

Biological Evaluation
Adrian Sand/Clay Pit Tract-Updated
Conway, Horry County, South Carolina
Project No. 01339-23288

PREPARED FOR:

Adrian Sand, LLC
3530 West Highway 501
Conway, South Carolina 29526

PREPARED BY:

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

May 4, 2023-Revised May 11, 2023
Updated November 06, 2023



THE BRIGMAN COMPANY

November 6, 2023

Adrian Sand, LLC
3530 West Highway 501
Conway, SC 29526

Attention: Mr. Craig Kennedy

Reference: **Biological Evaluation**
Adrian Sand/Clay Pit Tract-Updated
Conway, Horry County, South Carolina
Project No. 01339-23288

Dear Mr. Moore:

The Brigman Company (TBC) is pleased to submit this report detailing our updated Biological Evaluation for the Adrian Sand/Clay Pit Tract (i.e. the Property) located on Chow Lane in the community of Adrian, Horry County, South Carolina. This work was performed in accordance with TBC's Professional Services Contract, authorized on October 31, 2023. 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 is comprised of a tract of land (Horry County TMS# 084-00-02-018-portion of) totaling approximately 57.21 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 Adrian, S.C. topographic quadrangle map dated 1980. 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 eastern Horry County within the Coastal Plain Physiographic Province of South Carolina. The USGS topographic quadrangle (Exhibit 2) depicts the Property as partially cleared for agricultural fields with a fringe of wooded areas in 1904. The surrounding properties consist of undeveloped, wooded land and a few residential homes. Exhibit 3 of this report depicts the Property overlaid on an aerial photograph. The majority of the Property is comprised of herbaceous vegetation with broom grass (*Andropogon virginicus*) dominating. The wooded area surrounding the parcel has been timbered recently and does not contain any woody vegetation larger than 3 inches in diameter. A upland excavated borrow pit on the property is located on the western property line.

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-three (23) federally protected species listed for Horry County, South Carolina and one candidate species. However, fifteen (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>Oxypolis canbyi</i>	Mid-August-September	Endangered
Pondberry	<i>Lindera melissifolia</i>	February-March	Endangered
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	Year round	Endangered
Monarch Butterfly	<i>Danaus plexippus</i>	August-December	Candidate

A pedestrian field review was performed for protected species and suitable habitats to support protected species on May 4, 2023 by Mr. Jeffery Vereen of TBC with a follow-up visit on November 1, 2023. 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. Suitable habitat for this species was not observed on the Property.

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. During the site reconnaissance, no suitable habitat to support Canby's dropwort was observed on the Property.

Pondberry is associated with wetland habitats such as bottomland hardwoods and the margins of sinks, ponds, and other depressions in the coastal plain. As with the above species, no suitable habitat exists on the Property and no pondberry specimens were found.



Vertebrates:

No Effect

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.

The red-cockaded woodpecker 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 suitable nesting or foraging habitat does not exist on the Property.

The wood stork typically requires coastal areas, tidal waters, marshes, swamps, streams and mangroves for nesting and feeding. Suitable nesting or foraging habitat was not present on the Property. The proposed project will not affect the wood stork or any of the other listed species of birds for Horry County.

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.

The Spotted turtle (*Clemmys guttata*) is a state threatened species that favors shallow and slow moving waters with soft, muddy soil vegetated with sedges (*Carex spp.*), cattails (*Typha spp.*) and sphagnum (*Sphagnum spp.*) moss. The property does not contain any wetlands or other suitable habitat for the Spotted turtle.

Fish and Marine Species:

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

Mammals:

The northern long-eared bat 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. In addition, determination keys on the IPaC's site were conducted for the NLEB and separately for the rest of the listed species for Horry County. These letters find that future development of the Property "may affect, but is not likely to adversely affect" any of the listed species and are attached in the Appendix of this report.

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, as well as coordination with USF&WS and SC DNR, it is our opinion that future activities associated with proposed development on the Property may effect, but not adversely affect any of the federally listed protected plant, bird or candidate species for Horry County, including the NLEB. As stated above, a consistency letter from the USF&WS was generated on the IPaC's website that confirms TBC's findings for the listed species and a separate letter for the NLEB. These letters are included in the Appendix of this report and no further action from the USF&WS is required.

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,

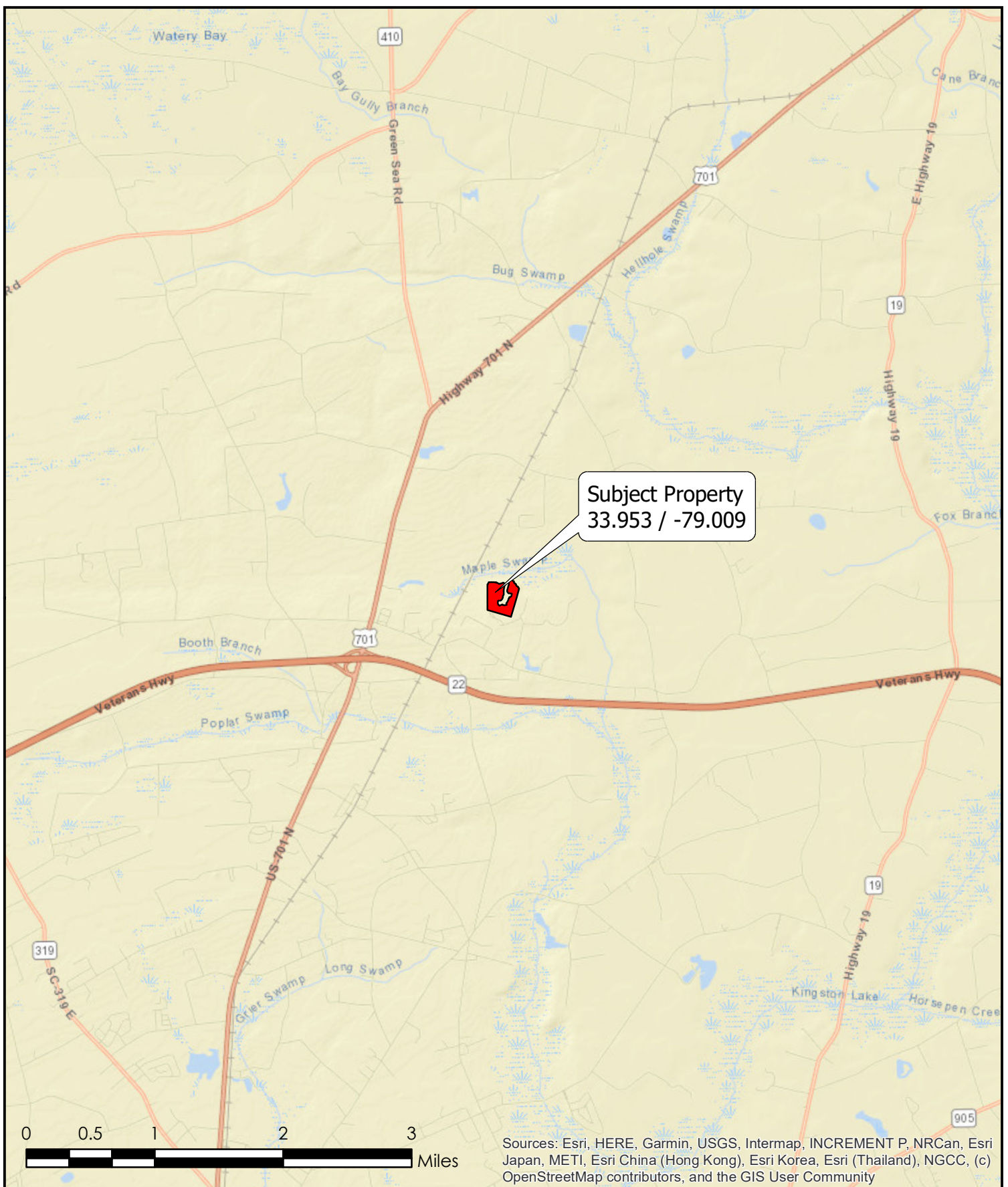
A handwritten signature in black ink, appearing to read 'Jeffrey Vereen'.

Jeffrey 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-Updated
NLAA Consistency Letter for the NLEB
NLAA Consistency Letter for Listed Species
SC Natural Heritage Report-Updated



TBC
THE BRIGMAN CO.

Site Vicinity Map
Adrian Sand-Clay Pit Tract
Portion of TMS# 084-00-02-018
Horry County, SC
November 2023



1" = 1 miles



Copyright:© 2013 National Geographic Society, i-cubed



TBC
THE BRIGMAN CO.

USGS Adrian, SC Topographic Map (1980)


Adrian Sand-Clay Pit Tract
Portion of TMS# 084-00-02-018
Horry County, SC
November 2023

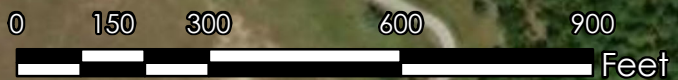


1" = 500'



LEGEND

 Subject Property

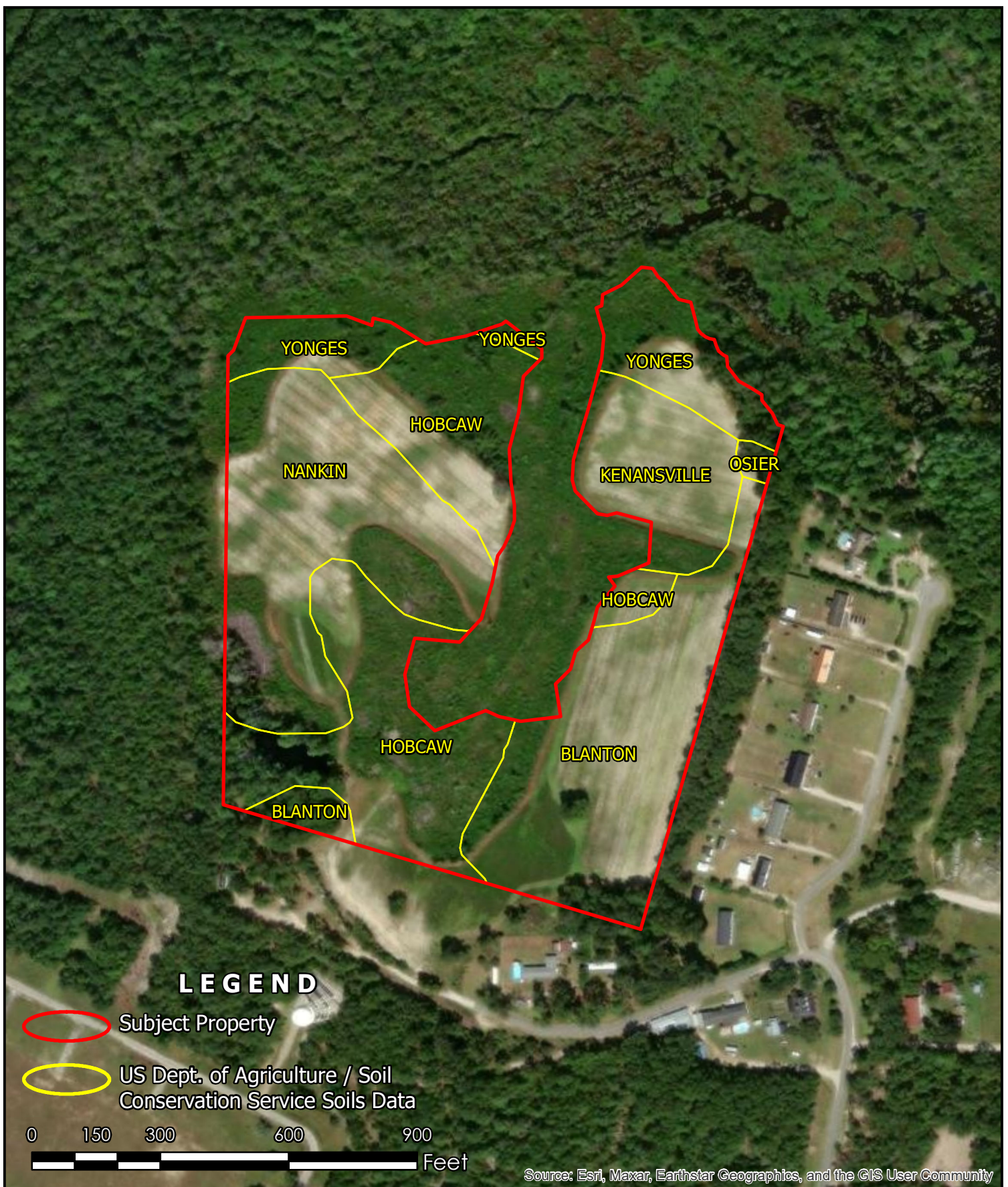


Esri, HERE, Garmin, (c) OpenStreetMap contributors, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community





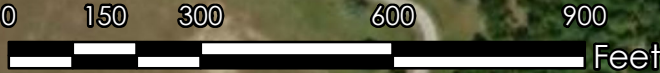
Aerial Photograph Exhibit
 Adrian Sand-Clay Pit Tract
 Portion of TMS# 084-00-02-018
 Horry County, SC
 November 2023





LEGEND

-  Subject Property
-  US Dept. of Agriculture / Soil Conservation Service Soils Data



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



USDA / SCS Soils Map
 Adrian Sand-Clay Pit Tract
 Portion of TMS# 084-00-02-018
 Horry County, SC
 November 2023

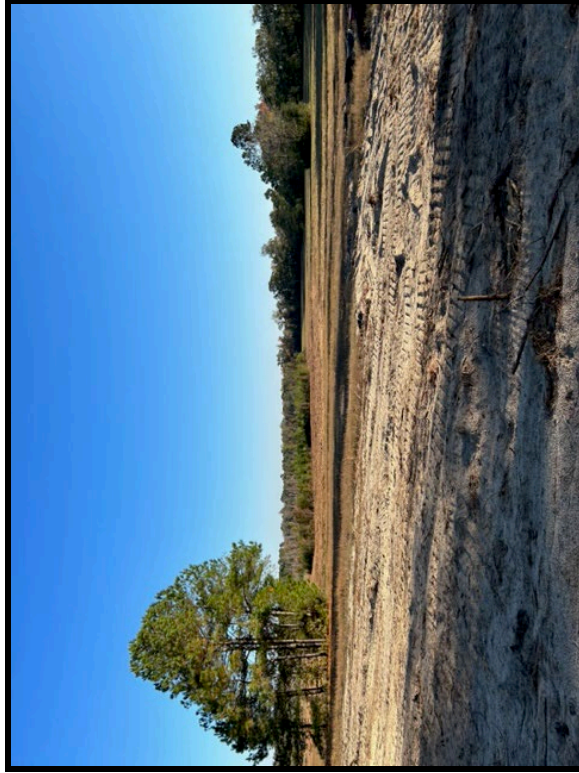




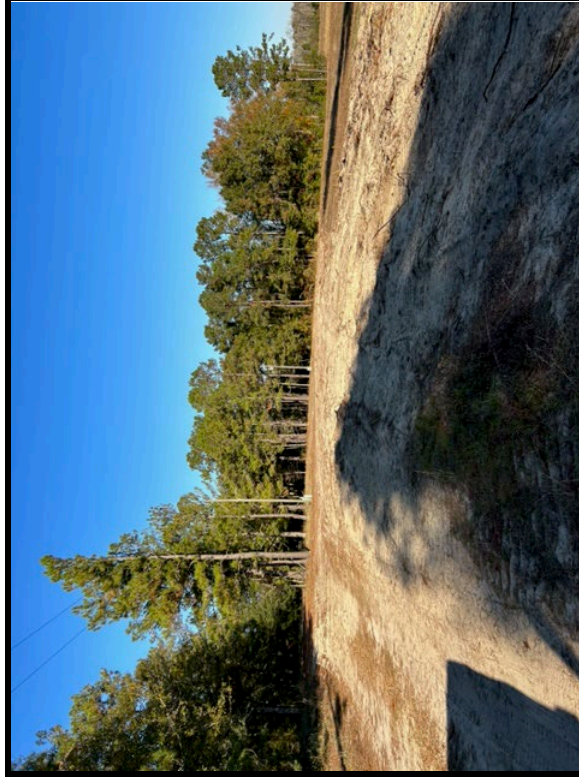
1 View of upland excavated borrow pit.



2 View of property facing northeast.



3 View of property facing northwest.



4 View of property facing west.



Site Photographs
Adrian Sand-Clay Pit Tract/Updated
Horry County, South Carolina

Project No.: 01339-23288

Taken by: JV

Date Taken: 11/01/23



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:
Project Code: 2023-0077818
Project Name: Adrian Sand/Clay Pit Tract-Update

November 06, 2023

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: 2023-0077818

Project Name: Adrian Sand/Clay Pit Tract-Update

Project Type: Commercial Development

Project Description: Subject tract is the proposed location of a sand/clay mine site.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.951912899999996,-79.00948002607984,14z>



Counties: Horry County, South Carolina

ENDANGERED SPECIES ACT SPECIES

There is a total of 14 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.

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. 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 final 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
Loggerhead Sea Turtle <i>Caretta caretta</i> Population: Northwest Atlantic Ocean DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1110	Threatened

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 below.

-
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 below.

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)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Brown-headed Nuthatch <i>Sitta pusilla</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9427	Breeds Mar 1 to Jul 15
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Swallow-tailed Kite <i>Elanoides forficatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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.

FRESHWATER FORESTED/SHRUB WETLAND

- PSS1/4B
- PFO1F
- PFO1C

FRESHWATER POND

- PUBHx
-

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:
Project code: 2023-0077818
Project Name: Adrian Sand/Clay Pit Tract-Update

November 06, 2023

Federal Nexus: no
Federal Action Agency (if applicable):

Subject: Technical assistance for 'Adrian Sand/Clay Pit Tract-Update'

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 November 06, 2023, for 'Adrian Sand/Clay Pit Tract-Update' (here forward, Project). This project has been assigned Project Code 2023-0077818 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
- Loggerhead Sea Turtle *Caretta caretta* Threatened
- 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 2023-0077818 associated with this Project.

Action Description

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

1. Name

Adrian Sand/Clay Pit Tract-Update

2. Description

The following description was provided for the project 'Adrian Sand/Clay Pit Tract-Update':

Subject tract is the proposed location of a sand/clay mine site.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.951912899999996,-79.00948002607984,14z>



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:
Project code: 2023-0077818
Project Name: Adrian Sand/Clay Pit Tract-Update

November 06, 2023

Subject: Consistency letter for 'Adrian Sand/Clay Pit Tract-Update' 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 **November 06, 2023** your effect determination(s) for the 'Adrian Sand/Clay Pit Tract-Update' (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
Loggerhead Sea Turtle (<i>Caretta caretta</i>)	Threatened	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

Adrian Sand/Clay Pit Tract-Update

2. Description

The following description was provided for the project 'Adrian Sand/Clay Pit Tract-Update':

Subject tract is the proposed location of a sand/clay mine site.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.951912899999996,-79.00948002607984,14z>



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 loggerhead sea turtle AOI?

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

19. Does the project intersect the pondberry AOI?

Automatically answered

Yes

20. 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

21. Does the project intersect the American chaffseed AOI?

Automatically answered

Yes

22. 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

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

Automatically answered

Yes

24. 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

25. 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

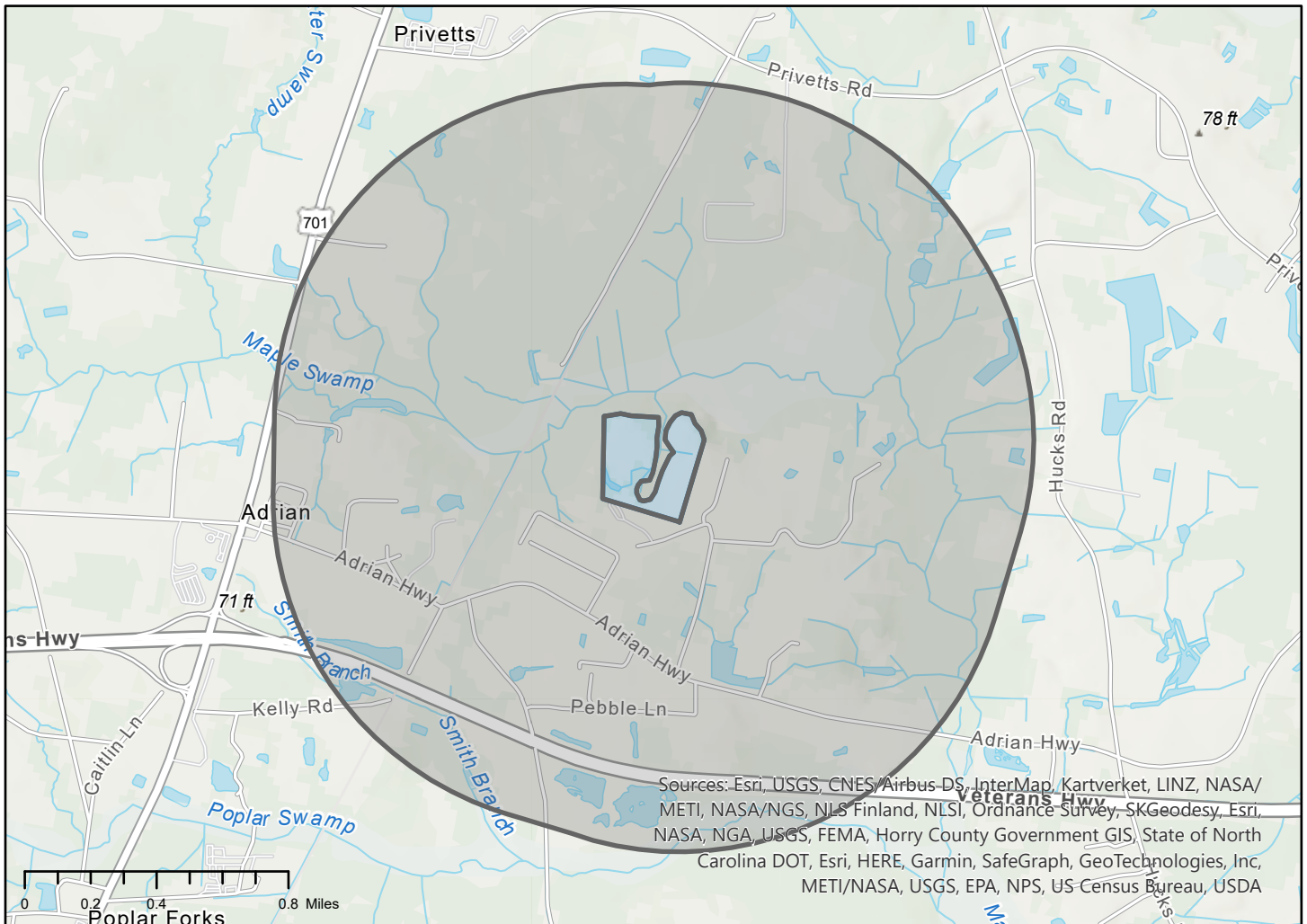
Robert H. Boyles, Jr., *Director*
Emily C. Cope, *Deputy Director, Wildlife and Freshwater Fisheries*

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

Requested on Monday, November 6, 2023 by Jeffery Vereen.

Re: Request for Threatened and Endangered Species Consultation
The Brigman Company - Adrian Sand-Clay Pit Tract-Update - Development (Commercial/Residential) - 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 0 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.

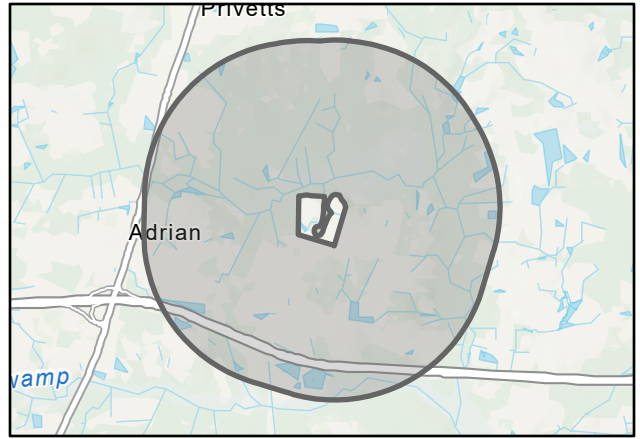


Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Esri Community Maps Contributors, Horry County Government GIS, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA,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

No records for species of concern are found within the project area

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, Horry County Government GIS, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, Esri, NASA, NGA,

Scientific Name	Common Name	Federal Protection Status	State Protection Status	G Rank	S Rank	SWAP Priority	Last Obs. Date
<i>Clemmys guttata</i>	Spotted Turtle	ARS: At-Risk Species	ST: State Threatened	G5	S3	High	2020-04-08

C. Species Best Management Practices (1 of 3)

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, SKGeodesy, Esri Community Maps Contributors, Horry County Government GIS, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA,



One or more occurrences of state listed species are found within or near to your project area. Please note that take of these species are prohibited under S.C. Code of Laws §50-15-30.

Regarding spotted turtle (1 of 3): The spotted turtle (*Clemmys guttata*) is a state-threatened species and a federal At-Risk species (ARS). Spotted turtles may be allowed to be relocated into areas of suitable habitat, management, and conservation status; however, any plans for relocation should be submitted for review to SCDNR with a detailed description and images of the current and future habitat and proposed work plan and methodologies as it pertains to a relocation project. It should be noted that not all habitats are suitable for relocation.

- Avoid any construction in areas within or adjacent to aquatic resources (wetlands, streams, etc.) from January 15th through May 31st.
- Prior to any construction activity, install silt fencing from November 15th through January 15th. Silt fencing should include 45-degree arms to direct spotted turtles to the uplands adjacent to the waterbody and away from the construction site. The 45-degree arms should be placed at a minimum of 100 ft from the waterbody and no more than 300 ft from the waterbody. Additionally, silt fence arms should extend at least 50-ft and extend in each direction so that the ends of each 45-degree angle to the fence meet to form a triangle. Silt fencing should remain in place throughout the duration of the proposed construction activities.
- Prior to construction, monitor the silt fencing to ensure it is effectively working properly on a monthly basis. This should effectively exclude the species from the project area prior to construction activities. Once construction activities begin, the silt fence should be monitored weekly for the integrity of the fencing and the presence of spotted turtles or other herpetofauna or small wildlife species. If spotted turtles are encountered, the SCDNR state herpetologist should be notified immediately by calling 854-202-0472.

Regarding spotted turtle (2 of 3): Should the applicant not be able to install the silt fencing in accordance with the proposed window, it will require the applicant to install the exclusion fencing when the species is more active and has the potential to trap individuals with the area of proposed construction. Therefore, the SCDNR recommends checking the perimeter of the fencing twice daily for 14 days prior to ground disturbance and/or clearing in areas adjacent to and near these wetlands to ensure that spotted turtles are not trapped within the proposed project footprint.

Any turtles found within the construction area during this initial monitoring period and the construction monitoring period described below must be relocated. The relocation plan must be submitted to SCDNR for review prior to the installation of the silt fencing and the proper permits acquired from the SCDNR Herpetologist for the movement of a state protected species. Please contact the State Herpetologist by calling 854-202-0472.

Regarding spotted turtle (3 of 3): For areas where construction will occur in wetlands, the SCDNR recommends the following to prevent the take of this state protected species:

- Surveys for the presence of spotted turtle in wetlands to be impacted should occur from February 15th – April 15th. The best window for visually identifying spotted turtles as well as successfully trapping is February to early May. Visual surveys are usually most effective February to April and trapping, usually March to May. All of this depends on water levels in the surveyed wetland habitat. If dry or extremely low water levels, neither method will be effective or appropriate. Spotted turtles utilize wetland habitat during certain times of the year, but during periods of drought or low water levels, spotted turtles will aestivate in the surrounding forests adjacent to wetlands. The SCDNR recommends one of the methods detailed in the Spotted Turtle Assessment Protocol developed by the Spotted Turtle Working Group be utilized. Following completion of surveys, the results should be submitted to SCDNR, and further coordination occur if spotted turtle are found to be present onsite.

C. Species Best Management Practices (2 of 3)

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, SKGeodesy, Esri Community Maps Contributors, Horry County Government GIS, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA,



Species in the above table with SWAP priorities of High, Highest or Moderate are designated as having conservation priority under the South Carolina State Wildlife Action Plan (SWAP). SWAP species are those species of greatest conservation need not traditionally covered under any federal funded programs. Species are listed in the SWAP because they are rare or designated as at-risk due to knowledge deficiencies; species common in South Carolina but listed rare or declining elsewhere; or species that serve as indicators of detrimental environmental conditions. SCDNR recommends that appropriate measures should be taken to minimize or avoid impacts to the aforementioned species of concern.

This project falls within an area that supports black bear (*Ursus americanus*) populations, a moderate SWAP conservation priority species that requires fire-dependent habitats. The SCDNR recommends that any project area be developed with that in mind. Black bears are attracted to human foods, food waste and packaging (e.g. trash cans, litter, outdoor grills, bird feeders, etc.) and other scented substances and may become habituated to the presence of such attractants if they are obtained. Therefore, the development should be designed in a manner that will substantially minimize the availability of unnatural bear attractants. For example, any exterior trash receptacles must be designed and operated to be 'bear proof' and storage areas should be appropriately secured to prevent access by bears, etc. Some helpful bear-wise tactics can be found at <https://bearwise.org/six-bearwise-basics/>.

Related to American alligator (1 of 3):

American alligator (*Alligator mississippiensis*), a federally and state regulated species, is common throughout freshwater habitats in the Coastal Plain of South Carolina. Juvenile alligators frequently utilize stormwater or stormwater-like ponds, such as golf course ponds or resort lagoons, to avoid being preyed upon by larger adult alligators. Alligators are ambush predators that spend most of their lives in water. They have a natural fear of people unless they become habituated. Most often alligators become habituated when people feed them, either purposefully or accidentally. Please note it is illegal to feed, entice or molest an alligator pursuant to S.C. Code of Laws §50-15-500(C); it is also illegal to kill or possess an alligator without a permit pursuant to S.C. Code §50-15-500(D). Accidental feeding can occur when people do not properly dispose of food or fish carcasses associated with recreational fishing or indirect feeding of other wildlife, such as fish, turtles, or ducks, where alligators resides. A habituated alligator is more likely to approach or be near people and pose a potential threat. Therefore, any development should be designed in a manner that will substantially minimize the interaction of alligators and people.

Related to American alligator (2 of 3):

The SCDNR recommends the following best management practices to deter human and alligator interactions:

- Any private property or private yards near ponds or waterways should be fenced to limit unexpected alligator encounters. If fencing individual yards is not possible, fencing around the pond should occur. Keeping people, pets, and children from the edge of the water is the single best way to prevent alligator interactions. Due to the alligator's ability to ambush and lunge a great distance to capture its prey, walking paths around ponds should be a minimum of 10 feet from the shoreline. However, to provide greater protection, the SCDNR recommends this distance be increased to 30 feet to reduce alligator and human conflicts. Brush near the water's edge should be managed and considered in the minimum distance as alligators will utilize vegetation to rest and hunting to wait and ambush prey. If vegetation extends five feet from the edge of the water, then the walkway should be a minimum of 10 to ideally 30 feet beyond the farthest edge of vegetation from the water. Additionally, consideration should be given to require that all dogs on walkways near stormwater ponds or pond-like features in the neighborhood must be leashed to prevent alligator from targeting pets as prey. There should be a designated area included in design plans to provide a place for fishermen to properly dispose of fish carcasses or bait to avoid the accidental feeding and habituation of alligators.

C. Species Best Management Practices (3 of 3)

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, SKGeodesy, Esri Community Maps Contributors, Horry County Government GIS, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA,



Related to American alligator (3 of 3):

The SCDNR recommends the following best management practices to deter human and alligator interactions:

- Retention ponds, lagoons and other water features should be designed to limit the occurrence of alligator basking adjacent to homes and walkways. As alligators are more likely to bask on shallow slopes, this can be achieved by construction of shallow bank slopes away from the homes and steeper bank slopes near homes or walkways.
- Warning signs noting the presence of alligators and that feeding is illegal should be posted at the entrances to the neighborhood and at any access point where people may be able to approach the water's edge. Signs can be acquired by calling SCDNR at 843-546-6062 or can be purchased on our website at www.gooutdoorsouthcarolina.com.
- The SCDNR recommends that the HOA/management company for the residential development should provide information and educational handouts to all residents on an annual basis prior to spring and summer before alligator activity increases. Information and educational handouts are available on our website www.dnr.sc.gov/wildlife/herps/alligator.

D. Project Best Management Practices (1 of 3)

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, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA,



Please be aware that the proposed development is in close proximity to property managed to maintain high-quality wildlife habitats using prescribed burning. Future property owners in this area should be made aware of the potential for smoke and hazardous conditions during seasonal prescribed burning events. In an effort to inform the public and allow for the continued use of this essential management tool, the SCDNR strongly encourages the use of smoke easement restrictive covenant and contract language associated with individual lots such that the owners of each individual lots will be required to acknowledge and agree that they may experience noise and smoke emanating from time to time from adjacent protected lands in connection with prescribed burning techniques employed to reduce understory growth, improve wildlife habitat and decrease chances of wildfire.

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>.

- 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>

D. Project Best Management Practices (2 of 3)

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, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA,



- 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.
- Residential and commercial development has grown exponentially in recent years. Activities associated with these developments can have detrimental impacts on wildlife and aquatic resources such as habitat fragmentation, loss of available habitats and pollution, especially stormwater pollution. The result of these impacts causes the displacement of species and increases wildlife and human interactions. However, properly planned and sited development activities may allow for economic expansion with minimal negative impacts.
- Where appropriate, particularly adjacent to wetlands and water bodies, drainage plans and construction measures for residential and commercial development should be designed to control erosion and sedimentation, water quality degradation and other negative impacts on adjacent water and wetlands utilizing the best available design research. Developers proposing development activities should contact and work closely with local community development planning entities.
- Developments should be planned where growth is most compatible with natural resources utilizing residential and commercial cluster development methods, maximizing green spaces which can both be beneficial to protect natural resources and provide recreational opportunities for outdoor enthusiasts.
- Developments should be designed and constructed to avoid impact to wetland and stream areas whenever possible and to minimize unavoidable wetland and stream impacts to the maximum extent possible. Aquatic habitats and other sensitive natural areas should be identified in the initial planning stages of the project and incorporated in their natural state into the overall development plan.
- Developments should be designed to maintain the integrity and contiguity of wetland and stream systems and their associated riparian corridors, including the establishment of protective upland buffers around and between undisturbed aquatic systems whenever possible. Projects should be designed to minimize habitat fragmentation, including the construction of a limited number of road and utility crossings through streams and wetlands.

D. Project Best Management Practices (3 of 3)

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, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA,



- The SCDNR recommends that the applicant incorporate vegetated bioswales, catch basins and/or bioretention cells/rain gardens into development plans beyond the regulatory requirements of the Stormwater Permitting requirements to add additional features to aid in capturing and filtering runoff from hardened surfaces. These structures can protect water quality and prevent oil, gas and other pollutants from directly entering nearby waterways. In addition, the SCDNR strongly recommends the use of permeable or porous pavement surfaces when possible. Permeable surfaces allow for rainfall to filter through the soil which aids in flood control and improves water quality.
- The following resources are available from Clemson Extension to assist:
 - <https://hgic.clemson.edu/factsheet/an-introduction-to-bioswales/>
 - <https://hgic.clemson.edu/factsheet/rain-garden-plants-introduction/>
 - <https://hgic.clemson.edu/factsheet/bioretention-cells-a-guide-for-your-residents/>
 - <https://hgic.clemson.edu/factsheet/an-introduction-to-porous-pavement/>
 - <https://hgic.clemson.edu/factsheet/trees-for-stormwater-management/>
- 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.



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, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA,



County	Scientific Name	Common Name	G Rank	S Rank	Federal Protection Status	State Protection Status	Group Type
Horry	<i>Acipenser brevirostrum</i>	Shortnose Sturgeon	G3	S3	LE: Federally Endangered	SE: State Endangered	Zoological
Horry	<i>Acipenser oxyrinchus</i>	Atlantic Sturgeon	G3	S3	LE: Federally Endangered	Not Applicable	Zoological
Horry	<i>Atrytone arogos</i>	Arogos Skipper; Eastern Beard Grass Skipper	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	S3	ARS: At-Risk Species	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	S1S2	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>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	S1S2	Not Applicable	ST: State Threatened	Zoological
Horry	<i>Laterallus jamaicensis</i>	Black Rail	G3	S1	LT: Federally Threatened	Not Applicable	Zoological
Horry	<i>Lepidochelys kempii</i>	Kemp's Ridley Sea Turtle	G1	S1N	LE: Federally Endangered	SE: State Endangered	Zoological
Horry	<i>Mycteria americana</i>	Wood Stork	G4	S2	LT: Federally Threatened	SE: State Endangered	Zoological
Horry	<i>Sternula antillarum</i>	Least Tern	G4	S2	MBTA: Migratory Bird Treaty Act	ST: State Threatened	Zoological
Horry	<i>Trichechus manatus</i>	Florida Manatee	G2G3	S1S2	LT: Federally Threatened	SE: State Endangered	Zoological
Horry	<i>Amaranthus pumilus</i>	Seabeach Amaranth, Dwarf Amaranth	G2	S1	LT: Federally Threatened	Not Applicable	Botanical
Horry	<i>Dionaea muscipula</i>	Venus Flytrap, Meadow Clam, Tippitiwitchet	G2	S1	ARS: At-Risk Species	Not Applicable	Botanical
Horry	<i>Fimbristylis perpusilla</i>	Harper's Fimbr	G2	S1	ARS: At-Risk Species	Not Applicable	Botanical
Horry	<i>Ludwigia ravenii</i>	Raven's Seedbox	G1G2	S1	ARS: At-Risk Species	Not Applicable	Botanical
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>Sporobolus teretifolius</i>	Wireleaf Dropseed	G2	S1	ARS: At-Risk Species	Not Applicable	Botanical

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, HERE, 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.



SC Natural Heritage Species Review Report - Jeffery Vereen - Adrian Sand/Clay Pit

2 messages

Joe Lemeris <LemerisJ@dnr.sc.gov>

Fri, May 5, 2023 at 9:05 AM

To: "jvereen@thebrigmancompany.com" <jvereen@thebrigmancompany.com>

Good morning Jeffery,

Our office of environmental programs has released the below report to you. In addition to what is included on this report, please be aware of the following pertaining to bat species:

- Three species of bats have been known to occur in this project area's county and adjacent counties 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 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 if found, surveys conducted by qualified individuals. SCDNR requests the bat survey protocol be provided to SCDNR to review. Please note if Federal Endangered Species Act Section 7 consultation is required, verification of surveys for Northern long-eared bat are required by the U.S. Fish and Wildlife Service (USFWS); therefore, the USFWS should also review the proposed bat survey protocol. For more information on the northern long-eared bat survey protocol, visit https://www.fws.gov/sites/default/files/documents/USFWS_Range-wide_IBat_%26_NLEB_Survey_Guidelines_2022.03.29.pdf If any of the above species are found on-site, please contact the U.S. Fish & Wildlife Service and SCDNR. If suitable habitat for the above species are found within the project footprint, the SCDNR recommends a clearing moratorium to protect northern long-eared bat during hibernation from January 1st to February 15th and from May 1st to July 31st to protect the pupping season for all three of these bat species.
- To avoid a take of the state-listed Rafinesque's big-eared bat, the SCDNR recommends a survey for maternity roost trees be conducted prior to any clearing activity to avoid and minimize potential impacts. Suitable habitat includes that of black gum (*Nyssa sylvatica*) and water tupelo (*Nyssa aquatic*) stands, bald cypress (*Taxodium distichum*) swamp forests, maritime forests, and hardwood or mixed mature forested bottomlands (Cochran 1999, Hofmann et al. 1999, Lance et al. 2001, Gooding and Langford 2004, Trousdale and Beckett 2005). Trees standing 59 to 82 feet tall with large cavities, defined as 3.6 feet tall by 1.2 feet wide, should be surveyed to determine maternity roost occupancy May 1st to July 31st (Mirowsky 1998, Gooding and Langford 2004, Trousdale and Beckett 2005, Carver and Ashley 2008). In the event maternity colonies are found, an avoidance window for disturbance and destruction of roost trees should be observed from May 1st to July 31st. Please note Rafinesque's big-eared bat maternity colonies will utilize multiple maternity roost trees in an area (Gooding and Langford 2004, Trousdale and Beckett 2005, Johnson and Lacki 2011, Trousdale 2011); therefore, an avoidance window for disturbance and destruction should also be observed from May 1st to July 31st for all large cavity trees (as defined above) found within 1,000 feet of the occupied cavity tree (Johnson et al. 2012). Please note, take of this state listed species is prohibited under S.C. Code of Laws §50-15-30.
- 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 the 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.

Please let us know if you have any questions.

Thanks!
joe



Joseph Lemeris, Jr.

GIS/Data Manager, Natural Heritage Program

South Carolina Department of Natural Resources

Wildlife & Freshwater Fisheries Division

o: 803-734-1396 | m: 843-729-0679 | e: LemerisJ@dnr.sc.gov
[1000 Assembly St, Columbia, SC 29201](#)

Your request for a review of species of concern within and near to your project area has been processed. Please contact speciesreview@dnr.sc.gov if you have any questions related to the content of your report.

You can find the report here using the following link. Please note this report will only be available for download for 48 hours from receipt of this email.

https://schtgis.dnr.sc.gov/server/rest/directories/arcgisjobs/webtools/exportreport_2022_10_gpserver/jb5a47d6b0504488d80759fbc29f6f557/scratch/20230504_112905-horry-county-jeffery-vereen-adrian-sandclay-pit.pdf

Jeff Vereen <jvereen@thebrigmancompany.com>
To: Charles Oates <coates@thebrigmancompany.com>

Fri, May 5, 2023 at 9:13 AM

Chuck, here is SCDNR's response, just add it to the BA, and it's ready for the client
[Quoted text hidden]

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TBC
THE BRIGMAN CO.

Jeffery Vereen

Senior Wetland Ecologist

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