhin Basu & Assoc., Inc.	msceary@tbaengineering.com	703-918-9870
Richard Ciccolella	ARM Environmental Services, Inc.	rciccolella@armenv.com	803-783-3314

The group met in the conference room of the new Waccamaw NWR Visitors Center at approximately 2:00 pm. Tyke Redfearn opened the meeting. Micah Ceary requested from USFWS a copy of the as-built plans for the Visitors Center entrance to the refuge property. TBA will need the copy to incorporate the deceleration lane into the US 701 project drawings. Craig Sasser indicated the need for the adequate Visitors Center signage on US 701. The southbound traffic on the bridge approaches this area with high speeds. It appears that the current visibility to the entrance should be improved. There has been one accident while a car was attempting to make a left turn from US 701 South to the Visitors Center. This issue should be considered during the design of the new highway. Harry Parrish recognized the need for a safe access to the Visitors Center particularly for the US 701 southbound traffic. He also emphasized the need for having adequate line of site for all drivers exiting the Visitors Center, including the school bus drivers carrying children. Mark Caldwell asked if an acceleration lane (center median) for vehicles leaving the Visitors Center going south has been considered. Harry Parrish indicated that the southbound

## MEETING MINUTES

September 29, 2009

Page 2 of 5

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center lane needs to be considered, but that is something that cannot be committed to without further evaluation. Craig Sasser questioned the possibility of the project becoming 4-lanes. Tuhin Basu responded that a 4-lane facility is not intended for the project. A 2-lane facility is being replaced by a 2-lane facility at this time. Shane Belcher also indicated that the plans are only for a 2-lane facility. Craig Sasser was concerned that a 4-lane facility is inevitable. Craig Sasser indicated that he wanted some foresight in the planning process for the refuge and must know if US 701 will have 4 lanes. He indicated that there is not much room on the bluff property and that the archeological remains would have to be considered if encroachment for a 4-lane highway is planned. Craig Sasser said he understood that there was an agreement in place for the road encroaching into the refuge.

The subject of pumping the roadway discharge into the refuge pond was also discussed. It was decided that this issue would be further discussed when the group goes outside to see the area.

Tyke Redfearn addressed a previous USFWS comment regarding possible installation of culverts for wildlife passage. Tyke Redfearn indicated that to install culverts the road would need to be closed which was not possible as all the US 701 traffic would be stopped or detoured. He also indicated that the bridge over the Great Pee Dee River will be more than 800' longer compared to the existing structure. This will provide increased opportunity for wildlife passage. Micah Ceary indicated that each of the bridges will be longer than the existing structure, and that the existing causeway fill will be pulled back to the new abutments. Craig Sasser inquired about installing a wildlife passage closer to the upland portion of the highway. He has observed that smaller animals, such as reptiles, are getting hit by cars, and these animals are more likely to use a crossing closer to the upland portions. Mark Caldwell asked if directional boring could be done for culverts. Harry Parrish responded that it would depend on the size of the culverts. Craig Sasser indicated that some of the existing causeway fill may have a lot of debris associated with it (glass, tires, etc) and that this debris may need to be sorted out if fill is removed.

Mark Caldwell asked about the method of bridge construction. Harry Parrish indicated that a temporary road will be used and those areas will be restored after construction. These areas will have the minimum required room to do the work. Mark is concerned that this will bring construction closer to Cowford Lake and that the old growth forest in this area would take a long time to replace. Harry Parrish indicated that maybe the temporary road could go underneath the existing structures. Tyke Redfearn indicated that the method of construction will depend on the contractor, but for engineering/planning purposes the worst case scenario is being presented in the EA. Micah Ceary indicated that TBA is trying to keep everything as tight to the existing alignment as possible and that construction equipment may use mats. Mark Caldwell indicated that mats or stone would be better than fill for temporary impacts. Tuhin Basu showed a sketch to be included in the EA which shows the anticipated temporary impact area during construction. Shane Belcher indicated that for the EA, worst case scenario would have to be considered and that further details would need to be worked out during permitting. Craig Sasser asked if any alternative was considered on the upstream side of existing US 701. Tuhin Basu and Tyke Redfearn replied that the upstream side has been considered.

Craig Sasser stated that new types of asphalt surfaces are being used for noise abatement. But he also read that this would require enrollment in a FHWA pilot study program. Shane Belcher concurred with that requirement for the study program, but stated that Open Graded Friction Course pavement cannot be used for noise abatement. Craig Sasser commented that the refuge headquarters would be a category "B" for noise. Shane Belcher confirmed that it would be a category "B" and that the refuge would be treated like a park. Craig Sasser indicated that they have just gone through a 15 year planning review and have concluded that Bull Island would likely meet the criteria for a wilderness area. USFWS will move forward with trying to get Bull Island designated as a wilderness area for noise abatement criteria. Shane Belcher commented that the presence of people would still keep Bull Island out of Category "A" for noise

## MEETING MINUTES

September 29, 2009

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abatement criteria. Shane Belcher indicated that if certain items are already planned/programmed, then FHWA must be made aware of those and FHWA might have to consider the issues. Craig Sasser indicated they have these only in the planning process, but he feels Bull Island was a wilderness area.

Craig Sasser indicated that he would do a Compatibility Determination for the refuge. Craig Sasser will need to go through a checklist to determine if the project is compatible, and he wanted a win/win situation.

Craig Sasser said that noise was an issue and he was concerned that the receptors for the noise analysis were residential and not some of the natural areas. Shane Belcher indicated that everything was compared to the FHWA Noise Abatement Criteria (NAC). Under these criteria, a park will be treated like there were people present, which would be Category B. Shane said if Bull Island were to be considered a Category "A", the "no-build" and "future build" numbers would be compared, and, if the "future build" did not exceed the NAC, nothing would be required for noise. Bull Island would need to be designated as a Wilderness Area prior to FHWA making a final decision on the NEPA document in order for it to be given consideration under the Criteria "A". Mr. Belcher noted that FHWA HQ would have to make the call on Bull Island meeting the Criteria "A" qualifications. Exceeding the NAC is what causes the need for abatement. Shane Belcher stated again that there are no criteria for animals (i.e., non-humans) and that the refuge would be treated like a park. Craig Sasser said that he read that various bird species could be affected by noise, especially during the breeding season. Shane Belcher agreed and pointed out that CAL-Trans has done a lot of research on this and FHWA prepared a synthesis report on the topic (dated Sept. 2004). Craig Sasser stated he was concerned that during the fall/winter deciduous trees lose their leaves and that noise attenuation would be lessened even more at that time. Tyke Redfearn indicated that the worst case scenarios were evaluated in the noise study. Shane Belcher indicated that the longer bridging with fewer bridge joints for the proposed project may decrease the noise levels but that it would not be able to be verified that fewer joints would reduce the noise levels. Craig Sasser stated that his goal was not to interfere with the proposed US 701 project, but to find the best solutions. He said he wanted it quieter at the refuge Visitors Center and he would rather have the new road away from the refuge Visitors Center. Craig commented that the truck tire noise was the biggest issue.

Tyke Redfearn asked TBA to discuss the bridge design as it pertains to noise. In response, Harry Parrish said he believed that currently the numerous bridge joints are the significant contributors to noise. The new bridges will incorporate far fewer joints. Harry Parrish also indicated that the bridge side barriers will be closed and approximately 42 inches high and this would probably help with the noise. Micah Ceary said he thought the bridge barriers would deflect noise upward. Shane Belcher said he felt the higher new bridges could keep noise above the receptors but if the nests were above the bridges it would be hard to provide any abatement. Craig Sasser asked the possibilities of using earthen barriers as noise barriers, like on the upland portion of the "bluff". Shane Belcher said that it could be done but he felt this would require a lot of soil and right of way to make it high enough to be effective. Tyke Redfearn said that would create a blockage of view.

Craig Sasser said he would hope that during the design phase, things can be planned to reduce impacts. He was concerned that the project would leave little forested wetland between the road and Cowford Lake, and that this would take some of the natural buffer away from the Cowford Lake. Craig Sasser again brought up the Swallow Tailed Kites in the Cowford Lake area and also indicated that there was an artificial kite nest site that had been installed there and had been successful, which was rare.

Mark Caldwell asked if the EA had considered a back and forth alignment crisscrossing the existing alignment. He commented that such alignments had been successful before. Harry Parrish responded that alignments such as this were considered during the conceptual alignment study phase, and it became

## MEETING MINUTES

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apparent that there would be no way to make a smooth transition given the limited length of causeway between the longer bridges. The possibility of planting evergreens as a noise barrier was discussed. Shane Belcher indicated that the planted trees would need to be on the order of 100 feet thick to provide a substantial reduction. Craig Sasser asked if it was possible to look into the noise impact comparison if the alignment is placed on the upstream side of the existing US 701. Craig Sasser provided an aerial map of the area he was interested in for comparison purpose. Micah Ceary asked Craig Sasser how much higher the kite nests are in relation to the bridge. Craig Sasser said he thought it would be 20 feet higher. Craig Sasser said his biggest concern was excessive clearing between the bridge and Cowford Lake, and he was concerned that this would remove a lot of the existing natural buffer. Mark Caldwell brought up various items related to construction that can be done to limit construction noise, such as, no dump-truck tailgate banging and turning off the truck back up alarms. Shane Belcher commented that pile driving could also be a large contributor to construction noise impacts. Harry Parrish indicated that pile driving would be minimal and that most of the substructure consists of drilled shafts. Micah Ceary showed Craig Sasser on an aerial photograph the approximate limits of construction. Micah Ceary demonstrated that there would be a wooded buffer between the construction area and Cowford Lake.

Craig Sasser said he would need the approved EA so that he could do the Compatibility Determination which is now required based on the Refuge Improvement Act. Craig Sasser said if the EA demonstrates that the noise will be the same, wetland impacts are minimized, etc., and then the Compatibility Determination will be satisfactory. SCDOT will send a copy of the completed EA to USFWS. USFWS will provide comments and perform the Compatibility Determination. Craig Sasser said that the Compatibility Determination should be made when the project goes to permitting since that is the important part of the environmental process. Shane Belcher said that as long as the commitments are made in the EA, the EA must be honored, and the commitments cannot be undone because of value engineering determinations. Mark Caldwell asked whether this project will be a "design/build" or a "design/bid/build" project. The answer was it will be a "design/bid/build" project. Mark Caldwell said that was good to hear because that arrangement will help to minimize any "back and forth" on issues and commitments.

The group then went outside for a tour of the Visitors Center grounds. Craig Sasser showed the group a small wetland swale that USFWS is considering acquiring. Craig Sasser indicated that this may be used as partial mitigation for the project's effects on the wetlands. Craig Sasser guided the group to view the storm detention pond on the refuge property. He indicated the pond did not turn out the way they had anticipated and USFWS is currently pursuing legal action against the responsible contractor. Micah Ceary requested elevations for the pond area to assist in evaluating the feasibility of channeling roadway drainage from US 701. Micah Ceary indicated that USFWS would be responsible for design of the pond and volume of water needed requirements. The group proceeded to the intersection of the Visitors Center driveway and US 701. The TBA staff again stated that additional evaluations would be required to determine if a left turn lane from southbound US 701 into the Visitors Center could be accommodated in the project.

The group gathered at the parking lot of the Visitors Center before departing. The subject of culverts for wildlife passage was raised again. Craig Sasser and Mark Caldwell asked what size culverts could be driven through the causeway. Mark Caldwell also asked if the culverts, if installed, would be round or box type. Tyke Redfearn indicated they would be round. Mark Caldwell indicated that box culverts would be better because there would be a natural bottom for the animals to use instead of a concrete bottom. Tyke Redfearn asked Craig Sasser and Mark Caldwell to provide some information about what type/size culverts they would like to see, and also, how much fencing would be necessary to funnel the animals to the culvert crossings. Craig Sasser asked if there were plans to place rip-rap at the base of the causeway since the rip-rap could act like a fence and keep animals from climbing the causeway and force

## **MEETING MINUTES**

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them to use the culverts. Craig Sasser indicated that he did not like fencing because of the potential for trash and debris accumulation. Harry Parrish replied that currently the plans are only to place rip-rap at the bridge abutments to prevent scouring and not to place any rip-rap along the causeway.

The meeting ended in the parking lot at approximately 4:45 PM.



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## MEETING MINUTES

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**MEETING DATE:** September 13, 2011

**MEETING LOCATION:** USFWS Waccamaw National Wildlife Refuge Visitors Center

**TO:** Attendees (Listed Below)

**FROM:** Tuhin Basu

**PROJECT:** Replacement of US 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow and Lake Yauhannah  
SC File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688

**SUBJECT:** Project Coordination Meeting with USFWS

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The purpose of the meeting was to arrive at a conclusion regarding the Archeological MOA and the current ROW. In his email of August 10, 2011 to Tyke Redfearn, Craig Sasser indicated that he had been following up with Jackie Cumpston and Richard Kanaski, both of United States Fish & Wildlife Service (USFWS) almost daily and expected to finish up the MOU and ROW issues some time soon. In that email, Craig Sasser suggested a meeting in early September. The meeting was set on September 13, 2011 at 11:00 AM.

The following people and their affiliation were in attendance:

<u>Name</u>	<u>Representing</u>
Craig Sasser	USFWS - Refuge
Mark Caldwell	USFWS - Regulatory
Patrick Tyndall	FHWA
Tyke Redfearn	SCDOT - RPG 2
Henry Phillips	SCDOT - Env
Wayne D. Roberts	SCDOT - Env
Jeff Craves	SCDOT - Env
Tuhin Basu	Tuhin Basu & Assoc., Inc.
Micah Ceary	Tuhin Basu & Assoc., Inc.

Via Conference Call

Rick Kanaski	USFWS - Arch.
Jackie Cumpston	USFWS - R/W

The group met in the conference room of the new Waccamaw NWR Visitors Center at approximately 11:00 AM. The topics discussed at the meeting are as follows:



## **MEETING MINUTES**

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### **Archeological MOA**

Rick Kanaski apologized for not being able to attend the meeting in person. Wayne Roberts indicated that the revised draft Archeological MOA was submitted to Rick for his review and concurrence August 2010. Rick indicated that the Archeological MOA was close to being finalized. Wayne and Rick agreed that artifacts from the known Yauhannah Bluff site should be kept in the depository in Alabama in order to keep the collection together. Findings from other areas throughout the project will be kept in Columbia, South Carolina in the SKIA depository.

Wayne Roberts indicated that SCDOT is currently working with the Catawba tribe on a procedure for dealing with unearthened remains the US 378 project. Rick requested the new policy once the discussions are complete. For the Archeological MOA, both agreed that the procedure for burial on unearthened remains will be determined by the appropriate tribe, and options can include burial on local USFWS land (pending hydrologically stable), approved local SCDOT burial site (similar to or possibly the US 378 site), or the tribe may handle the burial directly on not USFWS or SCDOT land.

Rick Kanaski requested an updated Archeological MOA based on this meeting's agreements to be sent to himself and Craig Sasser. Wayne Roberts indicated that the updated Archeological MOA could be completed in a couple of days. Patrick Tyndall indicated that FHWA will send the Catawba tribe a coordination letter to apprise the tribe of the current status of the project and Archeological MOA.

### **Permitting Procedure for USFWS**

Craig Sasser and Tyke Redfearn discussed the permitting procedure for gaining access to USFWS property. Craig indicated that the process steps are as follows:

1. EA
2. Appropriate and Compatibility Determination (CD)
3. Permit approval by USFWS

Tyke Redfearn questioned whether SCDOT could buy ROW from USFWS. Patrick Tyndall said that the permitting procedure stated above and final agreements with respect to ROW can be handled during the ROW phase of the project. The major focus is on coming to agreement as to land ownership and then proceeding to revised the EA.

### **Right of Way**

Patrick Tyndall indicated that final concurrence of right-of-way is on the critical path for the US 701 project and that the project cannot move forward until property ownership is clearly established project wide.

Jackie Crumpton indicated that USFWS has been reviewing the USFWS properties in the wildlife refuge and are not prepared to sign an agreement at this point. She indicated that Jeanette a reality specialist will be working on this issue. Jackie Crumpton indicated that this is the number 1 priority and she would like to bring in John Beasley to perform survey work as needed. USFWS is unclear as to the full extents of their properties given the old means and bounds descriptions. Patrick Tyndall requested the full disclosure of all findings by early October 2011, and Jackie indicated that USFWS only needed 14 days to perform this work. Tyke Redfearn offered SCDOT assistance and indicated that SCDOT right-of-way records are on file in Horry County Courthouse. He also indicated that there are not records of SCDOT right-of-way in Georgetown County.

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September 13, 2011

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### Revised EA

Patrick Tyndall again restated that the three next steps are as follows:

1. Completed Archeological MOA (SCDOT)
2. Survey of USFWS properties (USFWS)
3. Revised / New EA (SCDOT)

Patrick indicated that current EA contained assumptions before, but better information is now available. Patrick stated that the revised / new EA will take a hard look at the current impacts, consider new alternatives, and will determine the preferred alignment based on these findings. Patrick also suggested adding USFWS and United States Coast Guard (USCG) as cooperating agencies. Mark Caldwell indicated that USFWS may not be able to participate as a cooperating agency due to possible conflicts of interest, but would check on this item. Patrick stated that USFWS being a cooperating agency does not mean that USFWS agrees with the finding in the EA or will sign the CD. Regardless of whether USFWS is a cooperating agency, FHWA / SCDOT will provide USFWS a copy of the EA for their review and comment prior to releasing the EA to the public. Patrick added that once the EA is released to the public, the public will have time to review the document before the public hearing.

### Moving Forward

Craig Sasser questioned the process of moving this project forward. Patrick Tyndall indicated that Tuhin Basu & Associates (TBA) could proceed with revisions to the EA and Tyke Redfearn agreed. Micah Ceary (TBA) suggested a meeting between TBA and USFWS to discuss current situation of the refuge within the project limits. Micah indicated that USFWS should be prepared to provide documentation of the following items:

1. Trials (in CAD file or GPS coordinates)
2. Access Location and Utilization (Entrance along South side of Great Pee Dee River)
3. Shallow-tail Kite Locations

Patrick Tyndall suggested that TBA bring the EA chapter on know issues to the meeting, so that USFWS can review and provide comments. Micah Ceary suggested providing a general layout of the relocated USFWS Visitor Center driveway in order for USFWS to review and comment. Craig indicated that if the current USFWS driveway was relocated further south, an archeological study would need to be performed. Craig stated that USFWS only investigated the portion of the property impacted by the Visitor Center project.



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## MEETING MINUTES

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**MEETING DATE:** March 15, 2012

**MEETING LOCATION:** USFWS Waccamaw National Wildlife Refuge Visitors Center

**TO:** Attendees (Listed Below)

**FROM:** Tuhin Basu

**PROJECT:** Replacement of US 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow and Lake Yauhannah  
SC File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688

**SUBJECT:** Project Coordination Meeting with USFWS

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The purpose of the meeting was to discuss the project planning status, and coordinate with USFWS on USFWS property lines in the vicinity of the US 701 alignment. The following people and their affiliation were in attendance:

<u>Name</u>	<u>Representing</u>	<u>Email Address</u>	<u>Phone No.</u>
Craig Sasser	USFWS	Marshall_sasser@fws.gov	843-527-8069
Mark Caldwell	USFWS	Mark_caldwell@fws.gov	843-727-4707
Patrick Tyndall	FHWA	Patrick.Tyndall@fhwa.dot.gov	803-765-5460
J. Shane Belcher	FHWA	Jeffrey.belcher@fhwa.dot.gov	803-253-3187
Bener Amado	SCDOT	AmadoB@dot.state.sc.us	803-737-0181
Tyke Redfearn	SCDOT	RedfearnWT@dot.state.sc.us	803-737-1430
Ed Frierson	SCDOT	FriersonEW@dot.state.sc.us	803-737-1861
Henry Phillips	SCDOT	PhillipsMH@dot.state.sc.us	803-737-1872
Tuhin Basu	Tuhin Basu & Assoc., Inc.	tkbasu@tbaengineering.com	703-447-0082
Harry Parrish	Tuhin Basu & Assoc., Inc.	hcparrish@tbaengineering.com	703-918-9870
Micah Ceary	Tuhin Basu & Assoc., Inc.	msceary@tbaengineering.com	703-918-9870

The group met in the conference room of the Waccamaw NWR Visitors Center at approximately 11:00 AM. Craig Sasser asked if it was necessary to have Richard Kanaski on the phone for this meeting. Shane Belcher said if FWS has no major issues with the archaeological MOA, then it was not necessary to get Richard Kanaski on the phone. Currently, this MOA is being reviewed by the USFWS Legal Department. Patrick Tyndall said the MOA was fine with the FHWA, and the MOA should be signed by all parties in 25 days.

The property line issues were discussed next. Tyke Redfearn made references from the "Surveyor's Preliminary Legal Description Review", prepared by Leon McGee of USFWS. USA Tract 30, SCDOT Tract 9 was discussed. The property was acquired by USFWS in February, 2009 based on an unrecorded survey by S. D. Cox, dated June 1925. The USFWS deed shows 31.4 acres of land. A copy of the Cox

## MEETING MINUTES

March 15, 2012

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survey has not been found yet. However, there is another survey of the same property prepared by Robert Frank in June 2002. The Frank survey lists the property as 22.9 acres. The USFWS property line along US 701 shown in the Frank Survey Plot is consistent with the SCDOT's Preliminary Right of Way Plans prepared for this project. To keep the US 701 project EA moving forward, Tyke Redfearn suggested that the USFWS deed showing 31.4 acres be accepted at this time. It will only indicate more conservative result (i.e., more project impact) on the USFWS property.

Patrick Tyndall said this assumption is important to proceed with the 4(f) evaluation process quickly. He also mentioned that a MOA should be prepared to acknowledge agreement by all parties in the location of the USFWS property lines along US 701. The project impact for 4(f) determination will be computed based on the MOA. Actual acreage will be determined during the right of way acquisition stage. This MOA should be signed by USFWS, SCDOT and FHWA. Craig Sasser mentioned he had information on all properties purchased utilizing LWCF funds, except for one parcel. Patrick Tyndall reiterated that all 4(f)/6(f) impacts will be computed based on the USFWS property lines in Georgetown County as currently filed in the County Courthouse, and the MOA should be signed accordingly. This will give the opportunity to go ahead with the project.

DOT Tract 16 was discussed. In this tract there is a 0.26 acres in a triangle shape where the property line location along US 701 is not consistent with the adjoining USFWS properties. Consultant's surveyor is performing a survey at this time to locate the corner pins of this property. Harry Parrish mentioned that he was not optimistic that the surveyors would be able to find the original corner pins. Patrick Tyndall mentioned that if the surveyors do not find any corner pins then it will be assumed that this property belongs to the USFWS.

DOT Tract 17 was discussed. Tract 17 extends on both sides of US 701 in Georgetown County along the Great Pee Dee River. USFWS deeds and plats show SCDOT right of way as a 200 ft wide strip through the parcel. It was agreed that SCDOT will accept the USFWS definition of SCDOT right of way in this area.

DOT Tracts 19 and 20 were discussed. DOT Tracts 19 and 20 are along the Great Pee Dee River in Horry County. It was stated that based on Leon McGee's survey review, the USFWS deed and survey are in error. SCDOT actually has 400 ft wide right of way between these two tracts. It was agreed that the project would proceed with the SCDOT right of way definition.

Patrick Tyndall mentioned that deeds are not required to proceed with the NEPA process. The MOA should have an introduction saying that we are assuming some boundary limits only to compute the 4(f) 6(f) impact calculations.

Craig Sasser mentioned the North Carolina Bridge Compatibility Determination document. Craig will send a copy of this document to SCDOT. This documentation shows mitigation plans. It will be a good guidance for the project team.

The distance of the Cowford Lake Bank from the existing US 701 alignment was discussed. This information will be confirmed as the surveyors submit their plans.

Patrick Tyndall summarized the meeting with the following comments:

- The archeological MOA is being reviewed by USFWS legal. It should be signed by all parties in 25 days.

## MEETING MINUTES

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- For the right of way lines, where there are discrepancies, we will refer to the USFWS data.
- A Right of Way MOA should be written and signed by all parties. A draft Right of Way MOA should be ready in March.
- The Environmental Impact Matrix will be revised.
- Will provide best engineering guide to determine the Cowford Lake noise situation and determine what we can and cannot do in this regard.
- Some of the EA chapters will be revised. Instead of requesting reviews of the EA by chapters, the completed draft EA will be submitted to USFWS for review.
- There should be a meeting every month to discuss the outstanding project issues and help to keep the project moving. The next meeting will be held around April 15<sup>th</sup>.



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## MEETING MINUTES

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**MEETING DATE:** April 17, 2012

**MEETING LOCATION:** U.S. Fish and Wildlife Service  
176 Croghan Spur Road - Suite 200  
Charleston, SC 29407

**TO:** Attendees (Listed Below)

**FROM:** Tuhin Basu

**PROJECT:** Replacement of US 701 Bridges over Great Pee Dee River,  
Pee Dee Overflow and Lake Yauhannah  
SC File No. 22.124B, Project No. BR-BR88(044), PIN No. 30688

**SUBJECT:** Project Coordination Meeting with USFWS

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The purpose of the meeting was to discuss the processing status of the Draft Archaeological MOA and the ROW MOA. The following people and their affiliation were in attendance:

<u>Name</u>	<u>Representing</u>	<u>Email Address</u>	<u>Phone No.</u>
Craig Sasser	USFWS	Marshall_sasser@fws.gov	843-527-8069
Mark Caldwell	USFWS	Mark_caldwell@fws.gov	843-727-4707
Tyke Redfearn	SCDOT	RedfearnWT@dot.state.sc.us	803-737-1430
Henry Phillips	SCDOT	PhillipsMH@dot.state.sc.us	803-737-1872
Tuhin Basu	Tuhin Basu & Assoc., Inc. (TBA)	tkbasu@tbaengineering.com	703-447-0082

The group met in the conference room of the U. S. Fish and Wildlife's (USFWS) Charleston, SC office at approximately 10:30 AM. Craig Sasser mentioned that the Archaeological MOA was sent to USFWS Legal by Richard Kanaski and is under review. Craig also mentioned that he did not get any comments regarding the ROW MOA. Tyke Redfearn said that the discussions included in the ROW MOA will not hold good for ever. These items are only valid for computing the impacts to be included in the revised EA. Tuhin Basu said it would be helpful to obtain at this time the documentations showing which USFWS tracts were purchased using LWCF money. These documentations will be included in the revised EA.

Craig Sasser mentioned that a 4-lane US 701 (highway and bridge) will be needed for managing the refuge site. Both Mark Caldwell and Craig Sasser expressed their preferences of having the new bridge on the upstream side and close to the existing power line. Tyke Redfearn said that SCDOT has asked TBA to study another alignment on the upstream side of the existing bridge.

## MEETING MINUTES

April 17, 2012

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Craig Sasser summarized the following as his immediate action items:

- Craig Sasser will find documentations for the USFWS purchase of the Tracts using the LWCF funds in the project vicinity;
- Craig Sasser will follow up on the current status of the Archaeological MOA; and,
- Craig Sasser will follow up on the review comments on the ROW MOA.

The next meeting will be held on May -----.



U.S. Department  
of Transportation

**Federal Highway  
Administration**

## MINUTE-MEMORANDUM

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**From:** J. Shane Belcher  
Environmental Coordinator  
Federal Highway Administration

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**Date:** 2-15-13

**TO:** Meeting Attendees

**SUBJECT:** US 701 Bridges [BR88(044)] Meeting Minutes from 2-13-13

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The purpose of the meeting was to discuss the status of the EA and continue discussion of project mitigation. The following were in attendance:

Craig Sasser (CS)	USFWS (Refuge Mgr )	<a href="mailto:Marshall_Sasser@fws.gov">Marshall_Sasser@fws.gov</a>	843-527-8069
Mark Caldwell (MC)	USFWS	<a href="mailto:Mark_Caldwell@fws.gov">Mark_Caldwell@fws.gov</a>	843-727-4707
Tyke Redfearn (TR)	SCDOT (PM)	<a href="mailto:RedfearnWT@scdot.org">RedfearnWT@scdot.org</a>	803-737-1430
Henrey Phillips (HP)	SCDOT (EMO)	<a href="mailto:PhillipsMH@scdot.org">PhillipsMH@scdot.org</a>	803-737-1872
Ed Frierson (EF)	SCDOT (EMO)	<a href="mailto:FriersonEW@scdot.org">FriersonEW@scdot.org</a>	803-737-1861
Shane Belcher (SB)	FHWA	<a href="mailto:jeffrey.belcher@dot.gov">jeffrey.belcher@dot.gov</a>	803-253-3187
Andrew Brunner (AB)	FHWA	<a href="mailto:andrew.brunner@dot.gov">andrew.brunner@dot.gov</a>	803-253-5693

The group met at the WNWR Visitor's Center in Georgetown, SC. SB opened up the meeting by discussing the status of the revised EA. SB stated that the consultant has been working on the document and CS should receive a copy sometime next week. CS stated he would prefer a hard copy. SB stated he would send a hard copy and forward the link for the electronic version to CS and MC. HP noted the need for the document to stay within USFWS.

SB stated that at the moment the only solid mitigation/commitment items were the improvements at the refuge entrance, replacement land for lost refuge property, and protections for the archaeological site within the project limits. SB noted that over the years several other mitigation items have come up but nothing solid had been agreed to. SB thought it best to discuss and find out if any of those items were going to be back on the table for USFWS so we could work out any details prior to a FONSI determination and to hopefully prevent surprises from coming out of USFWS' Compatibility Determination (if needed). CS mentioned that there was some leeway on whether USFWS would need to complete a Compatibility Determination. This may be possible if there is no major change in right-of-way limits. CS would check on the language so that language could be added to the EA.

TR mentioned upstream alignment shift. SB & MC agreed that upstream is the preferred alignment and is not a "commitment." SB mentioned that the upstream preferred alignment was presented at ACE meeting & regulatory agencies (including USACE) were okay with upstream. (USACE SOPs will be followed) MC stated that he thinks that there will not be any major issues from other regulatory agencies.



SB mentioned some of the other past suggestions of USFWS such as bridge runoff being diverted into Refuge borrow pit, bat boxes being erected, and thought that there may be others. CS mentioned concern about unknown impacts to the Refuge's Volunteer Village on upstream approach side of US 701. CS stated that the noise is already intolerable in early morning and noted that shifting towards this site would cause greater noise issues. CS asked if it was possible for SCDOT to remove the old material from the original 1920's bridge (such as timber creosote piles & fill areas) after the new bridges were in place. TR stated that might be something SCDOT could look at but stated removal might cause more damages to the refuge and USFWS may have its own specialized techniques for delicate removal/cleanup. interested in installing structures away from the bridges to lure the bats away and CS may want to consider helping in this effort. CS stated that due to the Rafinesque Big Eared Bat nesting/roosting on the existing bridges would it be possible for SCDOT and USFWS work together to install some bat boxes once the new bridges were in place. The premise would be that if the bats do not take to the new bridges then the boxes would be available to them. CS stated he would provide more info to SCDOT on the issue. Regarding the Refuge borrow pit, CS understood that diverting runoff may not work, but CS asked for fill dirt to improve the borrow pit's safety (currently has very steep walls). TR stated that there is a good possibility that SCDOT can help improve the pit.

The need for SCDOT to replace lost refuge property was discussed amongst the group in detail. CS inquired about possibility of transferring the unused Horry R/W to USFWS, and TR stated that there is a good chance for this to happen. SB asked CS how USFWS would feel about funds being placed in an escrow for USFWS to purchase property at their leisure. CS stated that USFWS preferred that method because he has been working with many property owners in the area and the funds could be utilized to assist USFWS with any purchases of those properties. Everyone at the meeting agreed this was the best and cleanest way to handle the property mitigation. CS mentioned that his concerns are about mitigation for wetlands, uplands, and existing improvements, and CS wanted to make sure that everyone understood those needs. SB stated that everyone does understand that. TR asked about any current land deals for comparison and estimating purposes, and CS mentioned that the latest deal included a 50-acre tract with half upland and half wetland that is within the Refuge acquisition boundary. CS mentioned that part of this tract could be used to relocate the Volunteer Village.

CS/MC inquired about the plan for the old bridges, and TR stated that they would be demolished. MC stated that this would be a great way to provide access for fishing and refuge visitors. TR stated that maintenance is now and will continue to be an issue. CS stated that he mentioned this to USFWS engineers and they were not in favor of adopting the old bridges.

SB closed the meeting by asking CS if USFWS would require a separate MOA to address mitigation items. SB stated that it is standard for FHWA to have commitments/mitigation items listed in the EA (which is a binding legal document) and that typically serves as FHWA's agreement to complete those items. MC stated that commitments/mitigation items can also be conditions of the USACE permit, and the Corps will then regulate. CS stated he would discuss with his higher ups and let the group know.

#### Action Items:

- Draft EA will be sent to USFWS (Craig and Mark) + USCG by FHWA
- CS would research Compatibility Determination criteria and language to include in EA (this could be added after everyone reviews the Draft EA)
- TR would discuss the "shelving" idea and debris removal with SCDOT design and get back to the group.
- CS and MC research costs for bat boxes.

**CC:**

**File 22.124B**

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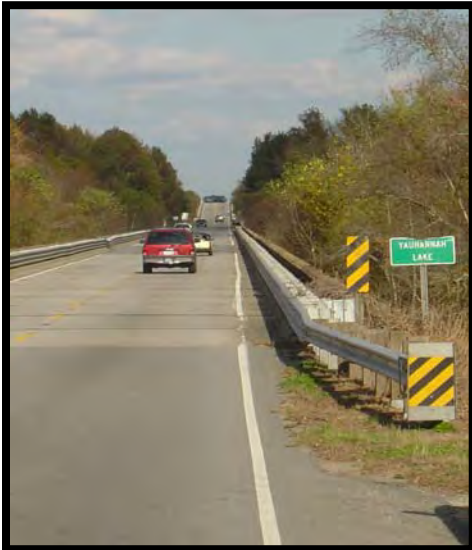
**Site 0786**

# **Public Information Meeting Input**

**ANNOUNCEMENT**  
**PUBLIC INFORMATION MEETING**  
**TO BE HELD ON THE PROPOSED**  
**REPLACEMENT OF US 701 BRIDGES**



**PUBLIC MEETING TO BE CONDUCTED BY THE SOUTH  
CAROLINA DEPARTMENT OF TRANSPORTATION**



*Public Information Meeting*

Topic: Proposed Replacement of  
US 701 Bridges

When: Tuesday, June 17, 2008

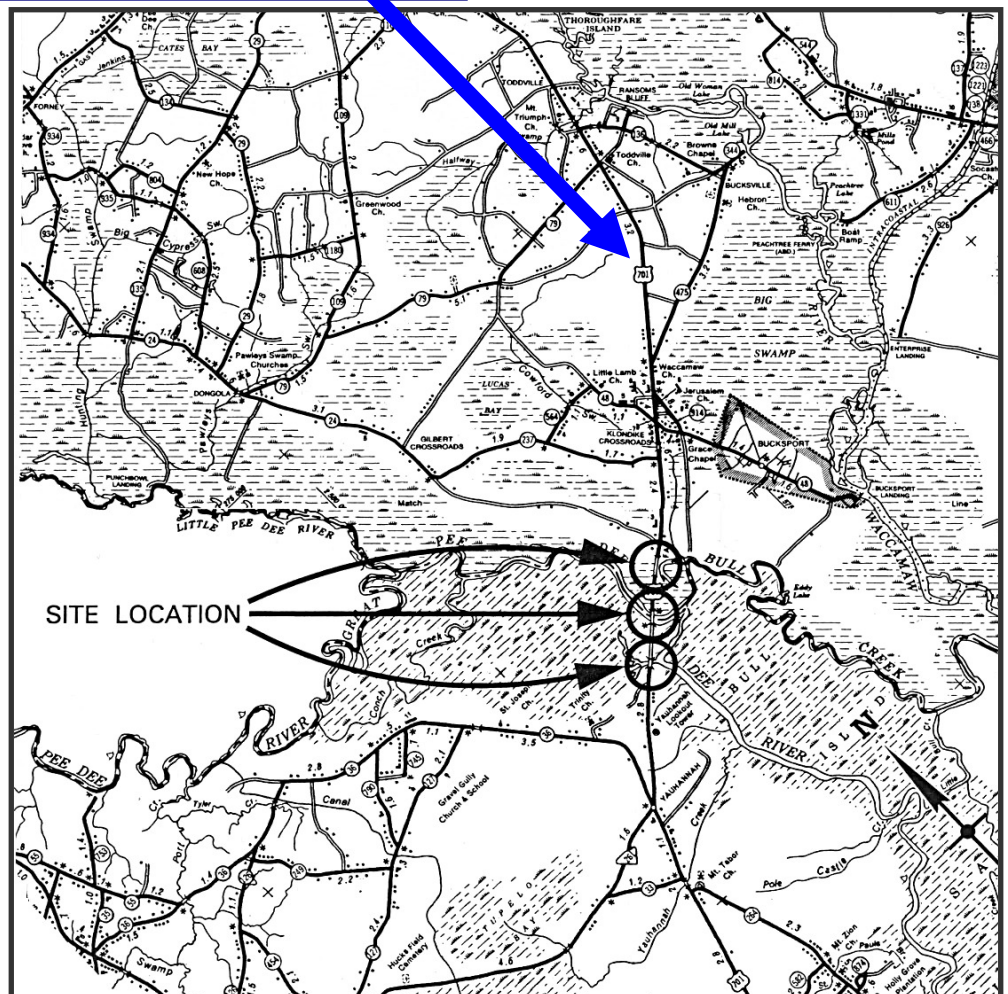
Where: Mt. Tabor Baptist Church  
Intersection of US 701 and Tabor  
Drive

Time: Drop-in format between 4:00 p.m.  
and 6:00 p.m.

On Tuesday, June 17<sup>th</sup>, the South Carolina Department of Transportation (SCDOT) will hold a public information meeting at the Mt. Tabor Baptist Church in Yauhannah Community, Georgetown County. The church is located at the US 701/Tabor Drive intersection, about 3 miles south of the bridge. The objective of this meeting is to introduce the US 701 Bridge Replacement project to the community and to solicit their comments.

The project is located in Georgetown and Horry Counties and consists of the replacement and realignment of approximately 2.4 miles of US 701 including the replacement of the three existing structurally deteriorated and functionally obsolete bridges over the Great Pee Dee River, Pee Dee River Overflow and Yauhannah Lake. Please see the map on the reverse side. The proposed realignment begins at the US 701/Trinity Road intersection in Georgetown County and ends at the US 701/Lucas Bay Road intersection in Horry County. Several alternative alignments were studied, and the preferred alternative alignment is located 55 feet downstream of existing US 701. Preliminary alignment drawings will be available for review by the public. Representatives of SCDOT and its consultant will be available to answer questions. An information package and comment sheets will also be available.

**For additional Information on this meeting contact Mr. Bener Amado, P.E, Program Manager,  
SCDOT (803) 737-0181**





PLEASE PRINT NAME AND ADDRESS

NAME

ADDRESS

Eloise Smith	414 Sassangua Dr. Georgetown, S.C.
Alvin Smith	" " " "
Jimmy Smith	414 Sassangua Dr. Georgetown, S.C.
<del>Jimmy Smith</del>	806.7 Sherman Pl Conway S.C.
Shelia S. Jim Watson	13676 N Fraser St Georgetown SC
Vanessa Aklin	10510 Carvers Bay Rd Hwy SC 29554
Richard Pressley	32 Prosser Rd Hemingway S.C. 29554
Shanika Stafford	63 Canalwood Trl, Hemingway, SC 29554
Lilly Woodale	747 Hicks Dr Hemingway S.C. 29554
Jay Hecker	500 China Grove Lane Georgetown
Lucy Pope	148 Pope Lane Hemingway SC 29554
Monty Lisa Martin	275 Yaukannan Lake Drive, Georgetown SC
Nyesha Cooper	116 Canalwood Tr Hemingway SC 29554
Alvina Cole	416 Ford Village Rd. Georgetown, SC 29440
Larry J. Coley	416 Ford Village Rd. Georgetown SC. 29440
Charles Kinison	7612 Parkwood Drive Myrtle Beach, SC. 29572
Lanard Stafford	185 Vernon Way, Hemingway SC. 29554
Hutto + Franconia	18533 N Fraser St Georgetown, SC 29440
Peter West	18500 N Fraser St Georgetown SC 29440
Jay Lambert	7664 Hwy 701 S. Conway
Wanda Davis	545 Nick Dr. Hemingway S.C. 29554
Roy Deas	141 Gabriel St G.T.W., SC 29440
Ben Dease	2231 Exod Dr 29440
Gwen Mishae	8899 Hwy 701 S., Conway SC 29577
FRED GRAHAM	8929 Hwy 701 S CONWAY S.C.

**PLEASE PRINT NAME AND ADDRESS**

**NAME**

**ADDRESS**

Jacqueline Gass

1860 Cohen Drive, Hemingway S.C. 29554

Samuel D. Wark

842 Roundleaf Lane Hemingway SC 29534

Strelia Samper

56 Roundleaf Lane Hemingway SC 29534

Bette Bryson

3304 Betty St, Conway SC 29527

Mike Granger

9111 Dapper Dr Conway SC 29527

Tom & STEVE

Johnny Mout

1599 Exodus Drive Georgetown SC 29440

Bobby Harrelson

2045 MINERAL Springs Rd. Conway SC 29527

Jay Porter / Rachie

4157 Sandpit Rd Johnsville SC 29555

Patricia Logan

4915 Hwy 472 Conway SC

Wanda Squires

120 Screven St., G'town, SC

Curtis White

1404 Old Road Hemingway SC

Meraldine White

1404 Old Lee Rd. Hwy 5, SC 29554

LAMAR YOUNG

2488 Tapsaw Rd.

Ryan Yang

Harold West

1854 N. Fraser St. Georgetown SC

DRENDA Small

1701 WHITEHOUSE RD, Georgetown SC 29440

Mary Sue Martin

8809 Hwy 701 South Conway SC 29527

Freddie L. Martin

8809 Hwy 701 South Conway SC 29527

Larry Moore

21101 N Fraser Georgetown

James C. Carr

21101 N FRASER - 11

W. Wayne Elliott

437 Tom Cribbs Rd Hemingway SC 29554

Casey F Haseben

247 Caesar Dr Georgetown SC 29440

Kim Myers

14343 Pleasant Hill Dr., Hemingway

Richard Noggle

5498 Rose Hill Rd Georgetown SC 29440



**PLEASE PRINT NAME AND ADDRESS**

**NAME**

**ADDRESS**

JAMES MACDONALD	1829 N. FRASER ST GEORGETOWN 29440
Rosiland Brown	4391 Old Pee Dee Rd Hemingway, SC 29554
CLARENCE W Smart	2715 Pee Dee Hwy Conway SC 29527
Chantry Windley	1304 Lucy Grier Rd Georgetown SC 29440
Tena G. Fonteau	1774 Jackson Village Rd Gtwn, SC 29440
Prinda F. McKee	1193 Trinity Rd Georgetown, S.C. 29440
VERNATINE MOORE	578 Lucy Grier Rd Georgetown, SC 29440
Willie Smith	1479 Old Pee Dee Rd Hemingway S.C. 29554
Volsena Chadmon	12411 Carvers Bay Rd Hemingway S.C. 29554
Leon Todd, DEBBIE	52 YAUHANNNAH LAKE DR Georgetown
LA Brown	4325 Hwy 501 W Conway S.C. 29526
Mymmy	1120 Gilbert Rd Conway SC 29527
David & Inez Morant	2613 Jackson Village Rd. Georgetown, SC 29440
Wanda Wiggins	9251 Hwy 701 South Conway SC 29527
Hallen Bonnie	57 Bonnie Way Hemingway SC 29554
SEA Hemingway	107 N. Rossmore Ave. Andrews, SC 29570
Chuck Granger	1679 HILLY LAKE CONWAY SC 29527
LAMOND Cutting	4433 Carvers Bay Rd Hemingway S.C. 29554
Nancy Carr	P.O. Box 603 Gtwn SC 29442
Chris Clark	1230 Highmarket St. Georgetown SC 29440
Wendy Goss	235 Thurman Rd Hemingway SC 29554
Louise Pope	148 Pope Lane Hemingway SC 29554
Hat Duen	22 Trinity Rd Hemingway SC 29554
Brad Brnell	75 Matthew St Georgetown S.C. 29440
Saressa Bromell	75 Matthew St Georgetown SC 29440



**PLEASE PRINT NAME AND ADDRESS**

<u>NAME</u>	<u>ADDRESS</u>
Tony Jacobs	425 Forest Ave Georgetown S.C. 29440
Nardene Wilson	1189 Cohen Drive Hemingway SC 29554
Daniel Blutor	903 Cox Ferry Circle Conway SC 29526
Kenny Ruhl	9265 Hwy 701 Smlr Conway SC. 29527
Rachel Rabon	" "
Dianne Bozen	9305 Beaver Run Drive Conway SC
April W. Simons	596 Wister Rd, Hemingway, SC 29559
Ann Long	5778. Plantersville Rd., Geo. 29440
Furman Long	" " " "
Harry Avant	5111 Jackson Village Rd Gtr 29440
Richard Avant	9191 Little Hill DR Conway SC 29527
MARIE Holden	270 Bawick Trail Hemingway SC 29554
Dellina Goss	1161 Cohen Dr Hemingway S.C. 29554
Annette Goss	35 Roundleaf Ln Hemingway SC 29554
Gilbert & Patricia Cox	215 Yaukannah Lake Drive, Georgetown SC 29440
Alicia Alai	12 Wayman Dr Hemingway SC.
RAY C. FUNNYE	95 BANTA LN, Georgetown, SC 29440
223 GAUHANNAH LK. DR.	<del>George A. Funnye</del>
George Avant Jr.	18620 North Fraser Street GTOWN. SC. 29440
Walter Rhymor	9150 Hwy 401 S. Conway S.C. 29527
Marilyn Carr	89 Thurmond Rd Hemingway S.C. 29554



PLEASE PRINT NAME AND ADDRESS

NAME

ADDRESS

Loretta Redick

35 Yauhannah Lake Dr. Georgetown SC 29440

Wendell Gwathen

9251 Hwy 701-S Conway 29527

Annette Frink

4346 Old Pee Dee Rd Hemingway SC 29554

James Elder

43 Elbow 2 Rd.

Paul Davis

493 Hicks Dr Hemingway S.C. 29554

Elmer Wilkes

VICTOR LANCE

288 JOE RICE LOOP HEMINGWAY SC

M/M Phillip Sprille

2010 Pac New Hwy Conway, SC 29527

Jessamine Reddick

2821 Boell Rd Georgetown SC 29440

Lashawn Snow

2450 Old Pee Dee Rd Hemingway SC 29554

Anna Martin

81295 N. Fraser St Town, SC 29440

Penny R. Frink

P.O. Box 1504; Hemingway, SC 29554

LEO J. MARTIN JR.

29049 N FRASER ST GEORGETOWN SC

Edie-Joe

IVA Stewart

194 Cohen Drive Hemingway SC 29554

952 Lucy Geise Rd Georgetown SC 29440

P.O. Box 1035 Conway SC 29528

1346 Yauhannah Lake GGT

6998 Douglas Hwy Conway SC 29527

8150 Hwy 701-S CONWAY

20714 N. FRASER ST GEORGETOWN, SC 29440

1601 N. Fraser St., Georgetown, SC 29440

699 Folly Grove Rd, Hemingway SC 29554

PLEASE PRINT NAME AND ADDRESS

NAME

ADDRESS

Steven Sherwood

PO Box 755 Hemingway SC 29554

Benny Hinson

4031 Hwy 701 S. Conway SC

Annie Ford

5020 Exodus Dr Georgetown S.C.

Pearline Bremell

5020 Exodus Dr Georgetown SC

Joe Young

2413 Topsom Rd, Georgetown S.C.

Edna Holmes

291 1st Drive Georgetown S.C.





COASTAL  
CONSERVATION  
LEAGUE

Mr. Bener Amado  
RPG – 2 Bridge Engineer  
S.C. Department of Transportation  
P.O. Box 191  
Columbia, SC 29202

July 2, 2008

Re: Proposed Replacement of US 701 Bridges in Horry and Georgetown Counties

The South Carolina Coastal Conservation League submits the following comments on the proposed 701 bridges replacement project. The League acknowledges that many of the bridges in this state are in need of repair and replacement including the replacement of 2.4 miles of US 701 and the replacement of the three bridges over the Great Pee Dee River, Pee Dee River Overflow and Yauhannah Lake. This project is not a bridge replacement project, however, but a project to replace the existing structures with new and larger bridges. The new bridge designs will result in significant environmental impacts to the area.

The design specifications show that the new bridges are four lane bridges, two lanes that can be expanded to four lanes that will have direct, indirect and cumulative impacts to the project area. SCDOT has said that the bridges are being designed in anticipation of the widening of Highway 701.

*"Nature and Community in Balance"*

P.O. Box 1861 • Beaufort, S.C. 29901-1861 • Telephone (843) 522-1800 • Fax (843) 525-1197  
P.O. Box 1765 • Charleston, S.C. 29402-1765 • Telephone (843) 723-8035 • Fax (843) 723-8308  
1207 Lincoln Street, Ste. 203-C • Columbia, S.C. 29201 • Telephone (803) 771-7102 • Fax (803) 771-7103  
P.O. Box 603 • Georgetown, S.C. 29442-0603 • Telephone (843) 545-0403 • Fax (843) 545-8854  
www.coastalconservationleague.org • info@sccl.org

The new bridge designs increase the importance of the Environmental Assessment (EA) for this project; requiring it to be thorough and include alternatives to three new four lane bridges. As required by NEPA, SCDOT will have to look at direct and cumulative impacts of the 4 lane bridges and because you are building it in anticipation of the widening of the highway, Highway 701 between Conway and the City of Georgetown needs to be included in the project area and the impacts of the road widening be included in the Environmental Assessment.

The Environmental Assessment will need to look at impacts that include, but are not limited to, the impacts of construction and access roads on wetlands, wildlife, the Great Pee Dee River, the Waccamaw Wildlife Refuge and nearby communities, with particular attention given to impacts to the Rafinesque big-eared bat roost on the existing bridge.

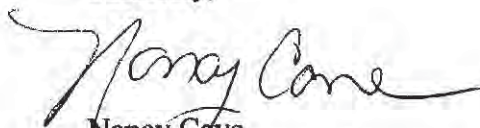
Pre and post construction storm water run off and its impacts to the Great Pee Dee and the Refuge need to be assessed, as does the noise impact of both construction and traffic on Cowford Lake, its kite and wood duck nesting sites and the Refuge nature trail.

The cumulative impacts of three four lane bridges on the widening of Hwy 701 and the secondary development that will result from a four lane highway need to be a part of the Environmental Assessment. It is our opinion that the project's Environmental Assessment and the scope of the project will predicate the need for an Environmental Impact Statement, as required under NEPA.

I appreciate your allowing the Coastal Conservation League to comment on this project.

Thank you.

Sincerely,



Nancy Cave  
North Coast Office Director

cc:  
David Farren  
Southern Environmental Law Center



**PROPOSED REPLACEMENT OF US 701  
GEORGETOWN AND HORRY COUNTIES, S.C.  
PUBLIC HEARING COMMENTS**

(Please Print)

(Please choose one:)

**NAME**

☒ Mr.  
☐ Mrs.  
☐ Ms.  
☐ Mr. & Mrs.

North Davis

**ADDRESS**

443 Hicks Dr

Henrievue

SC

29551

Street/Route

City

State

Zip Code

**COMMENTS**

We're in desperate need of new bridges  
It will be a god send. It's good that traffic will not  
be detoured. The question about 4 lanes could be solved  
by widening of the proposed bridges.

**Mail Comments to:** Mr. Bener Amado, P.E.

Program Manager

S. C. Department of Transportation

Post Office Box 191

Columbia, SC 29202



Written comments will be accepted until June 30, 2008.

**B-235**

**PROPOSED REPLACEMENT OF US 701  
GEORGETOWN AND HORRY COUNTIES, S.C.  
PUBLIC HEARING COMMENTS**

(Please Print)

(Please choose one:)

**NAME**

☒ Mr.

☐ Mrs.

☐ Ms.

☐ Mr. & Mrs.

*Charles Hinson*

**ADDRESS**

*7612 Parkwood Drive Myrtle Beach, S.C. 29572*

Street/Route

City

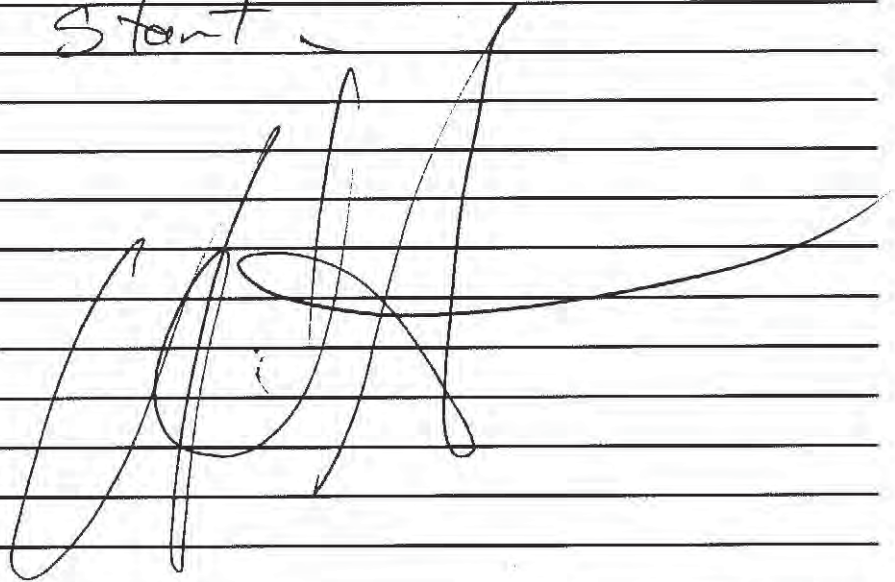
State

Zip Code

**COMMENTS**

*Need 4 lanes now*

*It is going to fall in  
before you start*



**Mail Comments to:** Mr. Bener Amado, P.E.

Program Manager



S. C. Department of Transportation

Post Office Box 191

Columbia, SC 29202

Written comments will be accepted until June 30, 2008.



PROPOSED REPLACEMENT OF US 701  
GEORGETOWN AND HORRY COUNTIES, S.C.  
PUBLIC HEARING COMMENTS

(Please Print)

(Please choose one:)

NAME

☒ Mr.

☐ Mrs.

☐ Ms.

☐ Mr. & Mrs.

GARY GAUSE

ADDRESS

8067 Sherman Pl Conway SC 29327

Street/Route

City

State

Zip Code

COMMENTS

About Time Better Later Than  
Never we needed this Bridge very bad  
for years

Mail Comments to:

Mr. Bener Amado, P.E.

Program Manager

S. C. Department of Transportation

Post Office Box 191

Columbia, SC 29202



Written comments will be accepted until June 30, 2008.

B-237



PROPOSED REPLACEMENT OF U.S. 701 BRIDGES IN  
HORRY/GEORGETOWN COUNTIES  
PUBLIC MEETING COMMENTS

(Please Print)

(Please choose one:)

NAME

Mr.

Mrs.

Ms.

Mr. & Mrs.

Eddie Young

ADDRESS

186

Sarah Dr

Georgetown SC.

29440

Street/Route

City

State

Zip Code

COMMENTS

Bridge Replacement Project

You are talking 4 Lane Two Lane Now

& Two Lane later Why Not do All one time

Why shut us down twice Just shut us down one time

Eddie Young

Mail Comments to:

Mr. Bener Amado

RPG - 2 Bridge Engineer

S. C. Department of Transportation

Post Office Box 191

Columbia, SC 29202



Written comments will be accepted until July 2, 2008.

Comments on US 701 Bridges

Name: BRENDA SMALL

Address 1701 WHITEHOUSE RD  
GEORGETOWN SC 29440

Comments:

Yauhannah Lake Bridge

Drop of 1.5 feet

Area has been patched

Dip still exists - this is scary to cross over.

BRIDGE HAS SEEMED TO BE IN  
FALLING STAGE SINCE MID -90's  
AND ~~WE~~ I HAVE WONDERED IF REGULAR  
INSPECTION INTERVALS DID NOT FIND THIS.  
I AM AWARE THAT FUNDING IS NECESSARY  
BUT NECESSITY OF A SAFER STRUCTURE  
WAS KNOWN BY RESIDENTS THEN.  
WHY NOT SCDOT? OR MAYBE THEY  
WERE AWARE BUT COULD NOT DO ANYTHING.

IS BRIDGE SAFE ENOUGH TO WITHSTAND  
A 2 YEAR WAIT FOR NEW CONSTRUCTION?

WILL NEW BRIDGE BE 2 OR 4 LANES?  
HOW LONG WILL IT TAKE? WILL PLANS BEGIN IMMEDIATELY?

Mail to: Mr. Boner Amado

SCDOT

P.O. Box 191

Columbia, SC 29202

PROPOSED REPLACEMENT OF U.S. 701 BRIDGES IN  
HORRY/GEORGETOWN COUNTIES  
PUBLIC MEETING COMMENTS

(Please Print)

(Please choose one:)

NAME

Mr.

Mrs.

Ms.

Mr. & Mrs.

Gallen Bouie

ADDRESS

57 Bouie Way Henningway NC 29554  
Street/Route City State Zip Code

COMMENTS

Please keep it open

Mail Comments to:

Mr. Bener Amado

RPG – 2 Bridge Engineer

S. C. Department of Transportation

Post Office Box 191

Columbia, SC 29202



Written comments will be accepted until July 2, 2008.

PROPOSED REPLACEMENT OF US 701  
GEORGETOWN AND HORRY COUNTIES, S.C.  
PUBLIC HEARING COMMENTS

(Please Print)

(Please choose one:)

NAME

Mr.

☒ Mrs.

Ms.

Mr. & Mrs.

*Lilly Waddell*

ADDRESS

*747 Hicks Dr. Hemmingway S.C. 29554*

Street/Route

City

State

Zip Code

COMMENTS

*I will for please keep  
the bridge open we need it  
to go to work and go other places  
and hoping there for soon*

*Love in Christ*

*Lilly Waddell*

Mail Comments to: Mr. Bener Amado, P.E.

Program Manager

S. C. Department of Transportation

Post Office Box 191

Columbia, SC 29202



Written comments will be accepted until June 30, 2008.



PROPOSED REPLACEMENT OF US 701  
GEORGETOWN AND HORRY COUNTIES, S.C.  
PUBLIC HEARING COMMENTS

(Please Print)

(Please choose one:)

NAME

Mr.

Mrs.

Ms.

Mr. & Mrs.

Jaye Hickson

ADDRESS

500 China Grove Lane Georgetown SC 29440

Street/Route

City

State

Zip Code

COMMENTS

We need a new bridge NOW — We

travel this bridge twice a day and we  
can feel it is weakening each month.

Why are we waiting 18 months when  
the upper state counties can get bridges  
and new roads alot faster than ~~the~~  
Georgetown - Horry but everyone wants to  
come to the beach! I think this should  
be 4 lanes as traffic grows each year.

Jaye Hickson

Mail Comments to:

Mr. Bener Amado, P.E.

Program Manager

S. C. Department of Transportation

Post Office Box 191

Columbia, SC 29202



Written comments will be accepted until June 30, 2008.

PROPOSED REPLACEMENT OF U.S. 701 BRIDGES IN  
HORRY/GEORGETOWN COUNTIES  
PUBLIC MEETING COMMENTS

(Please Print)

(Please choose one:)

NAME

Mr. BEA DEASE

Mrs.

Ms.

Mr. & Mrs. \_\_\_\_\_

ADDRESS

2231 EXDAUS DR

GI

SC

29440

Street/Route

City

State

Zip Code

COMMENTS

NONE

Mail Comments to:

Mr. Bener Amado

RPG – 2 Bridge Engineer

S. C. Department of Transportation

Post Office Box 191

Columbia, SC 29202



Written comments will be accepted until July 2, 2008.



**PROPOSED REPLACEMENT OF US 701  
GEORGETOWN AND HORRY COUNTIES, S.C.  
PUBLIC HEARING COMMENTS**

(Please Print)

(Please choose one:)

**NAME**

Mr.

Mrs.

Ms.

Mr. & Mrs.

Mr. Larry Cley

**ADDRESS**

416 Fordway Georgetown SC 29440

Street/Route

City

State

Zip Code

**COMMENTS**

Just want the ~~bridge~~ old bridge  
to stay open. ~~while~~ while you all work  
on the ~~new~~ new one

Mail Comments to:

Mr. Bener Amado, P.E.

Program Manager

S. C. Department of Transportation

Post Office Box 191

Columbia, SC 29202



Written comments will be accepted until June 30, 2008.



**PROPOSED REPLACEMENT OF US 701  
GEORGETOWN AND HORRY COUNTIES, S.C.  
PUBLIC HEARING COMMENTS**

(Please Print)

(Please choose one:)

**NAME**

Mr.

Mrs.

Ms.

Mr. & Mrs.

Annie Wade

**ADDRESS**

5020 Exodus Dr Georgetown SC 29440

Street/Route

City

State

Zip Code

**COMMENTS**

I am welcoming a two land bridge, it  
would be more safer and convenient for every-  
one, with all the new settlement in the area  
it shouldn't be traffic jams. I am very excited.

Mail Comments to: **Mr. Bener Amado, P.E.**

**Program Manager**

**S. C. Department of Transportation**

**Post Office Box 191**

**Columbia, SC 29202**



Written comments will be accepted until June 30, 2008.

PROPOSED REPLACEMENT OF U.S. 701 BRIDGES IN  
HORRY/GEORGETOWN COUNTIES  
PUBLIC MEETING COMMENTS

(Please Print)

(Please choose one:)

NAME

Mr. ☒

Mrs. ☐

Ms. ☐

Mr. & Mrs. ☐

William Davis

ADDRESS

8150 Hwy 701-S Conway SC 29527

Street/Route

City

State

Zip Code

COMMENTS

We Needs to Keep Bridge  
Open Gas is to Expensive  
to go around AND Com through  
17 Georgetown or 378 Johnsonville  
People in the Community Needs  
Jobs.

Mail Comments to:

Mr. Bener Amado

RPG - 2 Bridge Engineer

S. C. Department of Transportation

Post Office Box 191

Columbia, SC 29202



Written comments will be accepted until July 2, 2008.

B-246



**PROPOSED REPLACEMENT OF US 701  
GEORGETOWN AND HORRY COUNTIES, S.C.  
PUBLIC HEARING COMMENTS**

(Please Print)

(Please choose one:)

**NAME**

Mr.

Mrs.

Ms.

Mr. & Mrs.

Pearline Bromell

**ADDRESS**

5020 Exodus DR Georgetown S.C 29440

Street/Route

City

State

Zip Code

**COMMENTS**

Yes I am excited about the new  
bridge. Looking forward to the future of  
changes for the County.

Mail Comments to: **Mr. Bener Amado, P.E.**

**Program Manager**

**S. C. Department of Transportation**

**Post Office Box 191**

**Columbia, SC 29202**



Written comments will be accepted until June 30, 2008.

PROPOSED REPLACEMENT OF US 701  
GEORGETOWN AND HORRY COUNTIES, S.C.  
PUBLIC HEARING COMMENTS

(Please Print)

(Please choose one:)

NAME

☒ Mr.

☐ Mrs.

☐ Ms.

☐ Mr. & Mrs. Wilfred Rhysman

ADDRESS

9150 Hwy 701 S Conway S.C 29527

Street/Route

City

State

Zip Code

COMMENTS

Everyone was very nice & very  
informative. Thank you all.

Now get the Bridge started

Mail Comments to:

Mr. Bener Amado, P.E.

Program Manager

S. C. Department of Transportation

Post Office Box 191

Columbia, SC 29202



Written comments will be accepted until June 30, 2008.

B-248

**PROPOSED REPLACEMENT OF U.S. 701 BRIDGES IN  
HORRY/GEORGETOWN COUNTIES  
PUBLIC MEETING COMMENTS**

(Please Print)

(Please choose one:)

**NAME**

Mr.

Mrs.

Ms.

Mr. & Mrs.

*James Stewart*

**ADDRESS**

*1038 Cohen Drive Horryville SC*

*2951*

*288*

Street/Route

City

State

Zip Code

**COMMENTS**

*When closed the bridge closed down once and for  
the last time*

**Mail Comments to:**

**Mr. Bener Amado**

**RPG – 2 Bridge Engineer**

**S. C. Department of Transportation**

**Post Office Box 191**

**Columbia, SC 29202**



**Written comments will be accepted until July 2, 2008.**

## **Design Public Hearing Meeting Input**



**PROPOSED BRIDGE REPLACEMENTS  
ON US 701 OVER THE GREAT PEE DEE RIVER, PEE DEE  
RIVER OVERFLOW AND YAUHANNAH LAKE**

Georgetown and Horry Counties

**Location and Design Public Hearing**

**Project:**

In an effort to maintain safe roadways for the citizens of Georgetown and Horry Counties, the South Carolina Department of Transportation (SCDOT) is proposing replacement of the existing bridges over the Great Pee Dee River, Pee Dee River Overflow and Yauhannah Lake along an approximate 2 mile stretch of US 701. The SCDOT determined that these three (3) bridges are structurally deficient and functionally obsolete.

The new bridges will be constructed adjacent to the existing roadway alignment. The new structures will provide two travel lanes, one in each direction of travel. New bridge approach roadways and new connecting roadways between the bridges will also be constructed.

**Hearing and Hearing Agenda:**

The Hearing will be conducted on Tuesday, November 10, 2009, between 6:00 p.m. and 8:00 p.m. at the Mt. Tabor Baptist Church in Yauhannah Community, Georgetown County. The church is located at the US 701/Tabor Drive intersection, about 3 miles south of the bridge. From 6:00 p.m. to 7:00 p.m., an informal drop-in type format will be held. The presentation and formal comment portion of the hearing will be held from 7:00 p.m. until 8:00 p.m. Citizens who would like to make public comments should sign up to speak no later than 6:45 p.m. Each speaker will be allotted two (2) minutes to speak and their time is not transferable to another person.

**Purpose of the Hearing:**

The Public Hearing will provide information concerning the proposed bridge replacement and solicit input from area residents. Another purpose of the hearing will be to gather information from the public or any interested organization on historic or cultural resources in the area. Engineering and environmental personnel from SCDOT and its consultant will be available prior to the formal hearing to discuss the project with interested citizens on an individual basis. Tentative schedules for construction and right of way acquisition will be discussed. Further project details, including an environmental assessment of the project's effects, will be available for review and property owners near the project area are requested to attend. Maps and drawings of the proposed improvements will be available and attendees may ask questions and provide comments regarding the possible social, economic, and environmental effects of the project.

**Review**

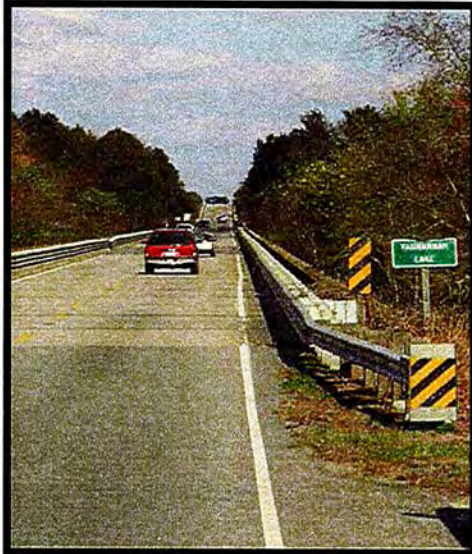
The environmental document, related maps and displays as well as other pertinent data will be available for public review fifteen days prior to the hearing at the SCDOT's Central Office at 955 Park Street in Columbia and at SCDOT's District office at 3018 E. Palmetto Street in Florence. Additional information concerning the project may be obtained by contacting Assistant Program Manager W. "Tyke" Redfearn at 803-737-1430 in Columbia. Persons with disabilities who may require special accommodations to attend the hearing should contact Mrs. Karen Davis at 803-737-1549.

**South Carolina Department of Transportation  
and Federal Highway Administration**

**ANNOUNCEMENT**  
**LOCATION AND DESIGN PUBLIC HEARING**  
**TO BE HELD ON THE PROPOSED**  
**REPLACEMENT OF US 701 BRIDGES**



**PUBLIC HEARING TO BE CONDUCTED BY THE SOUTH  
CAROLINA DEPARTMENT OF TRANSPORTATION**



*Public Hearing*

**Topic:** Proposed Replacement of  
US 701 Bridges

**When:** Tuesday, November 10, 2009

**Where:** Mt. Tabor Baptist Church  
Intersection of US 701 and Tabor  
Drive

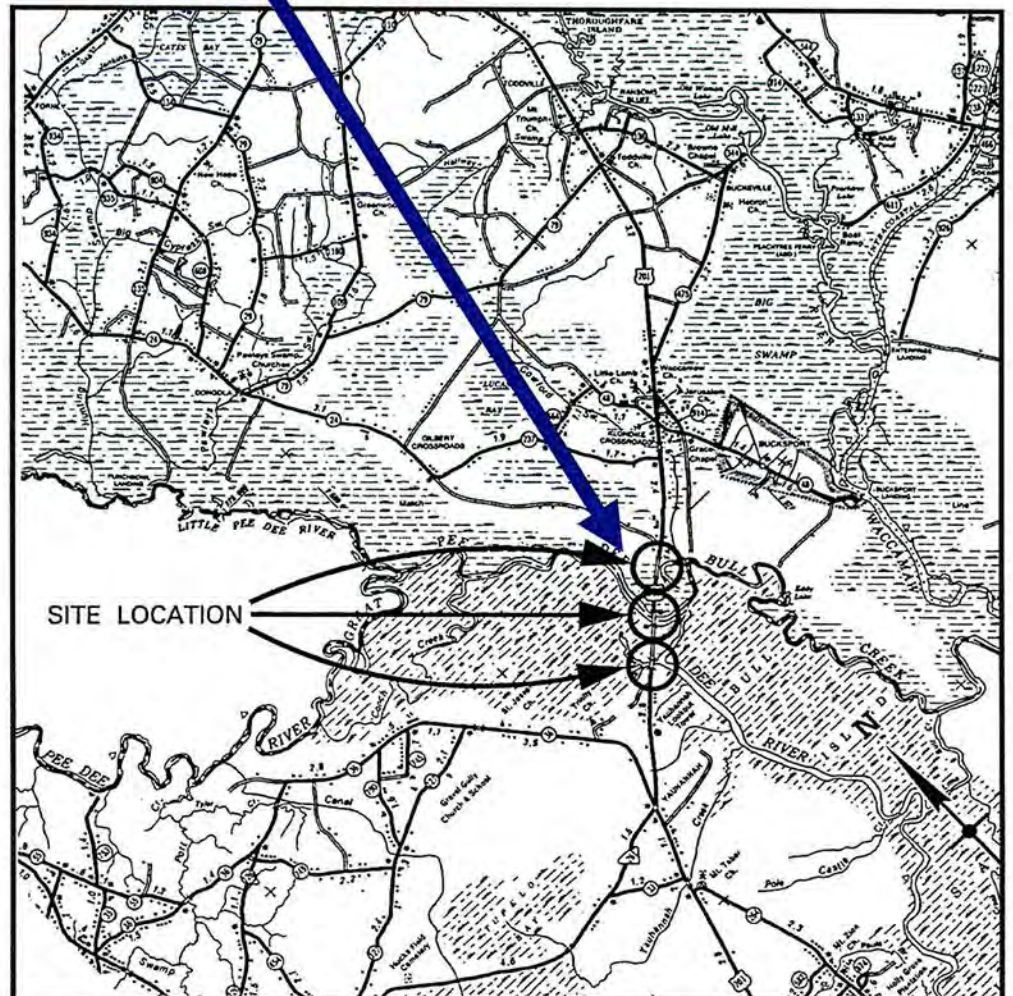
**Time:** 6:00 p.m. to 8:00 p.m.  
Sign-in begins at 6:00 p.m. Formal  
presentation begins at 7:00 p.m.

On Tuesday, November 10th, the South Carolina Department of Transportation (SCDOT) will hold a Location and Design Public Hearing at the Mt. Tabor Baptist Church in Yauhannah Community, Georgetown County. The church is located at the US 701/Tabor Drive intersection, about 3 miles south of the bridge. The objective of this meeting is to discuss the proposed US 701 Bridge Replacement project with the community and solicit their comments.

The project is located in Georgetown and Horry Counties and consists of the replacement and realignment of approximately 2.4 miles of US 701 including the replacement of the three existing structurally deteriorated and functionally obsolete bridges over the Great Pee Dee River, Pee Dee River Overflow and Yauhannah Lake. See map on reverse side. The proposed realignment begins at the US 701/Trinity Road intersection in Georgetown County and ends at the US 701/Lucas Bay Road intersection in Horry County. Several alternative alignments were studied, and the preferred alternative alignment is located 55 feet downstream of existing US 701. Further project details, including an environmental assessment on the project's effects, will be available for review. Representatives of SCDOT and its consultant will be available to answer questions. An information package and blank comment sheets will also be available.

**For additional information on this meeting contact Mr. W. "Tyke" Redfearn, Assistant Program Manager, SCDOT (803) 737-1430.**







**Proposed US 701 Bridge Replacement Project Over the Great Pee Dee  
River, Great Pee Dee River Overflow, and Yauhannah Lake  
Horry and Georgetown Counties, South Carolina**

File No. 22.124B  
Project No. BR-BR88(044)

**SIGN IN SHEET**

Name	Address
Philip Adams	2087 Upper Topsaw Rd. GTN 29440
Wayne Powell	20515 E N. FRASER ST. G.T. 29440
Richard Neal	5579 Exodus Dr. GTWN 29440
Viola Evans	337 Trinity Road Hemingway S.C 29554
Martha Aplin	1817 Pee Dee Road Hemingway SC
<del>SHIRLEY</del>	
Louvie O. Pope	148 Pope Lane Hemingway SC 29554
Omega West	18533 W Fraser ST. Georgetown SC 29440
Marni Helder	270 Bauer Jm. Heming way SC 29554
Anna Leuy	SCDOT
Alex Roman	192 ole hunters Ln, Hemingway, SC 29554
Heather Gale	Horry Independent - Conway
Nancy Cave	Coastal Conservation League
VICTOR LANCE	288 JOE RICE LOOP HEMINGWAY SC. 29554
Laila Rishby	10083 Plantville Rd GTN 29440



**Proposed US 701 Bridge Replacement Project Over the Great Pee Dee  
River, Great Pee Dee River Overflow, and Yauhannah Lake  
Horry and Georgetown Counties, South Carolina**

File No. 22.124B  
Project No. BR-BR88(044)

**SIGN IN SHEET**

Name	Address
Irene Martin	21225 N. Fraser St. Gtown, SC 29440
Kim Blackmon	333 Garden Ave Gtown SC. 29440
Larry J. Coley	416 Ford Village Rd. Gtown SC. 29440
Lucy Pope	148 Pope Lane Hemingway, SC 29554
Gallen Bowie	57 Old Pee Dee Hemingway 29554
William Dow	57 Bowie Way Hemingway S.C.
Jane C. <del>Cole</del>	21101 N FLASER Georgetown
Elvis Dowd	
W Granger	9251 Hwy 701 S.
Wanda Granger	9251 Hwy 701 South
Holly Richardson	120 Broad St, Georgetown SC 29440
Eleanor Herriott	193 North Lp. Georgetown SC 29440
Leon D. <del>Lee</del>	
Alapearl Yates	241 Phillips Loop - Georgetown, SC 29440



**Proposed US 701 Bridge Replacement Project Over the Great Pee Dee  
River, Great Pee Dee River Overflow, and Yauhannah Lake  
Horry and Georgetown Counties, South Carolina**

File No. 22.124B  
Project No. BR-BR88(044)

**SIGN IN SHEET**

Name	Address
Connie G. Jordan	9162 Plantersville Rd. Georgetown, SC 29440
George QUANT JR.	18670 NORTH FRASER STREET Georgetown S.C. 29440
Harold West	18540 N. Fraser St Georgetown, SC 29440
Wendell L Cooper	Georgetown -
John T. Moore	Georgetown, S.C.
John W. Dams	
Lindy Kennington	9508 Plantersville Rd Georgetown, SC 29440
Berjett Murchant	18504 N. Fraser St. Georgetown, SC 29440
James Elder	
Susan Nozelle Ruben Nozelle	5498 Roswell Rd Georgetown SC 29440
Craig Sasser	222 Smith Street, Georgetown SC 29440
Sally Patel	9150 Hwy 701 S Conway SC 29527
Elizabeth Tucker	Georgetown County Planning
Harry Avant	5111 Jackson Village Rd Georgetown 29440
Geneva Alston	193 Exodus Drive Georgetown SC 29440



**Proposed US 701 Bridge Replacement Project Over the Great Pee Dee  
River, Great Pee Dee River Overflow, and Yauhannah Lake  
Horry and Georgetown Counties, South Carolina**

File No. 22.124B  
Project No. BR-BR88(044)

**SIGN IN SHEET**

**Name**

**Address**

James A. Falkenhagen	14135 N. Fraser St.
Lizzie A. Falkenhagen	14135 N. Fraser St.
Nervette Ford	512 James Milton Rd
Linda Ford	528 James Milton Rd
Kennu + Rachel Ruk	9265 Hwy 701 S. Conway, SC 29521
Marvin Meel	895 Lucy Green Rd, GT 29440

**Proposed US 701 Bridge Replacement Project Over the Great Pee Dee  
River, Great Pee Dee River Overflow, and Yauhannah Lake  
Horry and Georgetown Counties, South Carolina**

File No. 22.124B  
Project No. BR-BR88(044)

**SIGN UP TO SPEAK**

**Name**

**Address**

Nancy Cope	Coastal Conserv. League

Proposed US 701 Bridge Replacement Project Over the Great Pee Dee  
River, Great Pee Dee River Overflow, and Yauhannah Lake  
Horry and Georgetown Counties, South Carolina

File No. 22.124B  
Project No. BR-BR88(044)  
**COMMENT SHEET**  
(Please Print)

(Please choose one:)

NAME

Mr.

Mrs.

Ms.

Mr. & Mrs.

Gallen Bowie

ADDRESS

Street/Route

City

State

Zip Code

COMMENTS

I would love to see the  
New Bridge Build the Old Bridge in in  
Pork ~~into~~ Stack. WE donot want to  
See Clouser of the old Bridge close while  
New Struck is in work

Mail Comments to:

Mr. Tyke Redfearn

Assistant Program Manager

S. C. Department of Transportation

955 Park Street

Columbia, SC 29201



Written comments will be accepted until November 25, 2009

**US 701 Bridge Replacement Project of  
Great Pee Dee River, Great Pee Dee River  
Overflow, and Yauhannah Lake  
Formal Public Hearing**

Mt. Tabor Baptist Church  
18504 N. Fraser Street  
Georgetown, SC 29440  
November 10, 2009  
7:00 p.m.

---

**ADVANTAGE COURT REPORTING  
OF MYRTLE BEACH  
7201 Enterprise Road, Myrtle Beach, S.C. 29588  
650-6263**

**Team Members Present:**

Henry Phillips, SCDOT, Public Hearing Officer

Tyke Redfearn, SCDOT, Project Manager

Edward W. Frierson

Kenneth Johnson

Barry Frierson

Holly Moody

Oscar Rucker

Jeffrey S. Belcher

Harry Parrish

Tubin Basu

Micah Ceary

Richard Pittenger

Richard Ciccoliella

\* Those team members listed are those known to be present at the formal hearing; however, this list may not include all team members attending both the formal and informal hearings.

1           HENRY PHILLIPS: I think we can go ahead and  
2           get started. On my watch, I have seven p.m., so that was  
3           our announced time to begin. I'd like to welcome  
4           everyone for coming out tonight. This is a public hearing  
5           to receive information and for you to make comments  
6           through the appropriate channels on the bridge  
7           replacement project out here on US 701. My name is  
8           Henry Phillips. I'm the public hearing officer for tonight's  
9           formal portion of this program. I do want to remind folks  
10          it's not -- this formal portion is not a question and answer  
11          session, okay? In a little bit, you'll hear a presentation  
12          from Mr. Tyke Redfearn about the project. We only have  
13          one person who signed up to speak tonight, so as soon as  
14          we're past that, we can go back out, and any questions that  
15          may have come up in your mind, based on what Mr.  
16          Redfearn passes along, certainly that will be an  
17          opportunity to either ask him or any of the other folks that  
18          are here as well. I also want to also mention that, you  
19          know, this portion of the hearing is being recorded. We  
20          do have a court reporter over here to take those comments.  
21          Those comments will be included in with the official  
22          public record for this particular project. I'm not aware of  
23          any, but normally I take this opportunity to allow any  
24          elected -- local elected officials to make a statement and  
25          stuff. I'm not aware if there are any here or not. If there



1 are, if you want to raise your hand and say anything, I'll  
2 certainly give you that opportunity. Okay. All right.  
3 Next, we'll go ahead and move into Mr. Redfearn's  
4 presentation. Tyke Redfearn is the project manager for  
5 this particular project.

6 TYKE REDFEARN: Good evening, everyone, and  
7 thank you for taking your time out of your busy schedules  
8 to attend this public hearing. My name is Tyke Redfearn,  
9 and I am an assistant program manager for the South  
10 Carolina Department of Transportation, commonly known  
11 as SCDOT. I'll be presenting the bridge replacement  
12 project along US 701, also known as North Fraser Street  
13 and 4th Avenue. We realize that many of you may have  
14 questions, concerns, and or comments about the US 701  
15 bridge replacement project, and your statements are  
16 extremely important to the success of this project. We are  
17 here tonight to provide information about the project and  
18 record your statements. As earlier mentioned, please be  
19 aware that we will respond to your comments via written  
20 correspondence at a later date. The proposed project  
21 includes the replacement of three existing bridges along  
22 US Route 701. The proposed improvements include  
23 replacement of existing fourteen hundred forty foot bridge  
24 over Yauhannah Lake, the existing sixteen hundred three  
25 foot bridge over Great Pee Dee River, and the existing

1 thirteen hundred twenty foot bridge over the Great Pee  
2 Dee River overflow. The Yauhannah Lake bridge to the  
3 southwest is located wholly in Georgetown County. The  
4 Great Pee Dee River bridge in the center crosses the  
5 Horry/Georgetown County line, and the overflow bridge  
6 to the northeast is located entirely in Horry County.  
7 Construction costs are preliminarily estimated to be in  
8 excess of forty million dollars. The preferred alignment,  
9 located fifty-five feet downstream of the existing  
10 centerline, is adjacent and parallel to the existing roadway.  
11 During construction of the two mile stretch of new bridges  
12 and related roadway, traffic will remain open on the  
13 existing US 701 bridges. SCDOT will continue to monitor  
14 the existing bridges to ensure that safe travel is possible.  
15 After traffic shifts to the new highway, we'll demolish the  
16 existing bridges. The traveling surface of the new bridges  
17 will consist of two twelve foot driving lanes with ten foot  
18 shoulders, and the new roadway will have two twelve foot  
19 driving lanes with six foot paved shoulders and four foot  
20 unpaved shoulders, for a total of ten foot. With the  
21 preferred alternative, the Horry County public boat  
22 landing will not be relocated, and as much as practicable,  
23 we intend to maintain access to the landing during  
24 construction. The purpose of the project is to replace  
25 these bridges that maintain the direct connection between

1 the cities of Conway and Georgetown, as well as the  
2 communities of Bucksport and Yauhannah. The need for  
3 these replacements is twofold. First of all, the SCDOT  
4 determined through regular inspections that these bridges  
5 are structurally deficient and functionally obsolete.  
6 Second, if these bridges were closed and abandoned, the  
7 available detour route adds over thirty-seven miles to a  
8 one-way trip from the Yauhannah community to Conway,  
9 which makes the total one way distance over fifty-five  
10 miles. As you already know, this would cause entirely too  
11 much inconvenience for you in your daily travels. To  
12 review the proposed schedule, the engineering phase is  
13 currently underway. During this phase, we conduct  
14 environmental research. We develop and design bridge  
15 and roadway construction plans and specifications. And  
16 among other activities, we obtain regulatory permits. This  
17 phase will continue until the construction contractor  
18 begins with his work on the project. The environmental  
19 assessment was recently completed, and the preliminary  
20 right-of-way plans are nearing completion. The right-of-  
21 way plans allow us to determine the properties impacted  
22 along the project corridor, and the environmental  
23 assessment is a report of potential environmental impacts.  
24 Shortly after the commenting deadline, all of your  
25 comments will be reviewed and individually responded to

1 in writing. Next, the regulatory permits will be submitted  
2 for approval, and final right-of-way plans will be  
3 completed. If all goes smoothly, we anticipate that the  
4 right-of-way acquisition will begin in late spring of this  
5 year. During right-of-way acquisition -- I'm sorry, next  
6 year. During right-of-way acquisition, the affected  
7 property owners will be contacted by an SCDOT right-of-  
8 way agent. Once underway, we estimate that it will take  
9 approximately six to nine months to complete the right-of-  
10 way acquisition phase, and approximately one year to  
11 complete the permitting process for the project. We  
12 expect the construction phase to begin in the spring of  
13 2011, and the project should be completed in  
14 approximately twenty-four to thirty months, with expected  
15 project completion occurring in spring or summer of 2013.  
16 As I earlier mentioned, we are especially interested in your  
17 input, and there are several ways for you to provide your  
18 comments. As most of you are aware, you may have  
19 signed up to issue an oral comment when you arrived.  
20 You may also fill out the comment forms provided, and  
21 place them in the drop box tonight, or you may fill them  
22 out and later drop them in the mail. The deadline for  
23 submitting a written comment is Wednesday, November  
24 25th, 2009. That's the day before Thanksgiving. All  
25 comments, whether oral or written, will be addressed in

1 writing after the deadline. I would like to thank the  
2 project team, the design team, that spent a lot of hard  
3 hours working on this project. I thank you for your hard  
4 work. And then I would like to thank you all for coming  
5 tonight, and taking your time to express your concerns.  
6 On behalf of FHWA and SCDOT, we appreciate your  
7 patience and cooperation during construction of these new  
8 bridges, so that the project may be safely completed in a  
9 timely manner.

10 HENRY PHILLIPS: Thanks, Tyke. All right.  
11 Normally this is the time where I go over all the rules that  
12 apply to the citizens who come up to speak, but seeing as  
13 we only have one person who signed up to speak tonight,  
14 and I think she's probably well aware of our process, I  
15 won't bore y'all with all those details. But just to let you  
16 know that the -- when we do have these public hearings,  
17 usually the process is that, if you attend, and you wish to  
18 speak, you would sign up in advance, and then we go from  
19 there, and each person is given like two minutes, is what  
20 we go with, to get up and make their statements, their  
21 comments, those sort of things. And then they're asked to,  
22 you know, sit down and let the next person come up. So --  
23 but in this case, we only have one person signed up to  
24 speak, so I will go ahead and turn it over to Ms. Nancy  
25 Cave.

1           NANCY CAVE: I am Nancy Cave with the Coastal  
2           Conservation League, and we are in the process of just  
3           reviewing all of the documentation that we received on the  
4           Environmental Assessment, and have not made any  
5           decisions yet in regards to our positioning on this. But one  
6           thing I would like to ask to be just considered is that this  
7           bridge replacement is somewhat unique, because it is  
8           going to be in a wildlife refuge. And this wildlife refuge  
9           should be considered a very special place for all of us. So  
10          I think we need to take that in mind, and I would hope that  
11          the SCDOT, the Federal Highway, and the engineers will  
12          consider the concerns of the refuge and the impacts that it  
13          could have on the refuge going into the future. And those  
14          impacts need to be considered as both direct, indirect, and  
15          cumulative impacts that will occur because of this bridge  
16          replacement. And we would also suggest that all the  
17          alternatives for this siting of this bridge and the bridge  
18          span be thoroughly looked at as they affect the wildlife  
19          refuge and the community that is on both sides of this  
20          bridge. And we would also suggest that the  
21          accommodations being made by the bridge design be also  
22          -- those accommodations on later widening of the  
23          Highway 701 be considered. Thank you.

24               HENRY PHILLIPS: Thank you, Ms. Cave. All  
25               right. That does conclude the formal portion tonight with



1 the one speaker. It did certainly allow us more time for  
2 you to continue looking at the displays that are out here.  
3 Certainly, as Tyke mentioned, if you have some comments  
4 that you wish to leave with us, please fill those out.  
5 There's a comment box back there. If you do have some  
6 questions, there are number of folks here, both from the  
7 SCDOT and some of our representatives. We also have  
8 with us, from the Federal Highway Administration office  
9 in Columbia, Mr. Shane Belcher over there, who can also  
10 assist in maybe helping you with some of your questions.  
11 That is all we have as far as the formal portion goes. I do  
12 thank you all for coming out tonight.

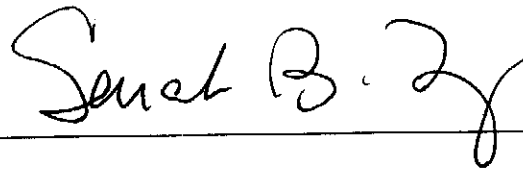
13 (THE HEARING CONCLUDED AT 7:12 P.M.)  
14  
15  
16  
17  
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21  
22  
23  
24  
25

1 STATE OF SOUTH CAROLINA )

2 COUNTY OF HORRY ) CERTIFICATE

3  
4 I, Sarah B. Fry, a Notary Public in and for the State of  
5 South Carolina, do hereby certify that the foregoing proceedings  
6 were taken by me and thereafter transcribed by me; that the 10  
7 pages contain a full, true, and correct transcription of all the  
8 proceedings; that I am not of kin to any parties to this cause of  
9 action, nor am I interested in its outcome.

10 IN WITNESS WHEREOF, I have hereunto set my  
11 hand and seal this 2nd day of December, 2009.

12  
13   
14

15 SARAH B. FRY

16 My commission expires 7/10/2010  
17  
18  
19  
20  
21  
22  
23  
24  
25



South Carolina  
Department of Transportation

January 22, 2013

Mr. Thomas Gremillion  
Southern Environmental Law Center  
601 West Rosemary Street, Suite 220  
Chapel Hill, North Carolina 27516-2356

RE: Environmental Assessment dated October 21, 2009 – US 701 Bridge Replacements over the Great Pee Dee River, Overflow, and Yauhannah Lake in Horry/Georgetown Counties [File 22.124B – Project BR88(044) – PIN 30688X]

Dear Mr. Gremillion:

Thank you for submitting comments regarding the Environmental Assessment dated October 21, 2009, for the proposed US Route 701 Bridge Replacement Project in Horry and Georgetown Counties. Your comments are included in the project file, and they will be considered as the project progresses. Your opinion is extremely important, and we appreciate your willingness to be involved.

As a result of additional information discovered after the 2009 Public Hearing, SCDOT postponed construction of the new bridges. Since then, we investigated and analyzed this new information, and as a result of that analysis, we decided to revise the proposed plan. Early this summer, we expect to publish a revised EA and to host a second Public Hearing to share the revised plan for the new bridges.

Again, I thank you for your comments, and if you have any questions or would like to discuss anything in detail, please do not hesitate to contact me at (803) 737-1430.

Sincerely,

William "Tyke" Redfearn, P.E.  
Assistant Program Manager  
RPG2 - Pee Dee Region

cc: Henry Phillips, SCDOT Environmental





South Carolina  
Department of Transportation

January 29, 2013

Mr. Jay Herrington  
Field Supervisor  
Fish & Wildlife Service  
United States Department of the Interior  
176 Croghan Spur Road, Suite 200  
Charleston, South Carolina 29407

RE: Environmental Assessment dated October 21, 2009 – US 701 Bridge Replacements over the Great Pee Dee River, Overflow, and Yauhannah Lake in Horry/Georgetown Counties [File 22.124B – Project BR88(044) – PIN 30688X]

Dear Mr. Herrington:

Your predecessor submitted comments regarding the Environmental Assessment (EA) dated October 21, 2009, for the proposed US Route 701 Bridge Replacement Project in Horry and Georgetown Counties. The comments are included in the project file, and they will be considered as the project progresses. Your office's opinion is extremely important, and we appreciate your willingness to be involved.

Since completion of the 2009 EA, we conducted extensive coordination and investigation that will culminate with the completion of a revised EA. Early this summer, we expect to publish the revised EA and to host a second Public Hearing to share the revised plan for the new bridges.

Again, I thank you for your comments and for your assistance. If you have any questions or would like to discuss anything in detail, please do not hesitate to contact me at (803) 737-1861.

Sincerely,

Edward W. Frierson  
NEPA Environmental Coordinator/Biologist

wtr:EWf

cc: Mark Caldwell, USFWS  
J. Shane Belcher, FHWA  
Henry Phillips, SCDOT Environmental  
W. Tyke Redfearn, SCDOT RPG2



