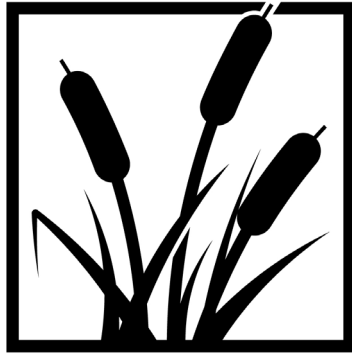




Biological Evaluation
Patel Add-On Tract
Loris, Horry County, South Carolina
Project No. 00769-23267

PREPARED FOR:

Wake Stone Corporation
Post Office Box 190
Knightsdale, North Carolina 27545

PREPARED BY:

The Brigman Company
Post office Box 1532
Conway, South Carolina 29526

July 16, 2024



THE BRIGMAN COMPANY

July 16, 2024

Wake Stone Corporation
Post Office Box 190
Knightsdale, North Carolina 27545

Attention: Mr. Cole Atkins

Reference: **Biological Evaluation**
Patel Add-On Tract
Loris, Horry County, South Carolina
Project No. 00769-23267

Dear Mr. Adkins:

The Brigman Company (TBC) is pleased to submit this report updating our Biological Evaluation for the Patel Add-On Tract (i.e. the Property) located on South Carolina Highway 9, near the City of Loris, Horry County, South Carolina. This work was performed in accordance with TBC's Professional Services Contract, authorized on July 12, 2024. This report and the on-site pedestrian survey have been conducted to assess the potential for the presence of federally protected species or habitat to support federally protected species prior to future development of the Property.

The Property consists of two tracts of land (Horry County TMS#061-00-02-048 and a portion of 109) that total approximately 91.4 acres. Exhibit 1 of this report presents the approximate location of the Property. The Property is identified on a portion of the U.S. Geological Survey (USGS) 7.5-minute Goretown, SC topographic quadrangle map dated 1962. Exhibit 2 of this report depicts the approximate location of the Property overlaid on the referenced topographic quadrangle.

Site and Habitat Descriptions

The Property is located in northeastern Horry County within the Coastal Plain Physiographic Province of South Carolina. The USGS topographic quadrangle (Exhibit 2) depicts the Property as mostly wooded in 1962. The surrounding properties consist of open pit mines, undeveloped forested areas and a few residential homes. Exhibit 3 of this report depicts the Property overlaid on an aerial photograph. The Property is dominated by mixed pine/hardwood overstory both in the uplands and the wetlands. These species included loblolly pine (*Pinus taeda*), swamp chestnut oak (*Quercus michauxii*), sweet gum (*Liquidambar styraciflua*) and water oak (*Quercus nigra*) in the overstory while the understory is dominated by dwarf palmetto (*Sabal minor*) and switch cane (*Arundinaria gigantea*) in the wetlands and bracken fern (*Pteridium aquilinum*) in the uplands. The wetlands on the Property are associated with Sheepsbridge Branch, a tributary of Buck Creek. Both Buck Creek and Sheepsbridge Branch have been channelized.



Protected Species

The U.S. Fish & Wildlife Service (USF&WS) *South Carolina List of At-risk, Candidate, Endangered, and Threatened Species – Horry County*, the USF&WS Information for Planning and Conservation (IPaC) website, and the South Carolina Department of Natural Resources (SCDNR) *Rare, Threatened, and Endangered Species and Communities Known to Occur in Horry County, SC* were consulted regarding current federally protected species within Horry County. The information was reviewed prior to conducting the site visit, to determine if known locations of protected species were located on or near the Property. The USF&WS database has twenty-one (23) federally protected species listed for Horry County, South Carolina and one candidate species. However, sixteen (15) of these species are dependent on either beach/sand dunes ecosystems, a marine ecosystem, or large rivers, which the Property does not contain or border. The remaining eight (8) protected species include:

Common Name	Scientific Name	Survey Window	Status
Bald Eagle	<i>Haliaeetus leucocephalus</i>	October 1 – May 15 (nesting season)	Bald & Golden Eagle Protection Act
Red-Cockaded Woodpecker	<i>Picoides borealis</i>	March 1 – July 31 (nesting season)	Endangered
American Wood Stork	<i>Mycteria americana</i>	February 15 – September 1 (nesting season)	Threatened
American Chaffseed	<i>Schwalbea americana</i>	May - August (1-2 months after a fire)	Endangered
Canby's Dropwort	<i>Tiedemannia canbyi</i>	Mid-August-September	Endangered
Pondberry	<i>Lindera melissifolia</i>	February-March	Endangered
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	Year round	Threatened
Monarch Butterfly	<i>Danaus plexippus</i>	August-December	Candidate

The South Carolina State listed species for Horry County that are not included in the federal threatened and endangered species list and **not** dependent on maritime or large riverine systems are listed below:

Common Name	Scientific Name	Survey Window	Status
Spotted Turtle	<i>Clemmys guttata</i>	February-April	Threatened
Rafinesque's Big-eared Bat	<i>Corynorhinus rafinesquii</i>	Year round	Endangered
Swallow-tailed Kite	<i>Elanoides forficatus</i>	March-September	Endangered
Common Ground Dove	<i>Columbina passerine</i>	Year round	Threatened
Carolina Pigmy Sunfish	<i>Elassoma boehlkei</i>	Year round	Threatened
Southern Hog-nosed Snake	<i>Heterodon simus</i>	May-June/October-November	Threatened



A pedestrian field review was performed for protected species and suitable habitats to support protected species on July 9, 2024 by Mr. Jeffery Vereen of TBC. The results of the pedestrian field review are included in the following sections of this report, as well as a discussion of the above species, where applicable.

Plants:

No Effect

American chaffseed typically grows in sandy, acidic, seasonally moist to dry soils in open moist pine flatwoods, pine/wiregrass savannas, and transitional areas between peaty wetlands and xeric sandy soils. The wetlands on the Property have a very dense overstory, and combined with years of fire suppression renders the site unsuitable for American chaffseed, therefore, the proposed project will have no effect on this species.

Canby's dropwort typically grows in seepage bogs, swampy depressions, and margins of flooded wetlands/ponds. This species flowers in August and September, sometimes lasting until October. As with American chaffseed, Canby's dropwort also requires more sunlight that is available on the Property, as such, no specimens were observed and the proposed project will have no effect on Canby's dropwort.

Pondberry is associated with wetland habitats such as bottomland hardwoods and the margins of sinks, ponds, and other depressions in the coastal plain. Due to the dense overstory, the wetlands do not contain suitable habitat and as such, the proposed project will have no effect on the species.

Vertebrates:

Not Likely to Adversely Affect

Birds:

Even though the bald eagle was taken off of the threatened species list, it is still offered protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), enacted in 1940. The bald eagle requires mature trees for nesting that are in close proximity to large bodies of water to feed. Site observations revealed that suitable nesting habitat does not exist on the Property. No nests were observed on the Property, nor were any bald eagles observed during the site reconnaissance, thus the proposed project will have no effect on the bald eagle.

The red-cockaded woodpecker (RCW) requires mature longleaf pines or loblolly pine with an open understory that does not exceed 15' in height, and evenly spaced trees with an open, park-like stand. Site observations revealed that there is no suitable nesting or foraging habitat on the Property, as such, the proposed project will have no effect on this species.

The wood stork typically requires coastal areas, tidal waters, marshes, swamps, streams and mangroves for nesting and feeding. The wetlands on the Property do not contain suitable nesting or foraging habitat for the wood stork, therefore, the proposed project will have no effect on this species.

The Swallow-tailed kite is distinctive with its long, pointed wings and long forked tail and its black and white coloration. They spend much of their day in flight and feeds year round on insects, and small vertebrates that they glean from vegetation while in flight. As with the wood stork there are no suitable foraging or nesting wetlands on the Property, therefore, the proposed project will have no effect on the Swallow-tailed kite.



The Common Ground-dove is one of the smallest doves, measuring roughly 17 cm (0.39 in.) and weighing 30 g (1.06 oz.) (Sibley 2000). Typically, this is a stocky dove with a scaled effect on its head and breast and a short tail. Bright chestnut primaries and wing linings are visible in flight (NGS 1999). Linnaeus first described the Common Ground-dove in 1758 (NatureServe 2005). Common Ground-Doves are sandy brown overall, with large, dark spots on the wing coverts. In flight the wings show rich rufous patches. Males have a pinkish wash on the head, neck, and chest, and bluish crowns; females are duller. Both sexes have fine, dark scaling on the neck and chest, and pinkish-red bills with a dark tip. Their habitat includes open or shrubby areas with tall grasses or groves of trees, including riparian corridors and open savannas. They also live in towns and suburbs, where they frequent yards and hedges. The Property does not contain suitable habitat for the Common Ground-dove and the proposed project will have no effect on this species.

Reptiles and Amphibians:

The only federally protected species of reptiles or amphibians listed for Horry County are associated with the marine ecosystem, and the Property does not adjoin the Atlantic Ocean.

South Carolina has listed the Spotted Turtle as threatened in the state, including Horry County. As stated above, the wetlands on the Property have been channelized and are not suitable habitat therefore, the proposed project will have no effect on the Spotted Turtle.

The Southern Hog-nosed snake is listed as threatened in South Carolina and is the smallest of the hognose snakes. It is associated with xeric longleaf pine savannah, flatwoods, and sandhills from southeastern North Carolina, South Carolina, Georgia, Florida, and west to Alabama and Mississippi. They occupy upland habitat with well-drained, sandy soils, characterized by pine-dominated or pine-oak woodland where the canopy is open with a grassy understory. The southern hognose snake is diurnal, with peak activity occurring in the late morning to early afternoon (Beane, et al., 2014, p. 173). Frogs and toads have been reported to make up the largest portion of the southern hognose snake diet, but they are also known to eat small lizards (Ernst & Ernst, 2003, p. 153; Beane, et al., 1998, p. 45; Ashton & Ashton, 1981, p. 85). Specific ecological needs that are essential to the survival and reproductive success of individuals include well-drained soils, suitable vegetation structure and composition, and presence of prey. Due to the lack of well drained, sandy soils on the Property, suitable habitat for this species is not present. The proposed project will have no effect on the Southern Hog-nosed snake, in addition, the SCDNR Heritage Trust database did not find any documented habitat locations on or within one mile of the property.

Fish and Marine Species:

There is no suitable habitat on or adjacent to the Property to support federally protected species of fish or marine species listed for Horry County.

The Carolina Pigmy Sunfish has been listed as Threatened in South Carolina as only a few populations of Carolina Pigmy Sunfish have been identified within the state. One population exists in Big Pine Tree Creek in the Santee River Basin near Camden, South Carolina. A few populations are known from the Waccamaw River with one or two populations in the upper Waccamaw River in Horry County, South Carolina. Another population is known to



occur in the ditches of abandoned rice fields near Georgetown, South Carolina. The only other known occurrences for this species are in North Carolina where two population centers have been identified in the upper Waccamaw River drainage. The Carolina Pygmy Sunfish inhabits slow-moving acidic waters of ponds, ditches, and streams in the coastal plain. This species is generally associated with abundant aquatic vegetation and shallow water (Rohde et al. 1994). Suitable habitat does not exist on the Property and therefore, the proposed project will have no effect on the Carolina Pygmy Sunfish. In addition, the SCDNR Heritage Trust database did not find any documented habitat locations on or within one mile of the Property.

Mammals:

The northern long-eared bat (NLEB) is a medium-sized bat approximately three to 3.7 inches, with a wingspan of nine to 10 inches. Fur color ranges from medium to dark brown on the back and tawny to pale brown on the underside. It is distinguished by its long ears in relation to other bats in the genus *Myotis*, which means mouse-eared. The northern long-eared bat uses caves and abandoned mines as winter hibernacula. It is found from Maine to North Carolina on the Atlantic Coast, westward to eastern Oklahoma, and north through the Dakotas. In summer, this bat will roost in small colonies or alone underneath bark or in cavities or crevices of both live trees and dead trees. The USFWS considers any live or dead tree with loose or exfoliating bark with a diameter-at-breast-height (DBH) greater than three inches to be potential summer roosting habitat. The trees on the Property range from approximately 3 inches to 10 inches DBH and could potentially provide summer roosting habitat for this species.

In recent coordination with the USF&WS (IPaC) and SCDNR Natural Heritage Trust Program in regard to northern long-eared bat occurrences on or in the vicinity of the Property, the USF&WS and SCDNR stated that there are no known NLEB maternity roosts or hibernacula located near the project area. Accordingly, the proposed project may affect, but is not likely to adversely affect this species. The Northern Long-eared bat determination key was used in the IPaCs website and a letter from USF&WS was generated that concurs with this finding. It is attached to this report in the Appendices and no further action is required from USF&WS.

Rafinesque's Big-eared Bat (*Corynorhinus rafinesquii*) is a state endangered listed species that is noted for its large ears which, when laid back, are about half the length of the animal's body. Rafinesque's big-eared bats inhabit the southeastern United States, west to Louisiana and north to Kentucky and North Carolina. In South Carolina they are permanent residents of the coastal plain and hibernate rather than move south during winter months. Big-eared bats characteristically roost in dilapidated buildings or tree cavities near water. The breeding season in this species extends from late fall to early winter. During this time, both males and females occupy the same roost. For the remainder of the winter and on to early spring, the bats hibernate. In some portions of their range, hibernating bats are found in caves, wells, and similar habitats.

Suitable habitat for Rafinesque's big-eared bat is defined as swamp forests, hardwood or mixed mature bottomlands, maritime forests and black gum (*Nyssa sylvatica*) and water tupelo (*Nyssa aquatica*) stands (Cochran 1999, Hofmann et al. 1999, Lance et al. 2001, Gooding and Langford 2004, Trousdale and Beckett 2005). Again, because the wetlands on the Property are not bottomland swamp forest, the proposed project will have no effect on this species.



The remaining federally protected species of mammals listed for Horry County are marine species and the Property does not adjoin the Atlantic Ocean.

Invertebrate:

No Effect

Insects:

The Monarch butterfly (*Danaus plexippus*) originates in North America where an eastern and western population undertake extensive migrations. For overwintering monarchs, habitat with a specific microclimate is needed for protection from the elements, as well as moderate temperatures to avoid freezing. These conditions vary between populations. For the eastern North American population, most monarchs overwinter in Oyamel fir (*Abies religiosa*) tree roosts located in mountainous regions in central Mexico at an elevation of 2,400 to 3,600 meters. Monarchs living west of the Rocky Mountain range in North America primarily overwinter in California at sites along the Pacific Coast, roosting in eucalyptus (*Eucalyptus spp.*), Monterey pines (*Pinus radiata*) and Monterey cypress (*Hesperocyparis macrocarpa*) trees. Whether it's a field, roadside area, open area, wet area or urban garden, milkweed and flowering plants are needed for monarch habitat. Adult monarchs feed on the nectar of many flowers during breeding and migration, but they can only lay eggs on milkweed plants. During the site reconnaissance, no monarch butterflies or milkweed were observed on or directly adjacent to the Property, therefore should have no effect on this species.

Freshwater Mussels:

There are no federally protected species of freshwater mussel listed for Horry County.

Methodology

TBC reviewed the SCDNR and the USF&WS databases for records of protected species known to occur within Horry County. The purpose of the search was to identify current and historic documented occurrences of protected species located within this county. Additionally, TBC personnel reviewed available supporting information including the USGS topographic quadrangle and applicable soil survey data. The purpose of reviewing this supporting information was to identify drainage features and soil types in the site area that may be suitable habitat for protected species. During field reconnaissance, TBC personnel integrated the information obtained from this supporting documentation with field evaluation for the presence of protected species or potential protected species habitat.

Summary and Conclusions

Based on the literature review, habitat assessment, and pedestrian field review of the Property, it is our opinion that activities associated with proposed development on the Property will have no effect on federal or state listed protected plant, bird, reptile, fish, Rafinesque's Big-eared Bat, or candidate species for Horry County, but may affect but is not likely to adversely affect the Northern long-eared bat.

The determination key for the listed species for South Carolina was utilized in the IPaCs website and a letter from USF&WS has been generated that concurs with this finding. The letter is attached to this report in the Appendices and other than a follow-up for the NLEB later this summer, no further action is required from USF&WS.



Biological Evaluation

Patel Add-on Tract

Loris, Horry County, South Carolina

Project No. 00769-23267

Closure

TBC appreciates the opportunity to be of service to you by performing this Biological Evaluation for the Property. Please contact us at (843) 248-9388 with questions regarding this report, or if you require additional information.

Sincerely,

Jeffery Vereen
Project Manager

jvereen@TheBrigmanCompany.com

Appendices

Exhibit 1: Vicinity Map

Exhibit 2: USGS Topographic Map Exhibit

Exhibit 3: Aerial Exhibit

Exhibit 4: USDA/SCS Soil Survey Exhibit

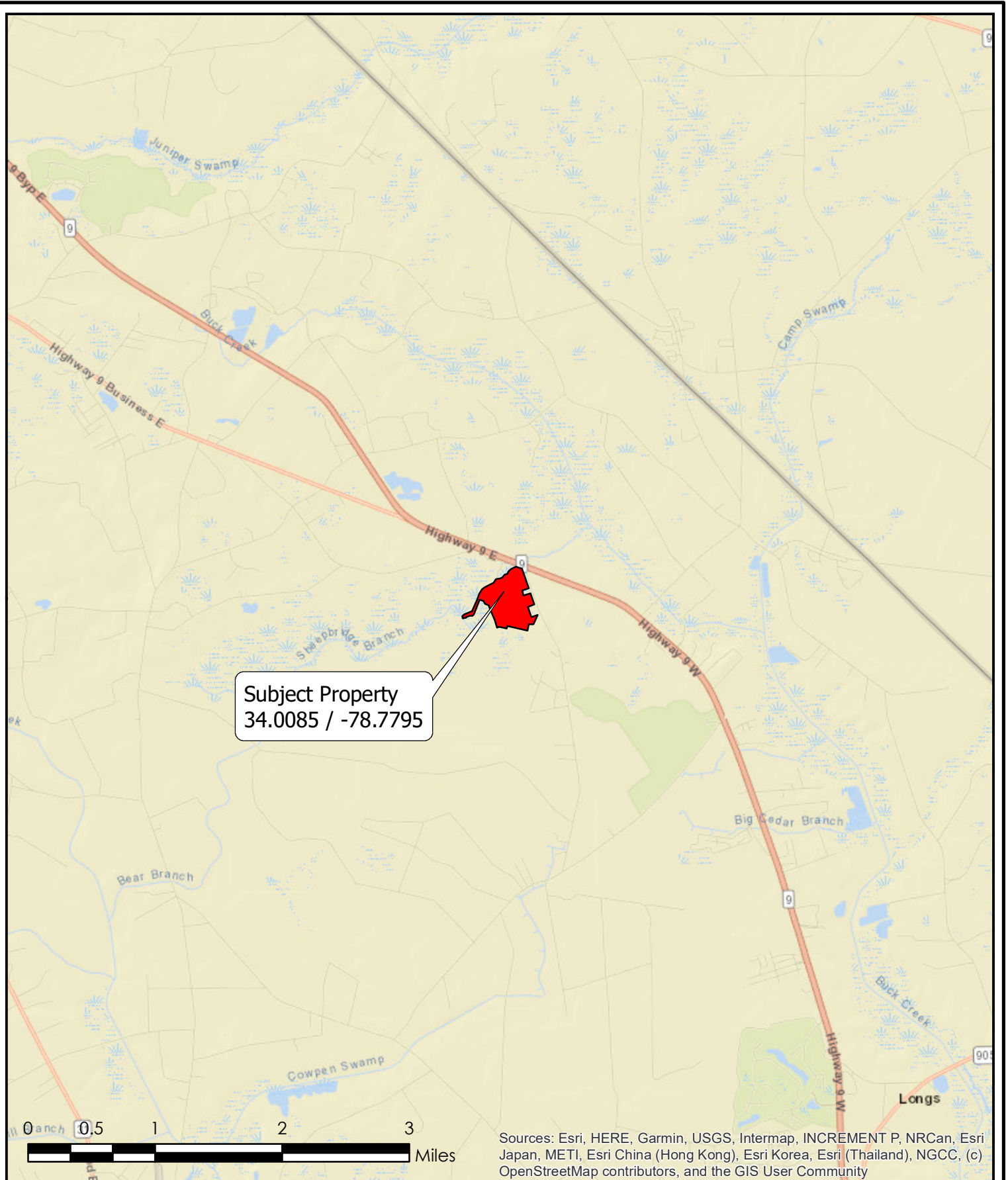
Site Photographs

USF&WS IPaC Report

Northern Long-eared Bat Consistency Letter from USF&WS

South Carolina Listed Species Consistency Letter from USF&WS

SCDNR Heritage Trust Request for Threatened and Endangered Species Consultation Report



TBC
THE BRIGMAN CO.

607 Main Street - Conway, SC 29526 - Phone (843) 248-9388 - www.TheBrigmanCompany.com

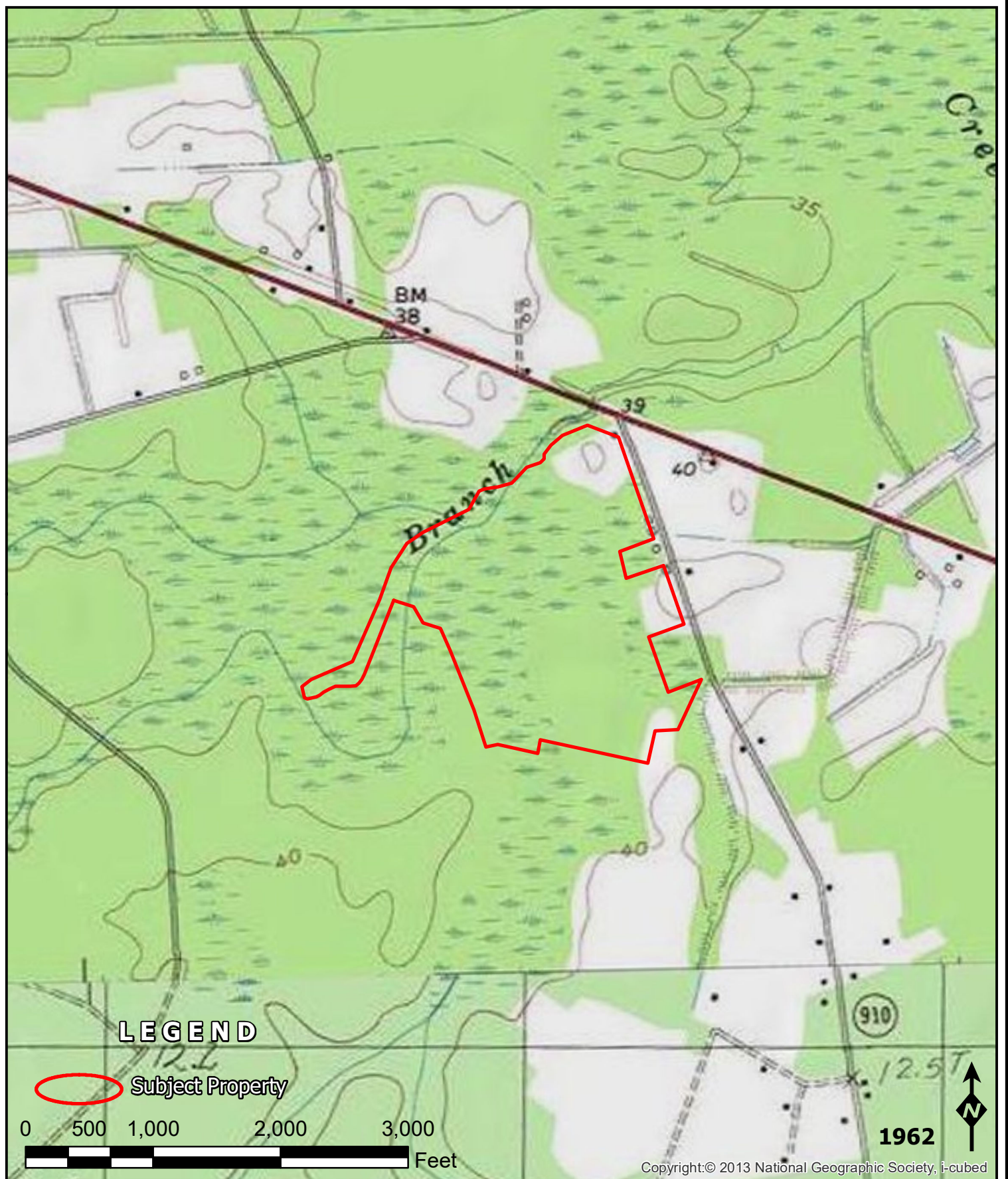
Site Vicinity Map

Patel Tract Timber Harvest Area
TMS# 061-00-02-048 and a portion of 109
Horry County, SC
July 2024



1" = 1 miles

jobs/2023/00769-23267



TBC
THE BRIGMAN CO.

USGS 7.5-Min. Goretown, SC Topographic Map

Patel Tract Timber Harvest Area

TMS# 061-00-02-048 and a portion of 109

Horry County, SC

July 2024

1" = 1,000'



TBC
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607 Main Street - Conway, SC 29526 - Phone (843) 248-9388 - www.TheBrigmanCompany.com

Aerial Photograph Exhibit
Patel Tract Timber Harvest Area
TMS# 061-00-02-048 and a portion of 109
Horry County, SC
July 2024



1" = 500'

jobs/2023/00769-23267



TBC
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USDA / SCS Soils Map
Patel Tract Timber Harvest Area
TMS# 061-00-02-048 and a portion of 109
Horry County, SC
July 2024



1" = 500'



1 View of channelized Sheepbridge Branch.



2 View of site uplands.



3 View of site wetlands.



Site Photographs
Patel Add-on Tract
Horry County, South Carolina

Project No.: 00769-23267

Taken by: CO

Date Taken: 07/09/24



United States Department of the Interior

FISH AND WILDLIFE SERVICE

South Carolina Ecological Services
176 Croghan Spur Road, Suite 200
Charleston, SC 29407-7558
Phone: (843) 727-4707 Fax: (843) 727-4218



In Reply Refer To:

07/12/2024 13:11:01 UTC

Project Code: 2024-0115279

Project Name: Patel Tract Timber Harvest Area

Subject: List of threatened and endangered species that may occur in your proposed project location 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 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 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:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. 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)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

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 Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

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

PROJECT SUMMARY

Project Code: 2024-0115279

Project Name: Patel Tract Timber Harvest Area

Project Type: Timber Harvest

Project Description: The site is proposed to conduct a timber harvest.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@34.0083268,-78.77973355628905,14z>



Counties: Horry County, South Carolina

ENDANGERED SPECIES ACT SPECIES

There is a total of 13 threatened, endangered, or candidate species on this 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. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red-cockaded Woodpecker <i>Picoides borealis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered
Rufa Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Wood Stork <i>Mycteria americana</i> Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477	Threatened

REPTILES

NAME	STATUS
Green Sea Turtle <i>Chelonia mydas</i> Population: North Atlantic DPS There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened
Kemp's Ridley Sea Turtle <i>Lepidochelys kempii</i> There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/5523	Endangered
Leatherback Sea Turtle <i>Dermochelys coriacea</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1493	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
American Chaffseed <i>Schwalbea americana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1286	Endangered
Canby's Dropwort <i>Oxypolis canbyi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7738	Endangered
Pondberry <i>Lindera melissifolia</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1279	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

THERE ARE NO BALD AND GOLDEN EAGLES WITHIN THE VICINITY OF YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

THERE ARE NO FWS MIGRATORY BIRDS OF CONCERN WITHIN THE VICINITY OF YOUR PROJECT AREA.

WETLANDS

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](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPAC USER CONTACT INFORMATION

Agency: The Brigman Company
Name: Jeffery Vereen
Address: 607 Main Street
Address Line 2: 607 Main Street
City: Conway
State: SC
Zip: 29526
Email: jvereen@thebrigmancompany.com
Phone: 8432489388



United States Department of the Interior

FISH AND WILDLIFE SERVICE

South Carolina Ecological Services
176 Croghan Spur Road, Suite 200
Charleston, SC 29407-7558
Phone: (843) 727-4707 Fax: (843) 727-4218



In Reply Refer To:

07/12/2024 13:17:16 UTC

Project code: 2024-0115279

Project Name: Patel Tract Timber Harvest Area

Federal Nexus: no

Federal Action Agency (if applicable):

Subject: Technical assistance for 'Patel Tract Timber Harvest Area'

Dear Jeffery Vereen:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on July 12, 2024, for 'Patel Tract Timber Harvest Area' (here forward, Project). This project has been assigned Project Code 2024-0115279 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project is not reasonably certain to cause incidental take of the northern long-eared bat. Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Chaffseed *Schwalbea americana* Endangered
- Canby's Dropwort *Oxypolis canbyi* Endangered
- Green Sea Turtle *Chelonia mydas* Threatened
- Kemp's Ridley Sea Turtle *Lepidochelys kempii* Endangered
- Leatherback Sea Turtle *Dermochelys coriacea* Endangered
- Monarch Butterfly *Danaus plexippus* Candidate
- Piping Plover *Charadrius melodus* Threatened
- Pondberry *Lindera melissifolia* Endangered
- Red-cockaded Woodpecker *Picoides borealis* Endangered
- Rufa Red Knot *Calidris canutus rufa* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Wood Stork *Mycteria americana* Threatened

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species and/or critical habitat listed above. Note that if a new species is listed that may be affected by the identified action before it is complete, additional review is recommended to ensure compliance with the Endangered Species Act.

Next Steps

Coordination with the Service is complete. This letter serves as technical assistance. All conservation measures should be implemented as proposed. Thank you for considering federally listed species during your project planning.

We are uncertain where the northern long-eared bat occurs on the landscape outside of known locations. Because of the steep declines in the species and vast amount of available and suitable forest habitat, the presence of suitable forest habitat alone is a far less reliable predictor of their presence. Based on the best available information, most suitable habitat is now expected to be unoccupied. During the interim period, while we are working on potential methods to address this uncertainty, we conclude take is not reasonably certain to occur in areas of suitable habitat where presence has not been documented.

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical

habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place before project implements any changes which are final or commits additional resources.

If you have any questions regarding this letter or need further assistance, please contact the South Carolina Ecological Services and reference Project Code 2024-0115279 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

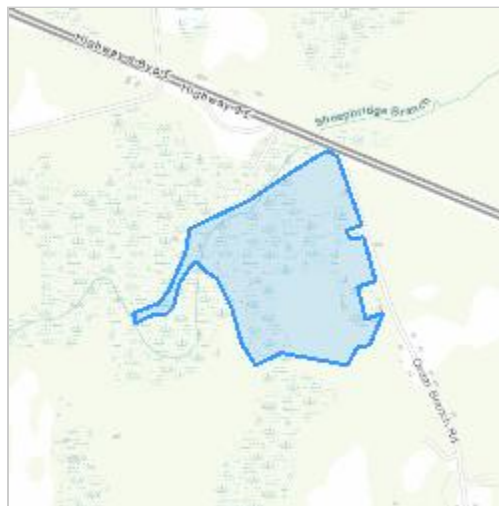
Patel Tract Timber Harvest Area

2. Description

The following description was provided for the project 'Patel Tract Timber Harvest Area':

The site is proposed to conduct a timber harvest.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@34.0083268,-78.77973355628905,14z>



DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for the Endangered northern long-eared bat (*Myotis septentrionalis*).

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Your project overlaps with an area where northern long-eared bats may be present year-round. Time-of-year restrictions may not be appropriate for your project due to bats being active all year.

Do you understand that your project may impact bats at any time during the year and time-of-year restrictions may not apply to your project?

Yes

3. The action area does not overlap with an area for which U.S. Fish and Wildlife Service currently has data to support the presumption that the northern long-eared bat is present. Are you aware of other data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed NLEB acoustic detections. Data on captures, roost tree use, and acoustic detections should post-date the year when white-nose syndrome was detected in the relevant state. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

4. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

No

PROJECT QUESTIONNAIRE

IPAC USER CONTACT INFORMATION

Agency: The Brigman Company
Name: Jeffery Vereen
Address: 607 Main Street
Address Line 2: 607 Main Street
City: Conway
State: SC
Zip: 29526
Email: jvereen@thebrigmancompany.com
Phone: 8432489388



United States Department of the Interior



FISH AND WILDLIFE SERVICE
South Carolina Ecological Services
176 Croghan Spur Road, Suite 200
Charleston, SC 29407-7558
Phone: (843) 727-4707 Fax: (843) 727-4218

In Reply Refer To:

07/12/2024 13:54:32 UTC

Project code: 2024-0115279

Project Name: Patel Tract Timber Harvest Area

Subject: Consistency letter for 'Patel Tract Timber Harvest Area' for specified federally threatened and endangered species and designated critical habitat that may occur in your proposed project area consistent with the South Carolina Ecological Services Field Office (ESFO) Determination Key (DKey) for project review and guidance for federally listed species.

Jeffery Vereen:

The U.S. Fish and Wildlife Service (Service) received on **July 12, 2024** your effect determination(s) for the 'Patel Tract Timber Harvest Area' (the Action) using the South Carolina ESFO DKey for project review and guidance for federally-listed species within the Information for Planning and Consultation (IPaC) application. The Service developed this application in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's South Carolina ESFO DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
American Chaffseed (<i>Schwalbea americana</i>)	Endangered	No effect
Canby's Dropwort (<i>Oxypolis canbyi</i>)	Endangered	No effect
Green Sea Turtle (<i>Chelonia mydas</i>)	Threatened	No effect
Kemp's Ridley Sea Turtle (<i>Lepidochelys kempii</i>)	Endangered	No effect
Leatherback Sea Turtle (<i>Dermochelys coriacea</i>)	Endangered	No effect
Piping Plover (<i>Charadrius melodus</i>)	Threatened	NLAA
Pondberry (<i>Lindera melissifolia</i>)	Endangered	No effect
Red-cockaded Woodpecker (<i>Picoides borealis</i>)	Endangered	No effect
Rufa Red Knot (<i>Calidris canutus rufa</i>)	Threatened	NLAA
Wood Stork (<i>Mycteria americana</i>)	Threatened	No effect

Coordination with the Service is complete Thank you for considering federally listed species during your project planning.

The following species and/or critical habitats may also occur in your project area and **are not** covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please note the Service shares jurisdiction with the Fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries) over sea turtles. The Service exerts jurisdiction when sea turtles are nesting on coastal beaches while NOAA Fisheries has jurisdiction when sea turtles inhabit coastal and offshore waters.

In-water activities may require consultation with NOAA Fisheries. Please visit the NOAA Fisheries website at <https://www.fisheries.noaa.gov/topic/endangered-species-conservation#conservation-&-management> to review their consultation requirements. Also, NOAA Fisheries should be contacted if you think your project will affect Atlantic and/or shortnose sturgeon.

Please note that due to obligations under the ESA, potential impacts of this project 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. If any of the above conditions occurs, additional consultation with the South Carolina ESFO should take place before project changes are final or resources committed.

Bald and Golden Eagle Protection Act (BGEPA): Bald and golden eagles are not included in this section 7(a)(2) consultation and this information does not constitute a determination of effects by the Service. The Service developed the [National Bald Eagle Management Guidelines](#) to advise landowners, land managers, and others who share public and private lands with bald eagles when and under what circumstances the protective provisions of the BGEPA may apply to their activities. The guidelines should be consulted prior to conducting new or intermittent activity near an eagle nest.

If the Federal Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) may be required. Please contact Ulgonda Kirkpatrick (phone: 321/972-9089, e-mail: ulgonda_kirkpatrick@fws.gov) with any questions regarding potential impacts to bald or golden eagles.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Patel Tract Timber Harvest Area

2. Description

The following description was provided for the project 'Patel Tract Timber Harvest Area':

The site is proposed to conduct a timber harvest.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@34.0083268,-78.77973355628905,14z>



QUALIFICATION INTERVIEW

1. Does the proposed project involve research or other actions that include the collection, capture, handling, or harassment of any individual federally listed threatened, endangered or proposed species?
No
2. Is the action authorized, funded, or being carried out by a Federal agency?
No
3. Is the project an existing structure that requires maintenance, repair, or replacement?
No
4. Does the project intersect the piping plover AOI?
Automatically answered
Yes
5. Will the proposed action impact docks, piers, and/or bulkheads?
No
6. Will the project affect shorebird resting/foraging behavior, foraging habitat (i.e.,), AND/OR roosting habitat?
No
7. Does the project intersect the red knot AOI?
Automatically answered
Yes
8. Will the proposed action impact docks, piers, and/or bulkheads?
No
9. Does the project intersect the red-cockaded woodpecker AOI?
Automatically answered
Yes
10. Is the action area located within suitable Red-cockaded woodpecker [foraging habitat](#) (pine or pine/hardwood stands in which 50% or more of the dominant trees are pines and the dominant pine trees are 30 years of age or older or >10-inches diameter breast height (dbh) and the midstory height does not exceed 12 feet)?
No
11. Does the project intersect the wood stork AOI?
Automatically answered
Yes
12. [Semantic] Does the proposed action action intersect the 2,500-foot buffer zone of a known colony?
Automatically answered
No

13. Is there suitable wood stork foraging habitat (SFH) within the project area?

Note: SFH contains patches of relatively open (< 25%) aquatic vegetation, calm water, and a permanent or seasonal water depth between 2 and 15 inches. Examples of SFH include, but are not limited to, freshwater marshes, seasonally flooded roadside or agricultural ditches, narrow tidal creeks or shallow tidal pools, managed impoundments, and depressions in cypress heads and swamp sloughs.

No

14. Is the action area on a sandy beach above the mean high-water line?

No

15. Does the project intersect the leatherback sea turtle AOI?

Automatically answered

Yes

16. Does the project intersect the Kemp's Ridley sea turtle AOI?

Automatically answered

Yes

17. Does the project intersect the green sea turtle AOI?

Automatically answered

Yes

18. Does the project intersect the pondberry AOI?

Automatically answered

Yes

19. Is there suitable pondberry habitat (e.g., pond margins, swampy depressions, sandy sinks, and seasonally flooded wetlands) for pondberry located within the project area?

No

20. Does the project intersect the American chaffseed AOI?

Automatically answered

Yes

21. Is there suitable habitat for American chaffseed located within the project area?

Note: American Chaffseed occurs in sandy (sandy peat, sandy loam), acidic, seasonally moist to dry soils. It is generally found in early successional habitats described as open, moist pine flatwoods, fire-maintained savannas, ecotonal areas between peaty wetlands and xeric (dry) sandy soils, bog borders, and other open grass-sedge systems. American Chaffseed is dependent on factors such as fire and mowing to maintain the open to partly open conditions that it requires. They can be found in habitat that is managed for the red-cockaded woodpecker. The species appears to be shade intolerant. American Chaffseed occurs in species-rich plant communities where grasses, sedges, and savanna dicots are numerous. For more information see: American Chaffseed (Schwalbea americana) Recovery Plan. ECOS: https://ecos.fws.gov/docs/recovery_plan/950929c.pdf

No

22. Does the project intersect the Canby's dropwort AOI?

Automatically answered

Yes

23. Is there suitable habitat for Canby's dropwort located within the project area?

Note: Canby's Dropwort can be found in a variety of coastal plain habitats, including natural ponds dominated by pond cypress, grass-sedge-dominated Carolina bays, wet pine savannas, shallow pineland ponds and cypress-pine swamps or sloughs. The largest and most vigorous populations have been found in open bays or ponds that are wet throughout most of the year, but which have little or no canopy cover. Soils are sandy loams or acidic peat mucks underlain by clay layers which, along with the slight gradient of the areas, result in the retention of water.

No

24. This determination key does not cover the Northern long-eared bat. Have you or will you complete the Determination Key for the Northern long-eared bat?

Yes

IPAC USER CONTACT INFORMATION

Agency: The Brigman Company
Name: Jeffery Vereen
Address: 607 Main Street
Address Line 2: 607 Main Street
City: Conway
State: SC
Zip: 29526
Email: jvereen@thebrigmancompany.com
Phone: 8432489388



State of South Carolina
Department of Natural Resources

P.O. Box 167
Columbia, SC 29202
803-734-3886

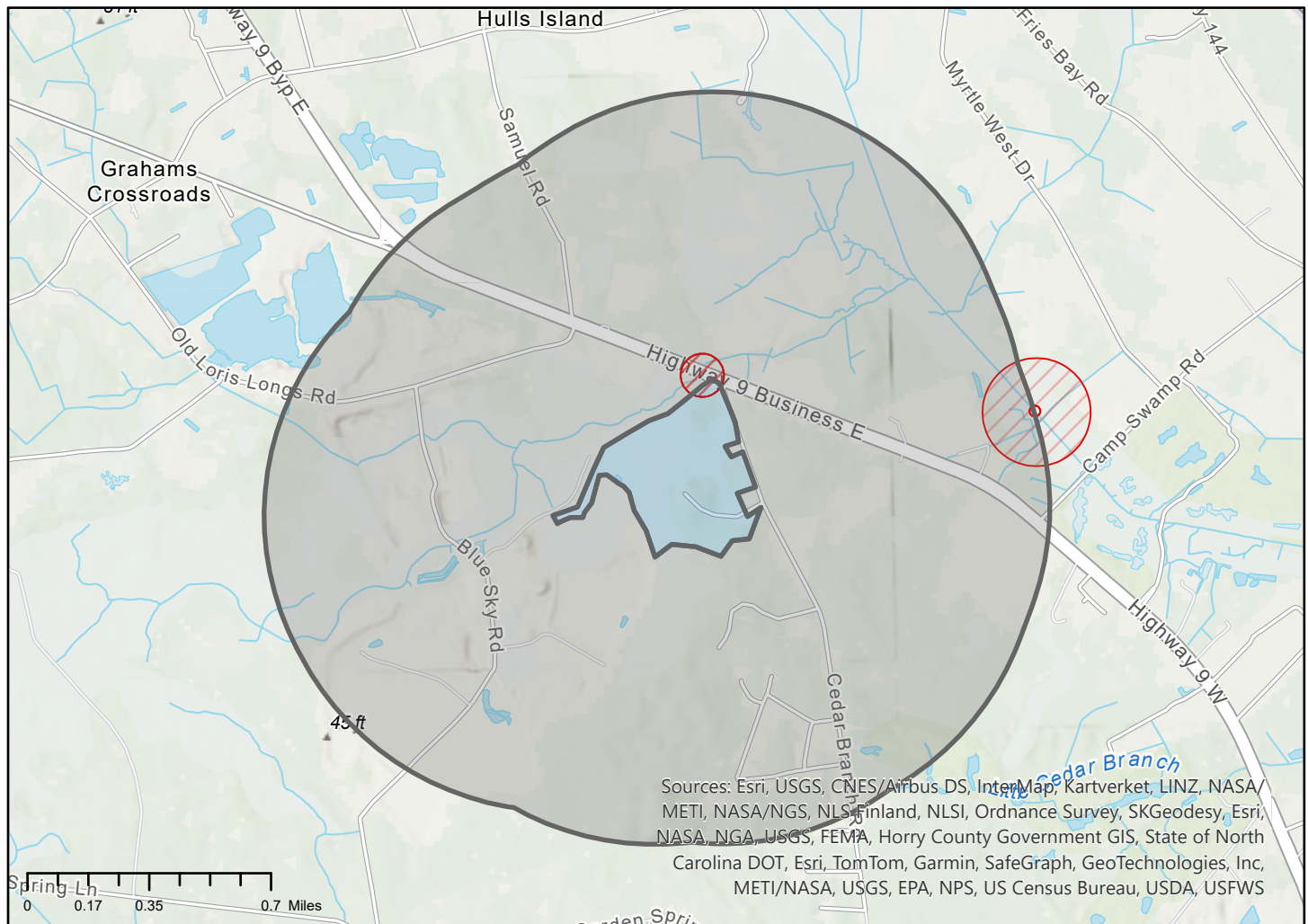
Robert H. Boyles, Jr., *Director*
Emily C. Cope, *Deputy Director, Wildlife and Freshwater Fisheries*

PO Box 167
Columbia, SC 29202
(803) 734-1396
speciesreview@dnr.sc.gov

Requested on Friday, July 12, 2024 by The Brigman Company.

Re: Request for Threatened and Endangered Species Consultation
The Brigman Company - Patel Tract Timber Harvest Area - Timberlands - Horry County, South Carolina

The South Carolina Department of Natural Resources (SCDNR) has received your request for threatened and endangered species consultation of the above named project in Horry County, South Carolina. The following map depicts the project area and a 1 mile buffer surrounding:





State of South Carolina
Department of Natural Resources

P.O. Box 167
Columbia, SC 29202
803-734-3886

Robert H. Boyles, Jr., *Director*
Emily C. Cope, *Deputy Director, Wildlife and Freshwater Fisheries*

This report includes the following items:

- A - A report for species which intersect the project area
- B - A report for species which intersect the buffer around the project area
- C - A list of best management practices relevant to species near to or within the project area
- D - A list of best management practices relevant to the project type
- E - A list of state & federally listed species within the county of the project area
- F - Instructions to submit new species observation records to the SC Natural Heritage Program

Please be advised:

The contents of this report, including all tables, maps, recommendations, and various other text, are produced as a direct result of the information a user provides at the time of submission. The SCDNR assumes that all information submitted by the user represents the project scope as proposed, and recommends that additional reports be requested should the scope deviate from how the project was initially represented to the SCDNR.

The technical comments outlined in this report are submitted to speak to the general impacts of the activities as described through inquiry by parties outside the South Carolina Department of Natural Resources. These technical comments are submitted as guidance to be considered and are not submitted as final agency comments that might be related to any unspecified local, state or federal permit, certification or license applications that may be needed by any applicant or their contractors, consultants or agents presently under review or not yet made available for public review. In accordance with its policy 600.01, Comments on Projects Under Department Review, the South Carolina Department of Natural Resources, reserves the right to comment on any permit, certification or license application that may be published by any regulatory agency which may incorporate, directly or by reference, these technical comments.

Interested parties are to understand that SCDNR may provide a final agency position to regulatory agencies if any local, state or federal permit, certification or license applications may be needed by any applicant or their contractors, consultants or agents. For further information regarding comments and input from SCDNR on your project, please contact our Office of Environmental Programs by emailing environmental@dnr.sc.gov or by visiting www.dnr.sc.gov/environmental. Pursuant to Section 7 of the Endangered Species Act, requests for formal letters of concurrence with regards to federally listed species should be directed to the USFWS.

Should you have any questions or need more information, please do not hesitate to contact our office by email at speciesreview@dnr.sc.gov or by phone at 803-734-1396.

Sincerely,

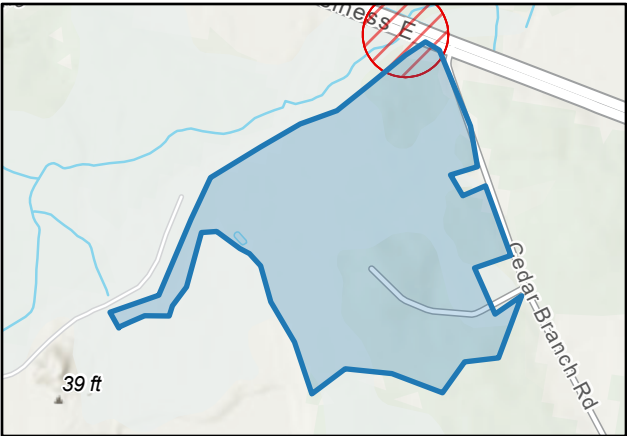
Joseph Lemeris, Jr.
Heritage Trust Program
SC Department of Natural Resources

A. Project Area - Species Report

There are 3 tracked species records found within the project foot print. The following table outlines occurrences found within the project footprint (if any), sorted by listing status and species name. Please keep in mind that this information is derived from existing databases and do not assume that it is complete. Areas not yet inventoried may contain significant species or communities. You can find more information about global and state rank status definitions by visiting Natureserve's web page. Please note that certain sensitive species found on site may be listed in this table but are not represented on the map. Please contact speciesreview@dnr.sc.gov should you have further questions related to sensitive species found within the project area.



Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Esri Community Maps Contributors, Horry County Government GIS, State of North Carolina DOT, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA,



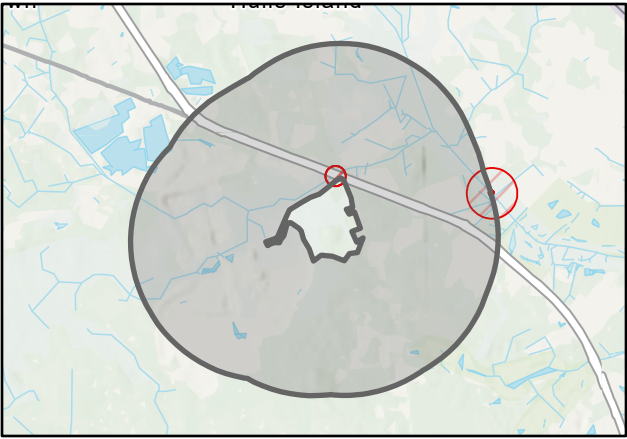
Scientific Name	Common Name	Federal Status	State Status	G Rank	S Rank	SWAP Priority	Last Obs. Date
<i>Ameiurus brunneus</i>	Snail Bullhead	NA	NA	G4	S3S4	3	1980-06-03
<i>Ameiurus catus</i>	White Catfish	NA	NA	G5	S4	3	1996-03-21
<i>Anguilla rostrata</i>	American Eel	NA	NA	G4	S3S4	1	1980-06-03

B. Buffer Area - Species Report

The following table outlines rare, threatened or endangered species found within 1 miles of the project footprint, arranged in order of protection status and species name. Please keep in mind that this information is derived from existing databases and do not assume that it is complete. Areas not yet inventoried may contain significant species or communities. You can find more information about global and state rank status definitions by visiting Natureserve's web page. Please note that certain sensitive species found within the buffer area may be listed in this table but are not represented on the map.



Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Esri, NASA, NGA, USGS, FEMA, Horry County Government GIS, State of North Carolina DOT, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA,



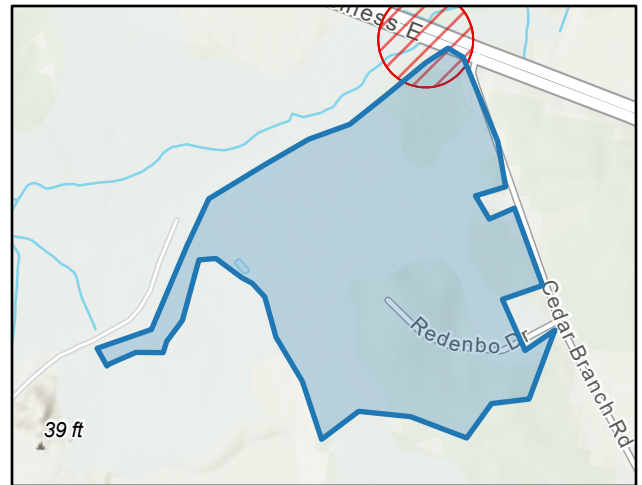
Scientific Name	Common Name	Federal Status	State Status	G Rank	S Rank	SWAP Priority	Last Obs. Date
<i>Ameiurus brunneus</i>	Snail Bullhead	NA	NA	G4	S3S4	3	1980-06-03
<i>Ameiurus catus</i>	White Catfish	NA	NA	G5	S4	3	1996-03-21
<i>Ameiurus platycephalus</i>	Flat Bullhead	NA	NA	G4	S4	3	2007-05-30
<i>Anguilla rostrata</i>	American Eel	NA	NA	G4	S3S4	1	1980-06-03
<i>Anguilla rostrata</i>	American Eel	NA	NA	G4	S3S4	1	2007-05-30
<i>Procambarus blandingii</i>	Santee Crayfish	NA	NA	G4	S4	3	No Date

C. Species Best Management Practices (1 of 1)

SCDNR offers the following comments and best management practices (BMPs) regarding this project's potential impacts to species of concern which may be found on or near to the project area. Please contact speciesreview@dnr.sc.gov should you have further questions with regard to survey methods, consultation, or other species-related concerns.



Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SK Geodesy, Esri Community Maps Contributors, Horry County Government GIS, State of North Carolina DOT, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA,



Three listed species of bats have been known to occur in the coastal plain ecoregions of South Carolina, including the state-endangered Rafinesque's big-eared bat (*Corynorhinus rafinesquii*); the federally endangered northern long-eared bat (NLEB) (*Myotis septentrionalis*); and the federally at-risk & proposed endangered tricolored bat (*Perimyotis subflavus*). Please note that take of a state endangered species is prohibited under S.C. Code of Laws §50-15-30. Prior to any land-clearing activities in the proposed project area, the SCDNR recommends a threatened and endangered species assessment be conducted to identify suitable habitat and provided to SCDNR for review.

Regarding Rafinesque's big-eared bat (1 of 2): Suitable habitat for Rafinesque's big-eared bat is defined as swamp forests, hardwood or mixed mature bottomlands, maritime forests and black gum (*Nyssa sylvatica*) and water tupelo (*Nyssa aquatic*) stands (Cochran 1999, Hofmann et al. 1999, Lance et al. 2001, Gooding and Langford 2004, Trousdale and Beckett 2005).

If suitable habitat exists within the project, the SCDNR recommends assumption of presence of Rafinesque's big-eared bat within areas of forested wetlands and to further protect these areas, surround them with a 1000-foot buffers and avoid tree clearing from May 1st to July 31st to minimize disturbance and destruction of habitat that may be used by females during gestation or maternal care for pups.

All other tree clearing outside of the forested wetlands and its associated buffer may occur in areas that are not wetlands or other aquatic resources in non-Rafinesque's big-eared bat maternity roosting habitat anytime. Where wetlands occur that are not Rafinesque's big-eared bat habitat, but they are spotted turtle habitat, tree clearing should only occur August to December to prevent impacts to spotted turtles during reproduction. However, if wetlands are dry January to June, they may be cleared, but they must be completely dry (no surface water present).

For future right-of-way management (if applicable), use heavy equipment and herbicide treatment for right-of-way vegetation management in wetlands only during the months of July to November. If wetlands are completely dry (no surface water present), heavy equipment may be used January to June, but the wetlands must be completely dry.

Please note that the northern long-eared bat is now listed as federally endangered as of March 31, 2023, making the take of the NLEB prohibited under Section 9 of the Endangered Species Act. Therefore, please consult with the USFWS regarding impacts to this species.

Please note that tricolored bat was proposed for listing by the U.S. Fish and Wildlife Service on September 13, 2022. Therefore, due to the conservation concerns surrounding this species, the SCDNR strongly suggests acoustic surveys be conducted by a qualified individual during the summer months to assess the use of the area to be cleared by tricolored bats. Should the species occur in the proposed area slated for clearing, coordination should occur with SCDNR and USFWS regarding avoidance and minimization measures.

Tricolored bat utilize caves, rock crevices, tree foliage and basal cavities, Spanish moss and man-made structures, such as houses, barns and culverts, as maternity roosts during the summer months and they will use more than one roost location.

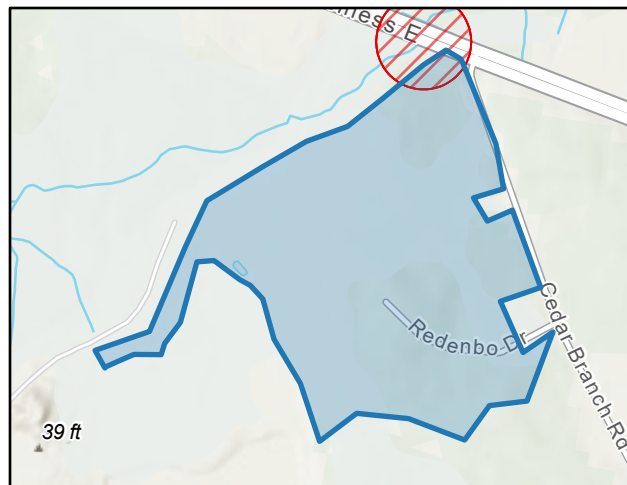
If this species are found on-site, please contact the U.S. Fish & Wildlife Service and SCDNR. The SCDNR recommends the assumption of presence of the the species and abide by a clearing moratorium from May 1st to July 31st if suitable habitat for the species is likely or are explicitly identified within the project footprint.

D. Project Best Management Practices (1 of 2)

SCDNR offers the following comments and best management practices (BMPs) regarding this project's potential impacts to natural resources within or surrounding the project area. Please contact our Office of Environmental Programs at environmental@dnr.sc.gov should you have further questions with regard to best management practices related to this project area.



Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Esri Community Maps Contributors, Horry County Government GIS, State of North Carolina DOT, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA,



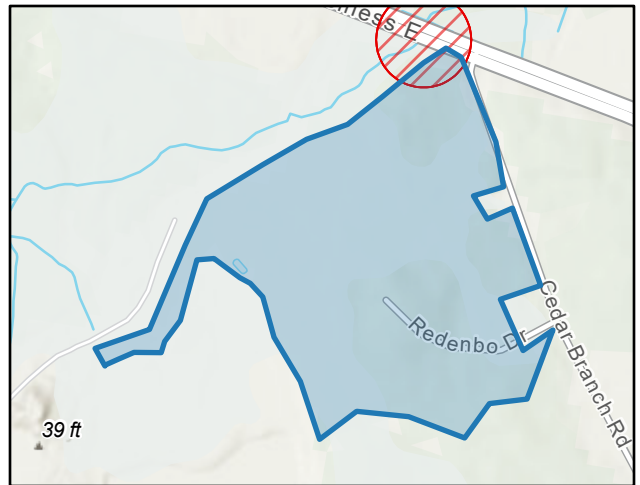
Review of available data, National Wetlands Inventory and hydric soils, indicate that wetlands or waters of the United States are present within your project area. These areas may require a permit from the U.S. Army Corps of Engineers (USACE), as well as a compensatory mitigation plan. SCDNR advises that you consult with the USACE Regulatory to determine if jurisdictional wetlands are present and if a permit and mitigation is required for any activities impacting these areas. For more information, please visit their website at www.sac.usace.army.mil/Missions/Regulatory. Additionally, a 401 Water Quality Certification may also be required from the SC Department of Health & Environmental Control. For more information, please visit their website at <https://www.scdhec.gov/environment/water-quality/water-quality-certification-section-401-clean-water-act>.

- If clearing must occur, riparian vegetation within wetlands and waters of the U.S. must be conducted manually and low growing, woody vegetation and shrubs must be left intact to maintain bank stability and reduce erosion.
- Construction activities must avoid and minimize, to the greatest extent practicable, disturbance of woody shoreline vegetation within the project area. Removal of vegetation should be limited to only what is necessary for construction of the proposed structures.
- Where necessary to remove vegetation, supplemental plantings should be installed following completion of the project. These plantings should consist of appropriate native species for this ecoregion and exclude plant species found on the exotic pest plant council list: https://www.se-eppc.org/southcarolina/SCEPPC_LIST2014finalOct.pdf.

Excavation/Construction activities must not occur during fish spawning season from March through June due to its negative impacts on eggs and reproduction activities.

D. Project Best Management Practices (2 of 2)

SCDNR offers the following comments and best management practices (BMPs) regarding this project's potential impacts to natural resources within or surrounding the project area. Please contact our Office of Environmental Programs at environmental@dnr.sc.gov should you have further questions with regard to best management practices related to this project area.



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- All necessary measures must be taken to prevent oil, tar, trash and other pollutants from entering the adjacent offsite areas/wetlands/ water.
- Once the project is initiated, it must be carried to completion in an expeditious manner to minimize the period of disturbance to the environment.
- Upon project completion, all disturbed areas must be permanently stabilized with vegetative cover (preferable), riprap or other erosion control methods as appropriate.
- The project must be in compliance with any applicable floodplain, stormwater, land disturbance, shoreline management guidance or riparian buffer ordinances.
- Prior to beginning any land disturbing activity, appropriate erosion and siltation control measures (e.g. silt fences or barriers) must be in place and maintained in a functioning capacity until the area is permanently stabilized.
- Materials used for erosion control (e.g., hay bales or straw mulch) will be certified as weed free by the supplier.
- Inspecting and ensuring the maintenance of temporary erosion control measures at least:
 - a. on a daily basis in areas of active construction or equipment operation;
 - b. on a weekly basis in areas with no construction or equipment operation; and
 - c. within 24 hours of each 0.5 inch of rainfall.
- Ensuring the repair of all ineffective temporary erosion control measures within 24 hours of identification, or as soon as conditions allow if compliance with this time frame would result in greater environmental impacts.
- Land disturbing activities must avoid encroachment into any wetland areas (outside the permitted impact area). Wetlands that are unavoidably impacted must be appropriately mitigated.
- Your project may require a Stormwater Permit from the SC Department of Health & Environmental Control, please visit <https://www.scdhec.gov/environment/water-quality/stormwater>

Your project area includes a FEMA special flood hazard area and may require a permit from the County National Floodplain Insurance Program Manager before impacts occur to aquatic resources and the associated floodplains on site. Please refer to <https://www.dnr.sc.gov/water/flood/documents/nfipadmindirectory.pdf> to find your appropriate contact information.

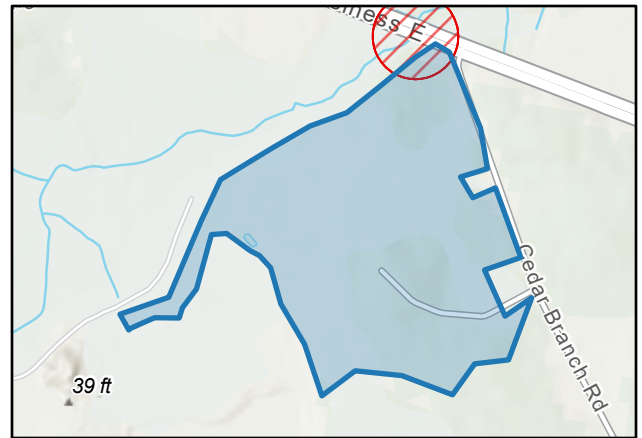
- Your project boundary lies within a coastal county in South Carolina which means you may also need a Coastal Zone Consistency Certification for your project from the SC Department of Health and Environmental Control. For more information, visit: <https://www.scdhec.gov/environment/your-water-coast/ocean-coastal-management/beach-management/coastal-permits/coastal-zone>
- If your project could affect coastal waters, tidelands, beaches and beach/dune systems, you may also need a critical area permit from the SC Department of Health and Environmental Control. For more information, visit: <https://www.scdhec.gov/environment/your-water-coast/ocean-coastal-management/beach-management/coastal-permits/critical-1>

E. State & Federally Listed Species in Horry County

The South Carolina Department of Natural Resources' Heritage Trust Program organizes a database that captures and tracks element of occurrence data for rare, threatened and endangered species, both federal and state. Please keep in mind that this information included within this report is derived from existing databases, and do not assume that it is complete. Areas not yet inventoried may contain significant species or communities. If your project requires the assessment of potential threatened or endangered species that could be within the project area, the SCDNR asks that you include a review of the state listed species within the county or watershed in addition to those that may be within the report as being within the project footprint or within 1-mile of the proposed project area. Consideration should be given to the occurrence of suitable habitat onsite, species movement and connectivity of habitat when assessing the likelihood of a state listed species on the project area.



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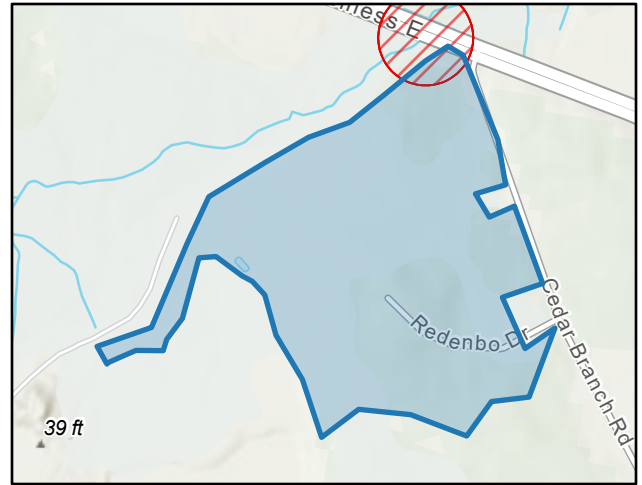


County	Scientific Name	Common Name	G Rank	S Rank	Federal Status	State Status	Group Type
Horry	<i>Acipenser brevirostrum</i>	Shortnose Sturgeon	G3	S3	LE: Federally Endangered	SE: State Endangered	Zoological
Horry	<i>Acipenser oxyrinchus oxyrinchus</i>	Atlantic Sturgeon	G3T3	S3	LE: Federally Endangered	Not Applicable	Zoological
Horry	<i>Amaranthus pumilus</i>	Seabeach Amaranth, Dwarf Amaranth	G2	S1	LT: Federally Threatened	Not Applicable	Botanical
Horry	<i>Atrytone arogos</i>	Arogos Skipper; Eastern Beard Grass	G2G3	SH	ARS: At-Risk Species	Not Applicable	Zoological
Horry	<i>Bombus pensylvanicus</i>	American Bumble Bee	G3G4	SNR	ARS: At-Risk Species	Not Applicable	Zoological
Horry	<i>Caretta caretta</i>	Loggerhead Sea Turtle	G3	S3	LT: Federally Threatened	ST: State Threatened	Zoological
Horry	<i>Charadrius melodus</i>	Piping Plover	G3	S2N	LT: Federally Threatened	SE: State Endangered	Zoological
Horry	<i>Chelonia mydas</i>	Green Sea Turtle	G3	S1	LT: Federally Threatened	ST: State Threatened	Zoological
Horry	<i>Clemmys guttata</i>	Spotted Turtle	G5	S2	ARS: At-Risk Species	ST: State Threatened	Zoological
Horry	<i>Columbina passerina</i>	Common Ground Dove	G5	S3	MBTA: Migratory Bird Treaty Act	ST: State Threatened	Zoological
Horry	<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared Bat	G3G4	S2	Not Applicable	SE: State Endangered	Zoological
Horry	<i>Danaus plexippus</i>	Monarch Butterfly	G4	S4	C: Candidate	Not Applicable	Zoological
Horry	<i>Dermochelys coriacea</i>	Leatherback Sea Turtle	G2	S1	LE: Federally Endangered	SE: State Endangered	Zoological
Horry	<i>Dryobates borealis</i>	Red-cockaded Woodpecker	G3	S2	LE: Federally Endangered	SE: State Endangered	Zoological
Horry	<i>Elanoides forficatus</i>	Swallow-tailed Kite	G5	S2	MBTA: Migratory Bird Treaty Act	SE: State Endangered	Zoological
Horry	<i>Elassoma boehlkei</i>	Carolina Pygmy Sunfish	G2	S1	Not Applicable	ST: State Threatened	Zoological
Horry	<i>Fimbristylis perpusilla</i>	Harper's Fimbr	G2	S1	ARS: At-Risk Species	Not Applicable	Botanical
Horry	<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3B,S3N	Bald & Golden Eagle Protection Act	ST: State Threatened	Zoological
Horry	<i>Heterodon simus</i>	Southern Hog-nosed Snake	G2	S1	Not Applicable	ST: State Threatened	Zoological
Horry	<i>Lasiurus cinereus</i>	Hairy Bat	G3G4	S2	ARS: At-Risk Species	Not Applicable	Zoological
Horry	<i>Laterallus jamaicensis</i>	Black Rail	G3	S1	LT: Federally Threatened	Not Applicable	Zoological
Horry	<i>Lepidochelys kempi</i>	Kemp's Ridley Sea Turtle	G1	S1N	LE: Federally Endangered	SE: State Endangered	Zoological
Horry	<i>Lindera melissifolia</i>	Southern Spicebush, Pondberry	G3	S2	LE: Federally Endangered	Not Applicable	Botanical
Horry	<i>Ludwigia ravenii</i>	Raven's Seedbox	G1G2	S1	ARS: At-Risk Species	Not Applicable	Botanical
Horry	<i>Mycteria americana</i>	Wood Stork	G4	S2	LT: Federally Threatened	SE: State Endangered	Zoological
Horry	<i>Perimyscus subflavus</i>	Tricolored Bat	G3G4	S3	LEP: Federally Endangered (Proposed)	Not Applicable	Zoological
Horry	<i>Sabulina paludicola</i>	Godfrey's Sandwort	G1	SX	ARS: At-Risk Species	Not Applicable	Botanical
Horry	<i>Schwalbea americana</i>	Chaffseed	G2	S2	LE: Federally Endangered	Not Applicable	Botanical
Horry	<i>Setophaga virens waynei</i>	Wayne's Black-throated Green	G5T1	S1S2B	ARS: At-Risk Species	Not Applicable	Zoological
Horry	<i>Sporobolus teretifolius</i>	Wireleaf Dropseed	G2	S1	ARS: At-Risk Species	Not Applicable	Botanical
Horry	<i>Sternula antillarum</i>	Least Tern	G4	S2B	MBTA: Migratory Bird Treaty Act	ST: State Threatened	Zoological
Horry	<i>Trichechus manatus</i>	Florida Manatee	G2G3	S2S3	LT: Federally Threatened	SE: State Endangered	Zoological

F. Instructions for Submitting Species Observations

The SC Natural Heritage Dataset relies on continuous monitoring and surveying for species of concern throughout the state. Any records of species of concern found within this project area would greatly benefit the quality and comprehensiveness of the statewide dataset for rare, threatened and endangered species. Below are instructions for how to download the SC Natural Heritage Occurrence Reporting Form through the Survey123 App.

Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Esri Community Maps Contributors, Horry County Government GIS, State of North Carolina DOT, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA,



Conservation Ranks & SWAP Priority Status

The SC Natural Heritage Program assigns S Ranks for species tracked within the state of South Carolina based on ranking methodology developed by NatureServe and its state program network. For information conservation rank definitions, please visit <https://explorer.natureserve.org/AboutTheData/Statuses>

The SCDNR maintains and updates its State Wildlife Action Plan (SWAP) every 10 years. This plan categorizes species of concern by Moderate, High, and Highest Priority. Please visit <https://www.dnr.sc.gov/swap/index.html> for more information about the SC SWAP.

Important Information Regarding Element Occurrence Data:

The South Carolina Department of Natural Resources' Heritage Trust Program organizes a database that captures and tracks element of occurrence data for rare, threatened and endangered species, both federal and state. Please keep in mind that this information included within this report is derived from existing databases, and do not assume that it is complete. Areas not yet inventoried may contain significant species or communities. If your project requires the assessment of potential threatened or endangered species that could be within the project area, the SCDNR asks that you include a review of the state listed species within the county or watershed in addition to those that may be within the report as being within the project footprint or within 1-mile of the proposed project area. Consideration should be given to the occurrence of suitable habitat onsite, species movement and connectivity of habitat when assessing the likelihood of a state listed species on the project area. To view these lists please visit our county and watershed dashboards at our website: <https://schtportal.dnr.sc.gov/portal/apps/sites/#track>

Instructions for accessing the SC Natural Heritage Occurrence Reporting Form

For use in a browser (on your desktop/PC):

- 1) Follow <https://bit.ly/scht-reporting-form>
- 2) Select 'Open in browser'
- 3) The form will open and you can begin entering data!

This method of access will also work on a browser on a mobile device, but only when connected to the internet. To use the form in the field without relying on data/internet access, follow the steps below.

For use on a smartphone or tablet using the field app:

- 1) Download the Survey123 App from the Google Play store or the Apple Store. This app is free to download. Allow the app to use your location.
- 2) Use the camera app (or other QR Reader app) to scan the QR code on this page from your smartphone or tablet. Click on the 'Open in the Survey123 field app'. This will prompt a window to allow Survey123 to download the SC Natural Heritage Occurrence Reporting Form. Select 'Open.'
- 3) The form will automatically open in Survey123, and you can begin entering data! This form will stay loaded in the app on your device until you manually delete it, and you can submit as many records as you like.

