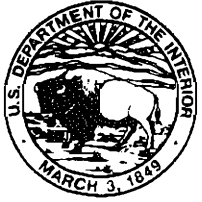


**Project: Improvements to SC Route 165 (Bacons Bridge Road) from 0.5 Miles South of SC Route 61  
(Ashley River Road) to near S-18-199 (Trolley Road) in Dorchester County, South Carolina**  
**Project No. DC-DORC(011)**  
**Pin No. 36093\_SP01**  
**File No. 18.DORC.11**

# **Proposed SC Route 165 Improvement Project Protected Species Survey Report**

**Reference Document No. 2**



# United States Department of the Interior

**FISH AND WILDLIFE SERVICE**  
176 Croghan Spur Road, Suite 200  
Charleston, South Carolina 29407

February 23, 2006

Mr. John Sabine  
Sabine & Waters  
P.O. Box 1072  
Summerville, SC 29484

Re: Widening of Bacons Bridge Road  
Dorchester County  
FWS Log No. 2006-I-0292

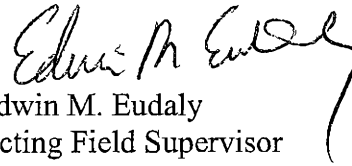
Dear Mr. Sabine:

The U.S. Fish and Wildlife Service (Service) has reviewed the plans for this proposed project. Based on our review and the information received:

- It is our opinion that the proposed action will have no effect on resources under the jurisdiction of the Service that are currently protected by the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.)(Act). Therefore, no further action is required under Section 7(a)(2) of the Act.
- We concur with your determination that the proposed action is not likely to adversely affect resources under the jurisdiction of the Service that are currently protected by the Act. Therefore, no further action is required under Section 7(a)(2) of the Act.
- It is our opinion that the proposed action is not likely to have reasonably foreseeable adverse effects on resources under the jurisdiction of the Service that are currently protected by the Act. Therefore, no further action is required under Section 7(a)(2) of the Act.
- The proposed project may impact wetlands. Please contact the U.S. Army Corps of Engineers, Charleston District for more information.

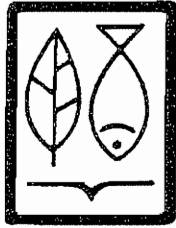
If you should have any questions, please contact Ms. Melissa Bimbi at (843)727-4707, ext. 228 and reference FWS Log No. 2006-I-0292.

Sincerely,

A handwritten signature in black ink, appearing to read "Edwin M. Eudaly". The signature is written in a cursive style with a long, sweeping tail on the final letter.

Edwin M. Eudaly  
Acting Field Supervisor

EME/MKB



# SABINE & WATERS

ENVIRONMENTAL LAND MANAGEMENT CONSULTANTS

January 18, 2006

Ms. Melissa Bimbi  
U. S. Fish & Wildlife Service  
176 Croghan Spur Road, Suite 200  
Charleston, South Carolina 29407

**SUBJECT: Results of a protected species survey conducted on approximately 3.6 miles of roadside, consisting of a 75 foot area on both sides of Bacons Bridge Road (SCHWY165), located in Dorchester County, South Carolina.**

Dear Ms. Bimbi:

This letter is written to initiate Informal Consultation with the U.S. Fish and Wildlife Service, Charleston Field Office, under Section 7 of the Endangered Species Act regarding the site referenced above.

## PROJECT LOCATION AND LIMITS / PROPOSED ACTION

The planned project consists of the widening of Bacons Bridge Road, Hwy 165, from two to four lanes. The area is approximately 3.6 miles, which crosses Hwy 642 and ends at Hwy 61 in Dorchester County. Surveys were done approximately 75 feet from the middle of Bacons Bridge Road, both on the East and West sides.

## HABITAT DESCRIPTION

The site of the proposed action consists of bottomland hardwood and mixed forested wetland, as well as upland forested areas. Approximately 75 feet on both sides of Bacons Bridge Road was surveyed, including residential and commercial areas.

**Bottomland Hardwood** was densely occupied with various typical bottomland hardwoods, ranging from 40 to 60 years in age. Canopy closure was varied from 70-80%. The hardwood overstory was less dense in wet areas and was accompanied by swamp chestnut oak (*Quercus michauxii*), bald-cypress (*Taxodium distichum*), sweet gum (*Liquidambar styraciflua*), and water oak (*Quercus nigra*). The shrub layer was composed of privet (*Ligustrum sinense*),

wax myrtle (*Myrica cerifera*), fetterbush (*Lyonia lucida*), and spruce pine (*Pinus glabra*). Where standing water excluded bottomstory vegetation, areas suitable for understory species included giant cane (*Arundinaria gigantea*), dwarf palmetto (*Sabal minor*), *Chasmanthium* sp., *Smilax* sp., and needle grass (*Juncus effusus*). Standing water occupied approximately 15% of the bottomland habitat, and ranged in depth from 2-3”.

**Mixed Forest Wetland** varied in habitat from the bottomland hardwood wetland with respect to canopy closure and the increased presence of overstory pine species. Canopy closure was very dense, approximately 85-90%. The overstory age ranged approximately from 15-25 years in areas of more recent disturbance, and 30-40 years in areas of less recent disturbance. The overstory was distributed with loblolly pine (*Pinus taeda*), water oak, swamp chestnut oak, and sweet gum. The midstory was composed of southern magnolia (*Magnolia grandiflora*), privet, and spruce pine. Little standing water was evident, 4-6%, and areas where bottomstory vegetation was suitable, species varied from giant cane, *Chasmanthium* sp., smilax (*Smilax rotundifolia*), and fetterbush.

The **Upland** varied from mixed forests to residential and commercial areas. In upland areas, overstory vegetation included loblolly pine, sweet gum, live oak (*Quercus virginiana*), white oak (*Quercus alba*) and water oak. Herbaceous vegetation in the shrub layer/understory consisted of blackberry (*Rubus* sp.), honeysuckle (*Lonicera japonica*), privet, waxmyrtle, and bracken fern (*Pteridium aquilinum*). Residential and commercial areas were surveyed and it was concluded that these areas were not suitable habitat for the presence of any endangered or threatened species listed in Dorchester County.

### LISTED SPECIES AND HABITAT REQUIREMENTS

Prior to field investigations, we consulted the July 2005 update of the South Carolina Distribution Records of Endangered, Threatened, and Candidate Species, provided to us by your office, and spoke with Julie Holling of SCDNR to determine what protected species may occur on site. Based on the list for Dorchester County and a preliminary assessment of the site based on aerial photography, the list of potentially occurring species was narrowed as follows:

Common Name	Scientific Name	Federal Status
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Threatened
Wood Stork	<i>Mycteria americana</i>	Endangered
Pondberry	<i>Lindera melissifolia</i>	Endangered
Red-cockaded Woodpecker	<i>Picoides borealis</i>	Endangered
Shortnose Sturgeon	<i>Acipenser brevirostrum</i>	Endangered

Canby's Dropwort	<i>Oxypolis canbyi</i>	Endangered
Flatwoods Salamander	<i>Ambystoma cingulatum</i>	Threatened
Chaffseed	<i>Schwalbea americana</i>	Endangered

**Bald Eagle** – The bald eagle requires shallow open water and wetland areas for foraging and undisturbed coastal, river or lakeshore areas with large trees for roosting and nesting. In the Southeast, nests are usually constructed in living dominant or codominant pine or cypress trees. Nesting sites are usually within one-half mile of water with a clear flight path to the water. The nest tree is usually the largest live tree in the area with an open view of the surrounding area (USFWS 1992).

**Red-cockaded Woodpecker** – Typical nesting habitat for red-cockaded woodpeckers consists of open stands of pines with an age of 80 to 120 years (USFWS 1992), although nesting occasionally occurs in younger trees. Longleaf pine seems to be preferred, although nests may be found in any species of southern yellow pine. Stands that are primarily hardwood or that have a dense hardwood understory are usually avoided. Foraging habitat usually consists of pine or pine-hardwood stands at least 30 years old, and with relatively open understory.

**Shortnosed Sturgeon** – The shortnose sturgeon is an anadromous fish approximately 41 to 91 centimeters long, inhabiting marine and tidal freshwater river systems along the Atlantic coast. The fish is brown to gray or black on the back, turning gold or yellow on the sides, and to white underneath (Coop. Ext. Ser/Univ. Ga. 1992). The blunt snout and 11 dorsal plates are distinctive characteristics of this sturgeon (Collins 1959).

During winter, this species occurs in salt water bays and estuaries of medium to high salinity. During late winter to early spring the shortnose sturgeon moves upstream into freshwater swamps where it will spawn among flooded trees when water temperatures reach 10-15 degrees centigrade. During summer the adults will congregate in low salinity estuaries to feed on bottom dwelling invertebrates. Eggs and larvae may be susceptible to siltation effects.

**Canby's Dropwort** – Typical habitat for this species includes wet meadows, wet pineland savannas, ditches, sloughs, and around the edges of pond cypress/pine ponds (USFWS 1992). The largest and most vigorous populations have been found to occur in open bays or ponds that are wet throughout most of the year but which have little or no canopy cover (USFWS 1990).

**Flatwoods Salamander** – Optimum habitat for the flatwoods salamander (*Ambystoma cingulatum*) is open, mesic woodland of longleaf/slash pine flatwoods maintained by frequent fires (USFWS 1997). Breeding sites are isolated pond cypress,

blackgum, or slash pine dominated depressions which dry completely on a cyclic basis. They are generally shallow and relatively small.

**Chaffseed** – Chaffseed occurs in sandy, acidic, seasonally moist to dry soils. Habitats where it most commonly occurs include open, moist pine flatwoods, fire-maintained savannas, ecotones between peaty wetlands and xeric sandy soils, and other open grass-sedge systems (USFWS 1995). Chaffseed is dependent on factors such as fire, mowing, or fluctuating water tables that maintain the open, early successional conditions that it requires.

**Wood Stork** – The wood stork is a large wading bird approximately 127 centimeters tall, with a wingspan of 1 to 1.5 meters. This species is highly colonial, usually nesting in large rookeries and feeding in flocks. The plumage is generally white, with black primary and secondary wing feathers and a short black tail. The head displays a prominent bill that is slightly decurved, thick at the base and black.

Wood storks are typically associated with freshwater and brackish wetlands. Most nesting colonies in the Southeast are located in woody vegetation, such as bald cypress, over standing water, or on islands surrounded by open water. Foraging habitat may include freshwater marshes, flooded pastures and flooded ditches (USFWS 1992). Foraging sites are often in areas of fish concentrations due to either local reproduction or drying.

**Pondberry** – Pondberry (*Lindera melissifolia*) is a deciduous, aromatic shrub growing 0.5 to 1.8 meters in height with thin, drooping glabrous or pubescent leaves that smell like sassafras when crushed. Pale yellow flowers appear in the spring before the leaves. The bright red 12-millimeter long oval-shaped fruits mature in the fall.

Pondberry is primarily found in association with wetland habitats (USFWS 1992). In South Carolina, pondberry is associated with the margins of seasonally flooded sinks, ponds, and depression in pinelands (USFWS 1993).

## **EVALUATION CRITERIA AND RESULTS**

An examination of the South Carolina Department of Natural Resources' Rare, Threatened and Endangered Species Inventory indicated that there are no documented occurrences of any federally listed species near the proposed project site. On January 6-9<sup>th</sup>, 2006 we conducted field investigations of the subject property. Field investigations consisted of pedestrian surveys with the purpose of identifying potential habitat for the species referenced above.

Our investigations led to the following conclusions regarding habitat suitability for the species referenced above:

**Bald Eagle** – Although marginal nesting habitat occurred adjacent to the site in the form of some old-growth loblolly pine and baldcypress trees, no nests were observed during the course of our pedestrian surveys.

**Red-cockaded Woodpecker** – No potential nesting or feeding habitat for this species occurs in the project area.

**Shortnosed Sturgeon** – Flooded bottomland hardwood habitat drains into the Ashley River, making the area potential habitat for shortnosed sturgeon; however no shortnosed sturgeon were observed during the survey.

**Canby's Dropwort** – Although some marginal habitat occurred in the roadside mixed pine wetland, the density of canopy, midstory, and shrub layers probably excluded the species from this property. No plants of this species were found in the project area.

**Chaffseed** – No suitable habitat for this species was found in the project area.

**Wood Stork** – Although areas associated with this species occurred, (suitable woody vegetation, and standing water areas) no typical foraging habit occurred. No wood storks were observed during the survey.

**Flatwoods Salamander** – No suitable habitat for the species was found in the project area.

**Pondberry** - Although some marginal habitat occurred in the roadside mixed pine forest (pineland depressions, seasonally flooded sinks), the density of canopy, midstory, and shrub layers probably excluded the species from this property. No plants of this species were found in the project area.

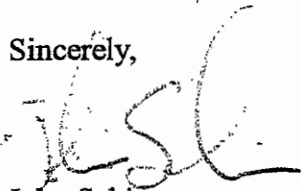
Ms. Melissa Bimbi  
January 18, 2006  
Page 6 of 7

**DETERMINATION OF EFFECT**

Based on our findings and the property's history, we believe that execution of the proposed action would have "no effect" on federally listed endangered and/or threatened species.

We ask for your concurrence with these findings. If you have questions or comments, please contact me at (843) 871-5383. Thank you for your assistance.

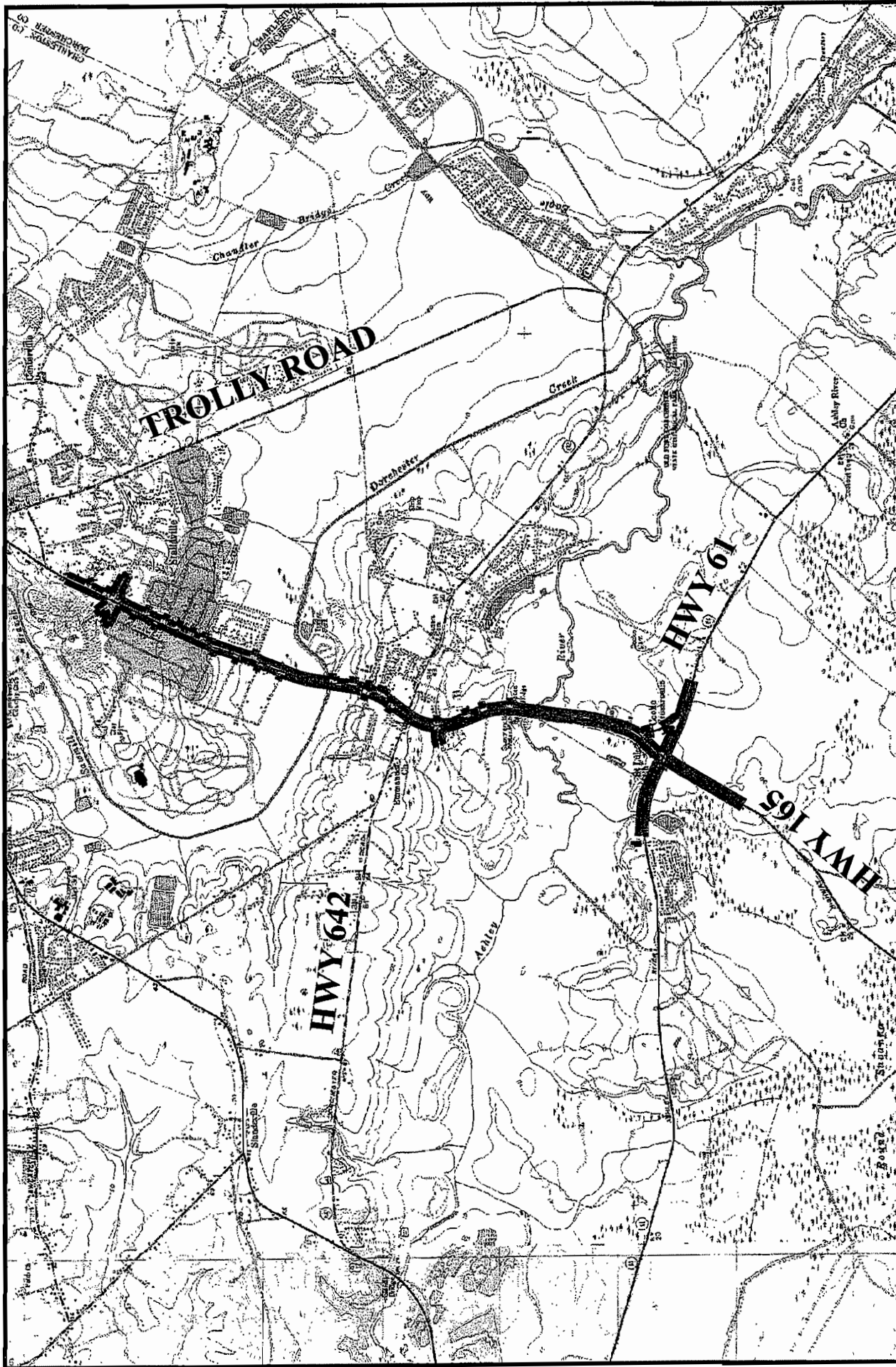
Sincerely,

A handwritten signature in black ink, appearing to read "John Sabine", written over a faint dotted grid background.

John Sabine  
Sabine & Waters, Inc.

### LITERATURE CITED

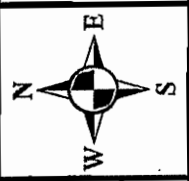
- U.S. Fish and Wildlife Service. 1990. Canby's Dropwort Recovery Plan. Atlanta, Georgia. 25 pp.
- U.S. Fish and Wildlife Service. 1992. Endangered and Threatened Species of the Southeast United States (The Red Book). Prepared by Ecological Services, Division of Endangered Species, Southeast Region, Government Printing Office, Washington, D.C. 1,438 pp. (two volumes).
- U.S. Fish and Wildlife Service. 1993. Recovery Plan for Pondberry (*Lindera melissifolia*). U.S. Fish and Wildlife Service, Atlanta, Georgia. 56 pp.
- U.S. Fish and Wildlife Service. 1995. List of Endangered, threatened and candidate species habitat, fruiting, flowering period and county occurrences. USFWS Charleston Office.
- Porcher, Richard D. 1995. *Wildflowers of the Carolina Lowcountry and Lower Pee Dee*. Columbia: University of South Carolina Press.
- Nelson, John B. 1986. The Natural Communities of South Carolina Initial Classification and Description. South Carolina Wildlife and Marine Resource Department.



**LEGEND**

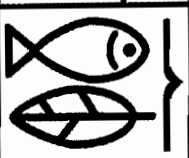
— COORDIOR

LAT 32.97073°  
LONG 80.19891°



**LOCATION MAP**  
**HWY 165**  
**DORCHESTER COUNTY, SC**

0 4,000 8,000  
Feet



Disclaimer: This map is a graphic representation of data obtained from various sources. All efforts have been made to warrant the accuracy of this map. The users of this map, however, assume all responsibility and liability for the use of this map.

Created By: Matthew T. Ziskle - [mziskle@ahinc.net](mailto:mziskle@ahinc.net)  
Date Created: January 18, 2006  
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Environmental Land Management Consultants  
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803-799-1234  
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