

Appendix J

**Threatened and Endangered
Species Lists and Agency
Coordination**



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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



August 6, 2008

Ms. Amanda Brooks Queen
Environmental Projects Manager
South Carolina Department of Transportation
Post Office Box 191
Columbia, SC 29202-0191

Re: I-73 Northern Phase, Biological Assessment

Dear Ms. Queen:

The U.S. Fish and Wildlife Service (Service) has received the results of the Biological Assessment (BA) for the proposed construction of the northern phase of I-73 between I-95 in Dillon County and I-74 near Hamlet, North Carolina. The BA, completed by the South Carolina Department of Transportation (SCDOT), provides a brief description of the project and its proposed corridor, a review of habitats within the corridor and a list of the nine protected species known to occur within Dillon and Marlboro Counties, SC as well as Richmond and Scotland Counties, NC.

The Service recommends SCDOT contact the National Marine Fisheries Service (NMFS) for consultation requirements regarding the shortnose sturgeon, *Acipenser brevirostrum*. The bald eagle, *Haliaeetus leucocephalus*, was delisted in August 2007 and no longer protected under the Endangered Species Act, 1973; therefore no section 7 consultation is required.

The BA concluded that the proposed activity will have no effect on any of the species reviewed. Upon view of the information provided, the Service concurs with conclusions in the BA regarding listed species. However, obligations under section 7 of the Endangered Species Act must be considered if (1) new information reveals impacts of this identified action that 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 determined that may be affected by the identified action.

**TAKE PRIDE
IN AMERICA** 

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

Sincerely,

A handwritten signature in black ink, appearing to read "Timothy N. Hall". The signature is written in a cursive style with a large initial "T".

Timothy N. Hall
Field Supervisor

TNH/MAC

cc: Mr. Patrick Tyndall, FHWA, Columbia, SC



United States Department of the Interior



FISH AND WILDLIFE SERVICE
South Carolina Ecological Services
176 CROGHAN SPUR ROAD, SUITE 200
CHARLESTON, SC 29407
PHONE: (843)727-4707 FAX: (843)727-4218
URL: www.fws.gov/charleston/

Consultation Code: 04ES1000-2017-SLI-0009

October 06, 2016

Event Code: 04ES1000-2017-E-00009

Project Name: I-73 North

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: I-73 North

Official Species List

Provided by:

South Carolina Ecological Services
176 CROGHAN SPUR ROAD, SUITE 200
CHARLESTON, SC 29407
(843) 727-4707
<http://www.fws.gov/charleston/>

Expect additional Species list documents from the following office(s):

Raleigh Ecological Services Field Office
POST OFFICE BOX 33726
RALEIGH, NC 27636
(919) 856-4520

Consultation Code: 04ES1000-2017-SLI-0009

Event Code: 04ES1000-2017-E-00009

Project Type: TRANSPORTATION

Project Name: I-73 North

Project Description: Interstate 73 from Interstate 73/74 near Hamlet, North Carolina to Interstate 95 near Dillon, South Carolina

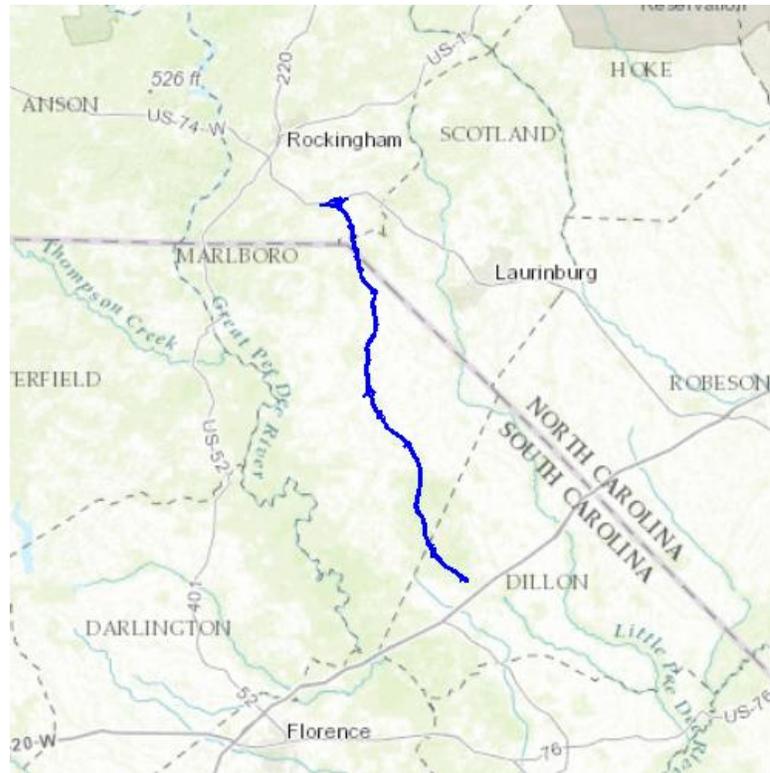
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: I-73 North

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Richmond, NC | Scotland, NC | Dillon, SC | Marlboro, SC



United States Department of Interior
Fish and Wildlife Service

Project name: I-73 North

Endangered Species Act Species List

There are a total of 3 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Red-Cockaded woodpecker (<i>Picoides borealis</i>) Population: Wherever found	Endangered		
Fishes			
Shortnose sturgeon (<i>Acipenser brevirostrum</i>) Population: Wherever found	Endangered		
Flowering Plants			
Canby's dropwort (<i>Oxypolis canbyi</i>) Population: Wherever found	Endangered		



United States Department of Interior
Fish and Wildlife Service

Project name: I-73 North

Critical habitats that lie within your project area

There are no critical habitats within your project area.



United States Department of Interior
Fish and Wildlife Service

Project name: I-73 North

Appendix A: FWS National Wildlife Refuges and Fish Hatcheries

There are no refuges or fish hatcheries within your project area.



United States Department of Interior
Fish and Wildlife Service

Project name: I-73 North

Appendix B: FWS Migratory Birds

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The MBTA has no otherwise lawful activities. For more information regarding these Acts see: <http://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php>
<http://www.fws.gov/birds/policies-and-regulations/laws-legislations/bald-and-golden-eagle-protection-act.php>

All project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. To meet these conservation obligations, proponents should identify potential or existing project-related impacts to migratory birds and their habitat and develop and implement conservation measures that avoid, minimize, or compensate for these impacts. The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

For information about Birds of Conservation Concern, go to:

<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>

For information about conservation measures that help avoid or minimize impacts to birds, please visit:

<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>

To search and view summaries of year-round bird occurrence data within your project area, go to the Avian Knowledge Network Histogram Tools at:

<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/akn-histogram-tools.php>



United States Department of Interior
Fish and Wildlife Service

Project name: I-73 North

Migratory birds that may be affected by your project:

There are 22 birds on your migratory bird list. The list may include birds occurring outside this FWS office jurisdiction.

Species Name	Bird of Conservation Concern (BCC)	Seasonal Occurrence in Project Area
American bittern (<i>Botaurus lentiginosus</i>)	Yes	Wintering
American Kestrel (<i>Falco sparverius ssp. paulus</i>)	Yes	Year-round
Bachman's sparrow (<i>Aimophila aestivalis</i>)	Yes	Year-round
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Yes	Year-round
Brown-headed Nuthatch (<i>Sitta pusilla</i>)	Yes	Year-round
Chuck-will's-widow (<i>Caprimulgus carolinensis</i>)	Yes	Breeding
Fox Sparrow (<i>Passerella iliaca</i>)	Yes	Wintering
Kentucky Warbler (<i>Oporornis formosus</i>)	Yes	Breeding
Least bittern (<i>Ixobrychus exilis hesperis</i>)	No	Breeding
Loggerhead Shrike (<i>Lanius ludovicianus</i>)	Yes	Year-round
Mississippi Kite (<i>Ictinia mississippiensis</i>)	Yes	Breeding
Peregrine Falcon (<i>Falco peregrinus</i>)	Yes	Wintering
Prairie Warbler (<i>Dendroica discolor</i>)	Yes	Breeding
Prothonotary Warbler (<i>Protonotaria citrea</i>)	Yes	Breeding
Red-headed Woodpecker (<i>Melanerpes</i>)	Yes	Year-round



United States Department of Interior
Fish and Wildlife Service

Project name: I-73 North

<i>erythrocephalus</i>)		
Rusty Blackbird (<i>Euphagus carolinus</i>)	Yes	Wintering
Sedge Wren (<i>Cistothorus platensis</i>)	Yes	Wintering, Migrating
Short-eared Owl (<i>Asio flammeus</i>)	Yes	Wintering
Swainson's Warbler (<i>Limnothlypis swainsonii</i>)	Yes	Breeding
Wood Thrush (<i>Hylocichla mustelina</i>)	Yes	Breeding
Worm eating Warbler (<i>Helmitheros vermivorum</i>)	Yes	Breeding
Yellow Rail (<i>Coturnicops noveboracensis</i>)	Yes	Wintering



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Raleigh Ecological Services Field Office
551 PYLON DRIVE, SUITE F
RALEIGH, NC 27606
PHONE: (919)856-4520 FAX: (919)856-4556

Consultation Code: 04EN2000-2017-SLI-0018

October 06, 2016

Event Code: 04EN2000-2017-E-00048

Project Name: I-73 North

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The species list generated pursuant to the information you provided identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Section 7 of the Act requires that all federal agencies (or their designated non-federal representative), in consultation with the Service, insure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally-listed endangered or threatened species. A biological assessment or evaluation may be prepared to fulfill that requirement and in determining whether additional consultation with the Service is necessary. In addition to the federally-protected species list, information on the species' life histories and habitats and information on completing a biological assessment or

evaluation and can be found on our web page at <http://www.fws.gov/raleigh>. Please check the web site often for updated information or changes

If your project contains suitable habitat for any of the federally-listed species known to be present within the county where your project occurs, the proposed action has the potential to adversely affect those species. As such, we recommend that surveys be conducted to determine the species' presence or absence within the project area. The use of North Carolina Natural Heritage program data should not be substituted for actual field surveys.

If you determine that the proposed action may affect (i.e., likely to adversely affect or not likely to adversely affect) a federally-protected species, you should notify this office with your determination, the results of your surveys, survey methodologies, and an analysis of the effects of the action on listed species, including consideration of direct, indirect, and cumulative effects, before conducting any activities that might affect the species. If you determine that the proposed action will have no effect (i.e., no beneficial or adverse, direct or indirect effect) on federally listed species, then you are not required to contact our office for concurrence (unless an Environmental Impact Statement is prepared). However, you should maintain a complete record of the assessment, including steps leading to your determination of effect, the qualified personnel conducting the assessment, habitat conditions, site photographs, and any other related articles.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

Not all Threatened and Endangered Species that occur in North Carolina are subject to section 7 consultation with the U.S Fish and Wildlife Service. Atlantic and shortnose sturgeon, sea turtles, when in the water, and certain marine mammals are under purview of the National Marine Fisheries Service. If your project occurs in marine, estuarine, or coastal river systems you should also contact the National Marine Fisheries Service, <http://www.nmfs.noaa.gov/>

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office. If you have any questions or comments, please contact John Ellis of this office at john_ellis@fws.gov.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: I-73 North

Official Species List

Provided by:

Raleigh Ecological Services Field Office
POST OFFICE BOX 33726
RALEIGH, NC 27636
(919) 856-4520

Expect additional Species list documents from the following office(s):

South Carolina Ecological Services
176 CROGHAN SPUR ROAD, SUITE 200
CHARLESTON, SC 29407
(843) 727-4707
<http://www.fws.gov/charleston/>

Consultation Code: 04EN2000-2017-SLI-0018

Event Code: 04EN2000-2017-E-00048

Project Type: TRANSPORTATION

Project Name: I-73 North

Project Description: Interstate 73 from Interstate 73/74 near Hamlet, North Carolina to Interstate 95 near Dillon, South Carolina

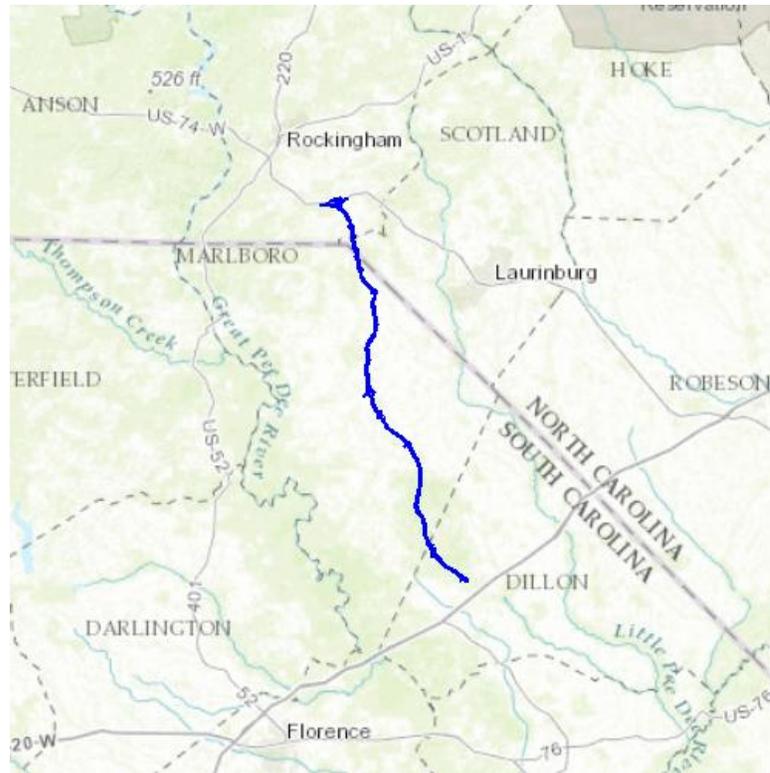
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: I-73 North

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Richmond, NC | Scotland, NC | Dillon, SC | Marlboro, SC



United States Department of Interior
Fish and Wildlife Service

Project name: I-73 North

Endangered Species Act Species List

There are a total of 9 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Red-Cockaded woodpecker (<i>Picoides borealis</i>) Population: Wherever found	Endangered		
Clams			
Carolina heelsplitter (<i>Lasmigona decorata</i>) Population: Wherever found	Endangered	Final designated	
Fishes			
Atlantic sturgeon (<i>Acipenser oxyrinchus oxyrinchus</i>) Population: Carolina DPS	Endangered		
Shortnose sturgeon (<i>Acipenser brevirostrum</i>) Population: Wherever found	Endangered		
Flowering Plants			
American chaffseed (<i>Schwalbea americana</i>) Population: Wherever found	Endangered		



United States Department of Interior
Fish and Wildlife Service

Project name: I-73 North

Canby's dropwort (<i>Oxypolis canbyi</i>) Population: Wherever found	Endangered		
Michaux's sumac (<i>Rhus michauxii</i>) Population: Wherever found	Endangered		
rough-leaved loosestrife (<i>Lysimachia asperulaefolia</i>) Population: Wherever found	Endangered		
Reptiles			
American alligator (<i>Alligator mississippiensis</i>) Population: Wherever found	Similarity of Appearance (Threatened)		



United States Department of Interior
Fish and Wildlife Service

Project name: I-73 North

Critical habitats that lie within your project area

There are no critical habitats within your project area.

I-73 North

IPaC Trust Resources Report

Generated October 06, 2016 01:32 PM MDT, IPaC v3.0.9

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



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U.S. Fish & Wildlife Service

IPaC Trust Resources Report



NAME

I-73 North

LOCATION

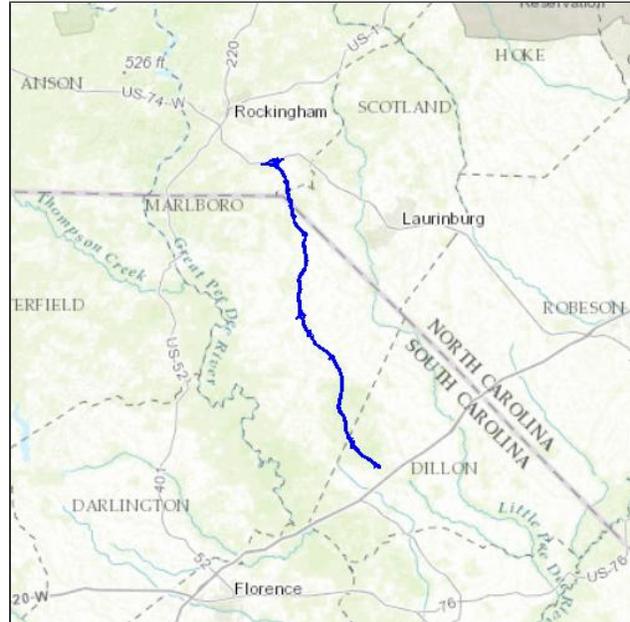
North Carolina and South Carolina

DESCRIPTION

Interstate 73 from Interstate 73/74 near Hamlet, North Carolina to Interstate 95 near Dillon, South Carolina

IPAC LINK

<https://ecos.fws.gov/ipac/project/B5MGC-MMZPB-BGNA5-VHBRQ-UPSTHQ>



U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

Raleigh Ecological Services Field Office

Post Office Box 33726
Raleigh, NC 27636-3726
(919) 856-4520

South Carolina Ecological Services

176 Croghan Spur Road, Suite 200
Charleston, SC 29407-7558
(843) 727-4707

Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the [Endangered Species Program](#) of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Documents section in IPaC or from the local field office directly.

The list of species below are those that may occur or could potentially be affected by activities in this location:

Birds

Red-cockaded Woodpecker *Picoides borealis* Endangered

MANAGED BY
Raleigh Ecological Services Field Office
South Carolina Ecological Services

CRITICAL HABITAT
No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B04F

Clams

Carolina Heelsplitter *Lasmigona decorata* Endangered

MANAGED BY
Raleigh Ecological Services Field Office

CRITICAL HABITAT
There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=F02L

Fishes

Atlantic Sturgeon *Acipenser oxyrinchus oxyrinchus*

Endangered

MANAGED BY

Raleigh Ecological Services Field Office

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E0A7

Shortnose Sturgeon *Acipenser brevirostrum*

Endangered

MANAGED BY

Raleigh Ecological Services Field Office

South Carolina Ecological Services

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E00B

Flowering Plants

American Chaffseed *Schwalbea americana* Endangered

MANAGED BY

Raleigh Ecological Services Field Office

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=Q2I4

Canby's Dropwort *Oxypolis canbyi* Endangered

MANAGED BY

Raleigh Ecological Services Field Office

South Carolina Ecological Services

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=Q2EL

Michaux's Sumac *Rhus michauxii* Endangered

MANAGED BY

Raleigh Ecological Services Field Office

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=Q2HH

Rough-leaved Loosestrife *Lysimachia asperulaefolia* Endangered

MANAGED BY

Raleigh Ecological Services Field Office

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=Q2DF

Reptiles

American Alligator *Alligator mississippiensis* Similarity of Appearance (Threatened)

MANAGED BY

Raleigh Ecological Services Field Office

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=C000

Critical Habitats

There are no critical habitats in this location

Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the [Bald and Golden Eagle Protection Act](#).

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.^[1] There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern
<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data
<http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The following species of migratory birds could potentially be affected by activities in this location:

American Kestrel <i>Falco sparverius paulus</i>	Bird of conservation concern
Season: Year-round	
American Bittern <i>Botaurus lentiginosus</i>	Bird of conservation concern
Season: Wintering	
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0F3	
Bachman's Sparrow <i>Aimophila aestivalis</i>	Bird of conservation concern
Season: Year-round	
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B07E	
Bald Eagle <i>Haliaeetus leucocephalus</i>	Bird of conservation concern
Season: Year-round	
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B008	
Brown-headed Nuthatch <i>Sitta pusilla</i>	Bird of conservation concern
Season: Year-round	

Chuck-will's-widow <i>Caprimulgus carolinensis</i> Season: Breeding	Bird of conservation concern
Fox Sparrow <i>Passerella iliaca</i> Season: Wintering	Bird of conservation concern
Kentucky Warbler <i>Oporornis formosus</i> Season: Breeding	Bird of conservation concern
Least Bittern <i>Ixobrychus exilis</i> Season: Breeding http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B092	
Loggerhead Shrike <i>Lanius ludovicianus</i> Season: Year-round http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FY	Bird of conservation concern
Mississippi Kite <i>Ictinia mississippiensis</i> Season: Breeding	Bird of conservation concern
Peregrine Falcon <i>Falco peregrinus</i> Season: Wintering http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU	Bird of conservation concern
Prairie Warbler <i>Dendroica discolor</i> Season: Breeding	Bird of conservation concern
Prothonotary Warbler <i>Protonotaria citrea</i> Season: Breeding	Bird of conservation concern
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> Season: Year-round	Bird of conservation concern
Rusty Blackbird <i>Euphagus carolinus</i> Season: Wintering	Bird of conservation concern
Sedge Wren <i>Cistothorus platensis</i> Seasons: Wintering, Migrating	Bird of conservation concern
Short-eared Owl <i>Asio flammeus</i> Season: Wintering http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD	Bird of conservation concern
Swainson's Warbler <i>Limnothlypis swainsonii</i> Season: Breeding	Bird of conservation concern
Wood Thrush <i>Hylocichla mustelina</i> Season: Breeding	Bird of conservation concern
Worm Eating Warbler <i>Helmitheros vermivorum</i> Season: Breeding	Bird of conservation concern
Yellow Rail <i>Coturnicops noveboracensis</i> Season: Wintering http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JG	Bird of conservation concern

Wildlife refuges and fish hatcheries

There are no refuges or fish hatcheries in this location

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

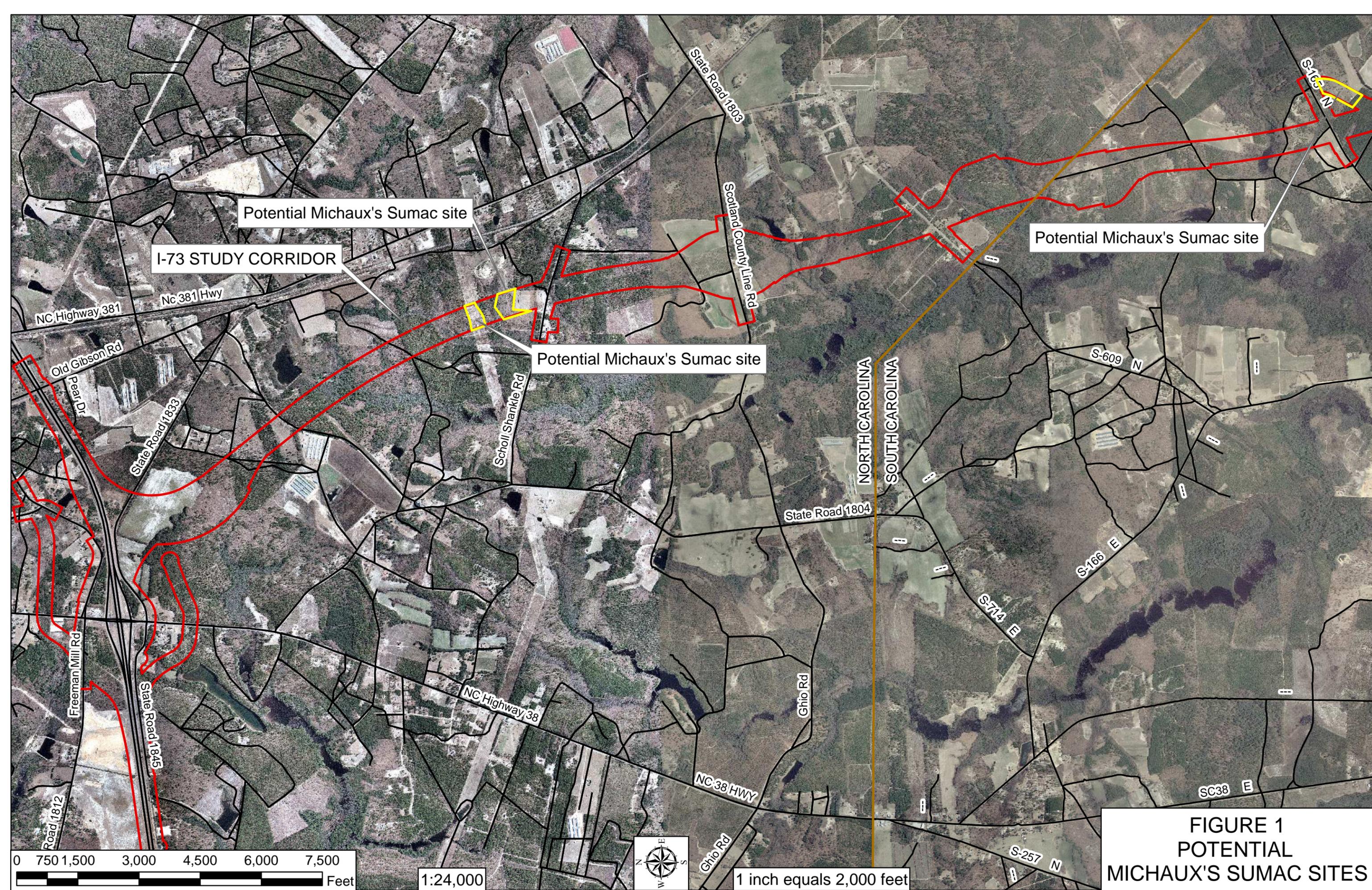
DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Wetland data is unavailable at this time.



Potential Michaux's Sumac site

I-73 STUDY CORRIDOR

Potential Michaux's Sumac site

Potential Michaux's Sumac site

**FIGURE 1
POTENTIAL
MICHAX'S SUMAC SITES**

0 750 1,500 3,000 4,500 6,000 7,500 Feet

1:24,000



1 inch equals 2,000 feet