



Protected Species Assessment
Project Connect
Blythewood, Richland County, SC
S&ME Project No. 22610625A

PREPARED FOR:

Thomas and Hutton
1501 Main Street
Columbia, SC 29201

PREPARED BY:

S&ME, Inc.
134 Suber Road
Columbia, SC 29210

May 3, 2023



May 3, 2023

Thomas and Hutton
1501 Main Street
Columbia, South Carolina 29201

Attention: Mr. John Culbreath, PE
culbreath.j@tandh.com

**Protected Species Assessment
Project Connect**

Blythewood, Richland County, South Carolina
S&ME Project No. 22610625A

Dear Mr. Culbreath:

S&ME, Inc. (S&ME) is pleased to submit our Protected Species Assessment for the above-referenced site located in Richland County, South Carolina. This work was performed in general accordance with S&ME Proposal Number 22610625A, dated January 31, 2023, and Work Authorization #2 between Thomas and Hutton and S&ME, dated March 28, 2023.

S&ME appreciates the opportunity to be of service to you by performing this Protected Species Assessment for this project. Please contact us at (803) 561-9024 with questions regarding this report or if you require additional information.

Sincerely,

S&ME, Inc.

A handwritten signature in black ink that reads "Will Trotter".

Will Trotter
Biologist
jtrotter@smeinc.com

A handwritten signature in black ink that reads "Chris Daves".

Chris Daves, P.W.S.
Senior Scientist
cdaves@smeinc.com



Table of Contents

1.0	Project Background.....	1
2.0	Previous Assessments	1
3.0	Site and Habitat Descriptions	2
3.1	Open Fields	2
3.2	Natural Pines with Hardwood Understory	2
3.3	Ruderal Communities.....	3
3.4	Planted Pines.....	3
3.5	Mixed Hardwood Woodland	3
3.6	Cutover Land/Graded Land	4
3.7	Aquatic Features.....	4
4.0	Methodology.....	5
5.0	Federally Protected Species.....	5
5.1	Bald Eagle.....	6
5.2	Red-Cockaded Woodpecker	6
5.3	Canby’s Dropwort.....	7
5.4	Rough-Leaved Loosestrife	7
5.5	Smooth Coneflower.....	8
5.6	Monarch Butterfly	9
5.7	Tricolored Bat.....	10
6.0	Qualifications	10
7.0	Summary and Conclusions	11
8.0	References.....	12

List of Tables

Table 4-1 Federally Protected Flora and Fauna Summary	5
Table 4-2 Site Soils Descriptions	8



**Protected Species Assessment
Project Connect**

Blythewood, Richland County, South Carolina
S&ME Project No. 22610625A

Appendices

Appendix I – Exhibits and Site Photographs

Appendix II – County Species Lists from USFWS and SCDNR

Appendix III – Previous USFWS Letters



1.0 Project Background

This Protected Species Assessment has been conducted to assess the potential for the presence of federally protected species on the site in preparation for Project Connect. The site is being considered for an advanced manufacturing facility in the automotive industry (Scout Motors) along with supporting infrastructure (utilities, interchange, road improvements, and a railroad). This Protected Species Assessment was conducted to support an Individual Permit application that will be submitted for review by the U.S. Army Corps of Engineers (USACE) and the South Carolina Department of Health and Environmental Control (SCDHEC) in mid-2023.

S&ME is requesting the technical assistance of the U.S. Fish and Wildlife Service (USFWS) as to whether site development would likely result in “take” as defined under Section 9 of the Endangered Species Act (ESA). The approximate 2,581-acre site consists of 23 Richland County tax parcel numbers and South Carolina Department of Transportation right-of-way (SCDOT ROW). The site is located east and west of Interstate 77 (I-77), south of Blythewood Road, and west of U.S. Highway 21 (Wilson Boulevard) as shown on the **Exhibits** in **Appendix I**.

2.0 Previous Assessments

2006

2006S&ME performed a Protected Species Assessment on a 466-acre portion of the site, then called Project Y, in 2006 which covered the eastern portion of the current project site. The assessment identified potential suitable habitat for the smooth coneflower within the woodland margins and open areas of the site. The USFWS issued a response letter under FWS Log No. 2006-I-0743, dated August 3, 2006. And stated that the presence of threatened or endangered species within the project area was unlikely.

2015

S&ME performed a Protected Species Assessment on a portion of the site (670 acres), then called the Blythewood Industrial Site, in 2015, which covered a smaller portion of the western area of the site. The assessment identified potential habitat for the red-cockaded woodpecker (foraging only), Canby’s dropwort, Michaux’s sumac, and smooth coneflower. Following site visits, these species were not observed on the site. The USFWS agreed with the “may affect, not likely to adversely affect” determination was applicable for these species. The assessment was submitted to the USFWS for review and comment. USFWS issued a response letter under FWS Log No. 2016-TA-0231, dated February 3, 2016.

2018

S&ME performed a Protected Species Assessment on a portion of the site (657 acres), then called the Blythewood Industrial Site-North, in 2018, which covered a smaller portion of the site west of I-77. During the 2018 assessment the site did not provide suitable habitat for the federally listed species in Richland County, except for Michaux’s sumac (as of 2022, no longer listed in Richland County) and smooth coneflower. However, site visits were conducted during the flowering season for these species and no individuals were observed on the site.



Future development of the site would have “no effect” on the federally listed species in Richland County and the site qualified for use of the Clearance Letter for Species and Habitat Assessments from the USFWS.

2022

S&ME also recently completed Protected Species Assessments on three individual parcels which make up the northeastern corner of the current project boundary. These sites included Sharpe Properties, Fairfield Electric, and Blythewood Lodge 395. Site visits were conducted in August of 2022. These sites did not provide suitable habitat for federally listed species in Richland County, except the smooth coneflower. However, site visits were conducted during the flowering season for smooth coneflower and no individuals were observed on the site. Future development of the site would have “no effect” on the federally listed species in Richland County and the sites qualified for use of the Clearance Letter for Species and Habitat Assessments from the USFWS.

An additional Protected Species Assessment was conducted to support Project Storage, an approximately 443-acre tract that consisted of the northern portion of the Blythewood Industrial Site from Blythewood Road to the southern portion of the powerline easement. Project Storage did not located to Richland County and a Protected Species Report was not finalized. However, the fieldwork was completed in April through September 2022. No protected species were observed during the fieldwork.

3.0 Site and Habitat Descriptions

The site is located in northwestern Richland County within the Sand Hills and Carolina Slate Belt ecoregions of South Carolina. The site consists of multiple habitats and communities as listed below. The properties adjacent to the site consist of wooded land, open land, commercial development, schools, residences, commercial businesses, industrial businesses, and electric cooperatives.

Please refer to **Exhibit 3** and the site photographs in **Appendix I** for depictions of the predominant habitat types located on the site.

3.1 Open Fields

Open fields were located on the western, northern, and southeastern portions of the site (Photographs 1-3). Species observed included Bermuda grass (*Cynodon dactylon*), dog fennel (*Eupatorium capillifolium*), winged sumac (*Rhus copallinum*), lespedeza (*Lespedeza* spp.), blackberry (*Rubus* spp.), old field toadflax (*Nuttallanthus canadensis*), broomsedge (*Andropogon virginicus*), centipede grass (*Eremochloa ophiuroides*), clover (*Trifolium* spp.), and bahiagrass (*Paspalum notatum*). The field margins adjacent to the surrounding forested areas consisted predominately of sweetgum (*Liquidambar styraciflua*), loblolly pine (*Pinus taeda*), and winged sumac.

3.2 Natural Pines with Hardwood Understory

Natural pine stands with hardwood understories were observed on the northern, eastern, and southeastern portions of the site (Photographs 4-6). Loblolly pine and longleaf pine (*P. palustris*) were observed. The pines were typically 50 to 60 feet in height with an eight to 12-inch diameter-at-breast-height (DBH). The pines were approximately 20 to 30 years in age. The understory consisted of hardwoods with varying age classes. The sapling



and shrub layer consisted of turkey oak (*Quercus laevis*), water oak (*Q. nigra*), black gum (*Nyssa sylvatica*), loblolly pine, hawthorn (*Crataegus* spp.), persimmon (*Diospyros virginiana*), sassafras (*Sassafras albidum*), and blueberry (*Vaccinium* spp.). Groundcover species and woody vines included poison oak (*Toxicodendron pubescens*) and muscadine (*Vitis rotundifolia*).

3.3 Ruderal Communities

Ruderal communities were observed within the powerline easement on the western portion of the site and along the ROWs of Community Road, I-77, Farrow Road, Blythewood Road, Northpoint Court, U.S. Highway 21, and Muller Road (Photographs 7-9).

The powerline easement and areas along Community Road appeared to be frequently maintained via mowing and herbicide application. Vegetation along the powerline consisted of saplings and shrubs of sweetgum, loblolly pine, and winged sumac. Herbaceous species mainly consisted of dog fennel, old field toadflax, broomsedge, and goldenrod (*Solidago* spp.).

The ROW along the western edge of Community Road from its intersection with U.S. Highway 21 to its northern terminus with Blythewood Road consisted predominately of maintained powerline easements and grassy areas. Sapling and shrubs of loblolly pine, water oak, southern red oak (*Q. falcata*), persimmon, winged sumac, and sweetgum. Herbaceous species observed along Community Road included bahiagrass, dog fennel, broomsedge, lespedeza, peppervine (*Ampelopsis arborea*), blackberry, Brazilian verbena (*Verbena brasiliensis*), plantain (*Plantago major*), goldenrod, common dandelion (*Taraxacum officinale*), pineweed (*Hypericum gentianoides*), muscadine, and ragweed (*Ambrosia artemisiifolia*).

The ruderal communities observed along the ROWs of other roads within the project area were similar to the species described above.

3.4 Planted Pines

Planted pines were observed on the northwestern and western portions of the site (Photographs 10-12). The pine stands on the site were under a strict prescribed fire management regime and understory growth was minimal. Planted pine stands consisted of loblolly pine of varying age classes. The pine stands on the site averaged between six to 24 inches in DBH, 12 to 30 years in age, and 20 to 60 feet in height. The younger stands (12-15 years) were unthinned. Understory species were minimal due to the fire program on the site. Shrub and herbaceous species observed included sweetgum, black cherry (*Prunus serotina*), water oak, American beautyberry (*Callicarpa americana*), dog fennel, and muscadine.

3.5 Mixed Hardwood Woodland

Areas of mixed hardwood forestland (Photographs 13-15) were observed adjacent to the on-site stream divides. These areas consisted of dense, closed canopies. Dominant canopy species observed included sweetgum, southern red oak, white oak (*Q. alba*), water oak, mockernut hickory (*Carya tomentosa*), tulip poplar (*Liriodendron tulipifera*), sourwood (*Oxydendrum arboreum*), and flowering dogwood (*Cornus florida*). The understory consisted of saplings and shrubs of the canopy dominants. Woody vine and ground cover species included muscadine,



sparkleberry (*Vaccinium arboreum*), blueberry (*V. elliotii*), spotted wintergreen (*Chimaphila maculata*), and bracken fern (*Pteridium aquilinum*).

3.6 Cutover Land/Graded Land

In early 2023, tree removal/logging activities were initiated on the western portion of the site (Photographs 16-19). These areas of the site have been clear-cut and are largely void of canopy cover and groundcover vegetation. A building pad was also constructed in 2021-2022 on the northwestern portion of the site.

3.7 Aquatic Features

The site contained 119 wetlands (Photographs 20-27). Wetlands were classified into three categories: 1) Palustrine Forested (PFO), 2) Palustrine Scrub-Shrub (PSS), and 3) Palustrine Emergent (PEM). Typical wetland types observed across the site included riparian hardwood, headwater, depressional, wetlands.

Dominant canopy species within the on-site wetlands included tulip poplar, sweetgum, water oak, red maple (*Acer rubrum*), and blackgum (*Nyssa biflora*). Understory species included those of the canopy dominants, sweetbay magnolia (*Magnolia virginiana*), American holly (*Ilex opaca*), chokeberry (*Aronia arbutifolia*), and possumhaw (*Viburnum nudum*). Woody vine and groundcover species included laurelleaf greenbrier (*Smilax laurifolia*), common greenbrier (*S. rotundifolia*), giant cane (*Arundinaria gigantea*), royal fern (*Osmunda regalis*), cinnamon fern (*Osmundastrum cinnamomeum*), netted chain fern (*Woodwardia areolata*), and southern lady fern (*Athyrium asplenoides*). Sphagnum moss (*Sphagnum* spp.) was prevalent in multiple wetlands observed on the site.

Dominant species observed in the PSS/PEM wetlands observed on the site included shrubs of sweetgum, red maple, and loblolly pine. Dominant groundcover species included blackberry, woolgrass (*Scirpus cyperinus*), and common rush (*Juncus effusus*).

The site also contained 75 tributaries/stream features (Photographs 28-34) ranging from intermittent to perennial streams. The riparian areas can be characterized by steep side slopes, deeply incised channels, with slow-to-quickly flowing water over sand and gravel beds. Several streams were also observed among wider floodplain systems and exhibited shallower beds and banks. Dominant riparian vegetation along the streams was similar to the vegetation observed within the on-site wetlands and mixed-hardwood forestland.

Twelve (12) ponds (Photographs 35-38) were observed across the western portion of the site. Dominant species observed adjacent to the on-site ponds included sweetgum, loblolly pine, red maple, water oak, tulip poplar, black willow (*Salix nigra*), tag alder (*Alnus serrulata*), common rush, and woolgrass.



4.0 Methodology

S&ME personnel reviewed the South Carolina Department of Natural Resources (SCDNR) and the USFWS websites to determine those species that are currently listed as federally protected (threatened or endangered) in Richland County. The results of this search, including identified protected species and preferred habitat served as the basis of the field review and are presented in **Table 4-1**.

SCDNR maintains a database of elements of occurrence for protected species in the state of South Carolina. A search of this database did not reveal the known presence of federally protected species (occurrences) on or immediately adjacent to the site. Supporting information was researched for the purpose of identifying soil types, vegetative communities, and possible drainage features in the study area. The supporting information reviewed included aerial photography, topographic quadrangle maps, soil survey sheets, land use information, and data from the National Wetlands Inventory.

S&ME Biologists, Chris Daves, P.W.S., Chris Handley, and Will Trotter performed field reviews in February through early May of 2023. Additional site visits were conducted April through September 2022 on the western portions of the site. The information obtained from supporting documentation was integrated with the field review to identify potential areas of preferred habitat of protected species. Portions of the site that matched descriptions of preferred habitat for protected species listed in **Table 4-1** were considered to be potential habitat for the respective protected species. These areas were subsequently field reviewed to confirm the presence/absence of the respective species.

5.0 Federally Protected Species

Descriptions of the species and their respective federal status are identified in **Table 4-1** and in **Appendix II**. The SCDNR and USFWS websites identified the following federally listed species for Richland County:

Table 4-1 Federally Protected Flora and Fauna Summary

Species	Listing	Habitat
Bald Eagle <i>Haliaeetus leucocephalus</i>	BGEPA	Coastlines, rivers, large lakes which provide adequate feeding grounds.
Red-Cockaded Woodpecker <i>Leuconotopicus borealis</i>	E	Open pine stands with minimum age of 60 years; nests in live pines with red-heart disease.
Canby's Dropwort <i>Tiedemannia canbyi</i>	E	Wet pineland ponds, savannas, wet meadows, and around edges of open cypress ponds; prefers habitat with little or no canopy closure.
Rough-Leaved Loosestrife <i>Lysimachia asperulaefolia</i>	E	Sandy moist peat of pine flatwoods, savannas, seep bogs in Sandhills, and pocosins.
Smooth Coneflower <i>Echinacea laevigata</i>	E	Prairie remnants, open woods, cedar barrens, roadsides, clearcuts, dry limestone bluffs, and power line rights-of-way, usually on magnesium and calcium-rich (basic) soils.



Species	Listing	Habitat
Monarch Butterfly <i>Danaus plexippus</i>	C	Fields, roadsides, and open areas with flowering plants. Breed in areas with milkweed; host plant for larva.
Tricolored Bat <i>Perimyotis subflavus</i>	PE	Roosts among leaf clusters of alive or recently dead deciduous trees. Also roosts in summer months in artificial structures (barns and bridges). Winter hibernacula includes caves, abandoned mines, and road culverts.

E = Endangered

C=Candidate for Listing

BGEPA = Bald and Golden Eagle Protection Act

PE = Proposed Endangered

5.1 Bald Eagle

BIOLOGICAL DETERMINATION: NO EFFECT

This large raptor has characteristic adult plumage consisting of a white head and tail with a dark brown body. Juvenile eagles are completely dark brown and do not fully develop the majestic white head and tail until the fifth or sixth year. Adults average about three feet from head to tail, weigh approximately 10 to 12 pounds and have a wingspread that can reach seven feet. Generally, female bald eagles are larger than the males. The typical nest is constructed of large sticks and is lined with soft materials such as pine needles and grasses. The nests are very large, measuring up to six feet across and weighing hundreds of pounds. Nesting and feeding sites are generally in the vicinity of large bodies of open water (coastlines, rivers, large lakes).

There are no coastlines, rivers, or large lakes on or immediately adjacent to the site considered suitable habitat for the bald eagle. Multiple smaller, man-made ponds are located the western portions of the site; however, these ponds are not large enough to sustain bald eagle. No nests were observed on the site. Accordingly, future development of the site is not expected to impact this species.

5.2 Red-Cockaded Woodpecker

BIOLOGICAL DETERMINATION: MAY AFFECT, NOT LIKELY TO ADVERSELY AFFECT

This black and white bird measures approximately seven inches long and has black and white horizontal stripes on its back. The cheeks and underparts are white, and the sides are streaked in black. The cap and stripe on the throat and neck of the bird are black. Male individuals of the species have a small red spot on each side of the black cap and display a red crown patch after the first post-fledgling molt.

The red-cockaded woodpecker's range is closely linked to the distribution of southern pines. Loblolly and longleaf pines that are 60-plus years old are generally selected for nesting sites. However, other species of southern pines are occasionally used for nesting. The woodpecker usually excavates nest cavities in trees infected with a fungus that produces red-heart disease. Preferred nesting sites generally include relatively open, mature pine stands with an undeveloped or low understory layer. Foraging habitat is frequently limited to pine or pine-hardwood stands that are 30 years or older, with a preference for pine trees with a diameter of 10 inches or larger. The USFWS indicates that the maximum foraging range for the red-cockaded woodpecker is approximately one-half mile.



The site did not contain suitable nesting habitat for the red-cockaded woodpecker. The pine stands lacked the proper age to be considered suitable nesting habitat for the red-cockaded woodpecker. A majority of the pine stands on northwestern portion of the site ranged from 12 to 25 years in age, which are too young to support red-cockaded woodpecker foraging habitat.

Some of the older pine stands (Photograph 11) on the southwestern portion of the site could be considered foraging habitat. These areas contained planted pines approximately 10-20 inches in DBH and were approximately 25-30 years in age. These stands contained thinned, opened canopies and minimal ground cover providing potential foraging habitat.

A review of aerial photographs and pine stand observations from accessible roads and trails did not identify pine stands of sufficient age for nesting habitat immediately adjacent to the site. SCDNR had no occurrence records for this species and field surveys did not identify red-cockaded woodpecker nests on the site. Accordingly, future development of the site *"may affect, but is not likely to adversely affect"* this species.

5.3 Canby's Dropwort

BIOLOGICAL DETERMINATION: NO EFFECT

Canby's dropwort is a perennial herb growing to a height of two to four feet. The stems are hollow and erect with slender leaves. The species is aromatic, smelling like dill. The flowers of Canby's dropwort have white petals, pale green sepals, and are five-parted. The leaves are round in cross-section, thin, and divided by partitions. The flowering period is from August through October. The primary habitats of Canby's dropwort are wet pineland ponds and savannas, wet meadows, and around the edges of open cypress ponds. The species prefers habitat with little or no canopy closure. Canby's dropwort prefers soils with a high-water table.

The site does not contain suitable habitat for Canby's dropwort. There are no true wet pineland ponds, savannas, wet meadows, or open cypress ponds on the site. A majority of the canopies of the on-site wetlands were closed, except for three palustrine emergent wetlands observed in the utility ROWs. These wetlands are routinely mowed and maintained. These wetlands were observed in August and September of 2022 and Canby's dropwort was not observed. Accordingly, the future development of the site is not expected to impact this species.

5.4 Rough-Leaved Loosestrife

BIOLOGICAL DETERMINATION: NO EFFECT

Rough-leaved loosestrife is a perennial, colonial herb growing to heights of one to two feet. Leaf formations are in whorls of three to four leaves. Its large, showy, yellow flowers are found on the terminal end of the stems. This plant flowers from May to June and fruits from August to October. Habitat includes the grass-shrub transition areas between longleaf pine and pond pine pocosin wetlands. It prefers moist or saturated sands and shallow organic soils. Other habitats include savannas, seep bogs, and pocosins in the Sand Hills. This plant fares well where periodic fires are prevalent. Abundant sunlight and low vegetation are important to its survival.

The site does not contain suitable habitat for the rough-leaved loosestrife. No pure longleaf pine stands, savannas, seep bogs, or pond pine pocosin wetlands were observed on the site. A majority of the on-site wetlands



consisted of a closed canopies with little sunlight reaching the wetland floor. Accordingly, future development of the site is not expected to impact this species.

5.5 Smooth Coneflower

BIOLOGICAL DETERMINATION: MAY AFFECT, NOT LIKELY TO ADVERSELY AFFECT

Smooth coneflower is a perennial herb that grows up to five feet tall from a vertical rootstock. The stems are smooth with few leaves. The largest leaves are the basal leaves (eight inches long, three inches wide), which are elliptical to broadly lanceolate and are smooth to slightly rough. Mid-stem leaves are smaller than the basal leaves. The rays (two to three inches long) of the flowers are light pink to purplish, usually drooping. Flower heads are usually solitary. Flowering occurs from May through late July. Fruiting occurs through October. The USFWS lists the optimal survey window for this species late May through October. The habitat consists of prairie remnants, open woods, cedar barrens, roadsides, clearcuts, dry limestone bluffs, and power line rights-of-way. This species is usually found in magnesium and calcium-rich, basic or circumneutral soils over mafic or calcareous rocks. In South Carolina, soils over diabase and marble are ideal. Abundant sunlight and little competition in the herbaceous layer characterize optimal sites.

S&ME reviewed the U.S. Department of Agriculture – Natural Resources Conversation Service (USDA-NRCS) Web Soil Survey to determine the soil series present on the site. The soil series located on the site consisted primarily of acidic soils with pH values ranging from 4.5 to 6.5, which is not preferred habitat for this species due to the lack of calcium and magnesium. Smooth coneflower prefers basic soils underlined by mafic or calcareous rocks. Rock outcropping was not observed in the upland areas of the site.

Table 4-2 Site Soils Descriptions

Soil Series	pH Level
BaB – Blanton Sand (0-6% slopes)	4.5-6.0
CH – Chewacla Soils (nearly level)	5.1-6.5
Co- Congaree Loam (nearly level)	5.1-7.3
DoA – Dothan Loamy Sand (0-2% slopes)	4.5-5.5
FuA – Fuquay Sand (0-2% slopes)	4.5-5.5
FuB – Fuquay Sand (0-2% slopes)	4.5-5.5
GeB – Georgeville Silt Loam (2-6% slopes)	4.5-6.0
HeB – Herndon Silt Loam (2-6% slopes)	3.6-6.5
HeC – Herdon Silt Loam (6-10% slopes)	3.6-6.5
Jo – Johnston Loam (nearly level)	4.5-5.5
LaB – Lakeland Sand (2-6% slopes)	4.5-6.0
LaD – Lakeland Sand (10-15% slopes)	4.5-6.0
NaE – Nanford Silt Loam (10-30% slopes)	4.5-5.5
PeB – Pelion Loamy Sand (2-6% slopes)	3.6-6.5



Soil Series	pH Level
PeD – Pelion Loamy Sand (6-15% slopes)	3.6-6.5
StA – State Sandy Loam (0-2% slopes)	4.5-6.0
TrB – Troup Sand (0-6% slopes)	4.5-5.5

The site contains suitable habitat for the smooth coneflower along the utility easements, roadside ROWs, and woodland margins located on the site. The on-site soils have pH values ranging from 3.6-6.5 (acidic) which are not rich in calcium or magnesium, and therefore are not favorable for this species. SCDNR had no occurrence records for this species in the vicinity of the site. While smooth coneflower was not observed on the northwestern portion of the site in 2022 during the flowering period and the overall site soils are not conducive, potential habitat is present within utility easements, roadside ROWs, and woodland margins.

Additional site visits will be conducted during the flowering season (late May-June) to confirm that no individuals of this species are present in these areas. Accordingly, future development of the site “*may affect, but is not likely to adversely affect*” this species.

5.6 Monarch Butterfly

BIOLOGICAL DETERMINATION: NOT APPLICABLE FOR CANDIDATE SPECIES

The monarch butterfly is a bright orange insect with scattered white dots and black vein-like markings. The monarch butterfly’s scientific name, *Danaus plexippus*, translated in Greek means “sleepy transformation” in reference to the species hibernation and metamorphosis. The monarch butterfly is also one of the few insect species that migrate. Monarch butterflies fly up to 2,500 miles from their breeding grounds in the United States and Canada to their overwintering spots in central Mexico.

Milkweed (*Asclepias* sp.) plays an essential role in monarch butterfly species survival. This flowering plant is the only food source for monarch butterfly larva. Monarch caterpillars gain toxicity from eating the plant, and these toxins are stored in their bodies making them poisonous to predators. Monarch butterflies maintain this toxicity into adulthood. Major threats to the monarch butterfly are habitat loss and climate change. Pesticide use also contributes to the decline of monarch butterflies.

Monarch butterfly habitat includes fields, roadsides, and other open areas. Monarch butterflies require flowering plants within these habitats to feed on their nectar. Monarch butterflies breed in areas with milkweed, the host plant for their larva. As a candidate species, there is no federal protection afforded for the monarch butterfly. However, the USFWS appreciates its inclusion into assessments.

A biological determination for the monarch butterfly is not applicable to the proposed project as the monarch butterfly is a candidate species and not federally protected.



5.7 Tricolored Bat

BIOLOGICAL DETERMINATION: NOT APPLICABLE TO PROPOSED SPECIES

The tricolored bat is a small bat species reaching between two and three inches in length. The tricolored bat is named after the coloration of each strand of hair, which is dark at the base, blends to yellow midshaft, and ends in a brown tip. The species' current range is eastern North America, though the tricolored bat is in great decline from its historic range and population numbers.

The tricolored bat is a generalist feeder that preys on insects using echolocation. The tricolored bat hibernates in caves or abandoned mines. This species is known to hibernate in man-made structures such as roadside culverts. During spring, summer, and fall seasons the tricolored bat roosts in trees and leaf clusters in both live and dead trees. The tricolored bat tends to hibernate alone, and roost singly, though has been known to share hibernacula with other bat species.

Owls, raccoons, snakes, hawks, and feral cats, among other species, are predators of the tricolored bat. Threats to the tricolored bat include habitat degradation, human disturbance of hibernacula, and a lack of knowledge of their ecology needed to inform management plans.

The SCDNR Natural Heritage Response Letter did not identify known hibernation sites and/or roost trees within one mile of the project area. Potential suitable summer roosting habitat for the tricolored bat exists within the mixed hardwoods, pine-mixed hardwoods, and planted pines as trees within these habitats exhibited loose and peeling bark capable of providing roosting habitat, although tree cutting activities began in early 2023 on the western portion of the site outside of the stream and wetland areas. Additional potential habitat included several large culverts/pipes under I-77/Community Road (Photographs 39-40).

Since the tricolored bat is not federally protected at this time, a biological determination is not applicable to this species. However, a final decision on the listing of this species may come as soon as September 2023; if the tricolored bat becomes listed as an endangered species, further consultation may be required as the removal of trees and/or disturbance of culverts/pipes may affect this species. Please note that the USFWS currently recommends that no tree removal occur during the pup season (April 15 to July 31) of this species.

6.0 Qualifications

The field survey was overseen by Chris Daves of S&ME. Mr. Daves is a Senior Scientist with over 22 years of experience in environmental consulting. Mr. Daves is proficient in conducting wetland delineations environmental permitting activities, and habitat assessments, including protected species surveys. He is a Professional Wetland Scientist (PWS) and holds a B.S. degree in Biology from Wofford College and a Master's degree in Earth & Environmental Resources Management from the University of South Carolina.

Mr. Handley holds a B.S. degree in Forest Resource Management and a Master's degree in Forest Resources (GIS Emphasis) from Clemson University. Mr. Handley has over 10 years of experience in environmental consulting and GIS mapping and is proficient in conducting wetland delineations and habitat assessments, including protected species surveys.



Mr. Trotter holds a B.S. degree in Environmental Science from Wofford College. Mr. Trotter has three years of experience in environmental consulting and is proficient in conducting wetlands delineations and habitat assessments, including protected species surveys.

7.0 Summary and Conclusions

Based on the literature review, habitat assessment, and pedestrian field review of the site, the following conclusions are given regarding federally listed species in Richland County:

- ◆ The site does not provide suitable habitat for the bald eagle, Canby's dropwort, and rough-leaved loosestrife. Our opinion is that proposed development of the site will have "no effect" on these species.
- ◆ Potential foraging habitat for the red-cockaded woodpecker was observed on the southwestern portion of the site. The planted pine stands observed were approximately 10-20 inches in DBH and were approximately 25-30 years in age. These stands contained thinned, opened canopies and minimal ground cover. Field surveys were conducted for the red-cockaded woodpecker and no individuals were observed. Therefore, at this time, development of the site "*may affect, but is not likely to adversely affect*" this species.
- ◆ Potential habitat for the smooth coneflower was observed within the utility easements, roadside ROWs, open fields, and woodland margins located on various portions of the site. Additional field visits will be conducted during the flowering period to determine the presence/absence of this species within the project area. At this time, development of the site "*may affect, but is not likely to adversely affect*" this species.
- ◆ Potential habitat for the monarch butterfly was observed within the open fields, roadside ROWs, and other open areas of the site. However, a biological determination for the monarch butterfly is not applicable to the proposed project as the monarch butterfly is a candidate species.
- ◆ Potential summer roosting habitat for the tricolored bat was observed within the planted pines, mixed hardwoods, and other forested areas of the site. Additional habitat was also observed within several culverts/pipes located under I-77 and Community Road. Since the tricolored bat is not federally protected at this time, a biological determination is not applicable to this species. However, a final decision on the listing of this species may come as soon as September 2023; if the tricolored bat becomes listed as an endangered species, further consultation may be required as the removal of trees and/or disturbance of culverts/pipes may affect this species.

This Protected Species Report will be included as part of an Individual Permit application that will be submitted USACE and SCDHEC. Responses to future USFWS comments will be conducted as needed.



8.0 References

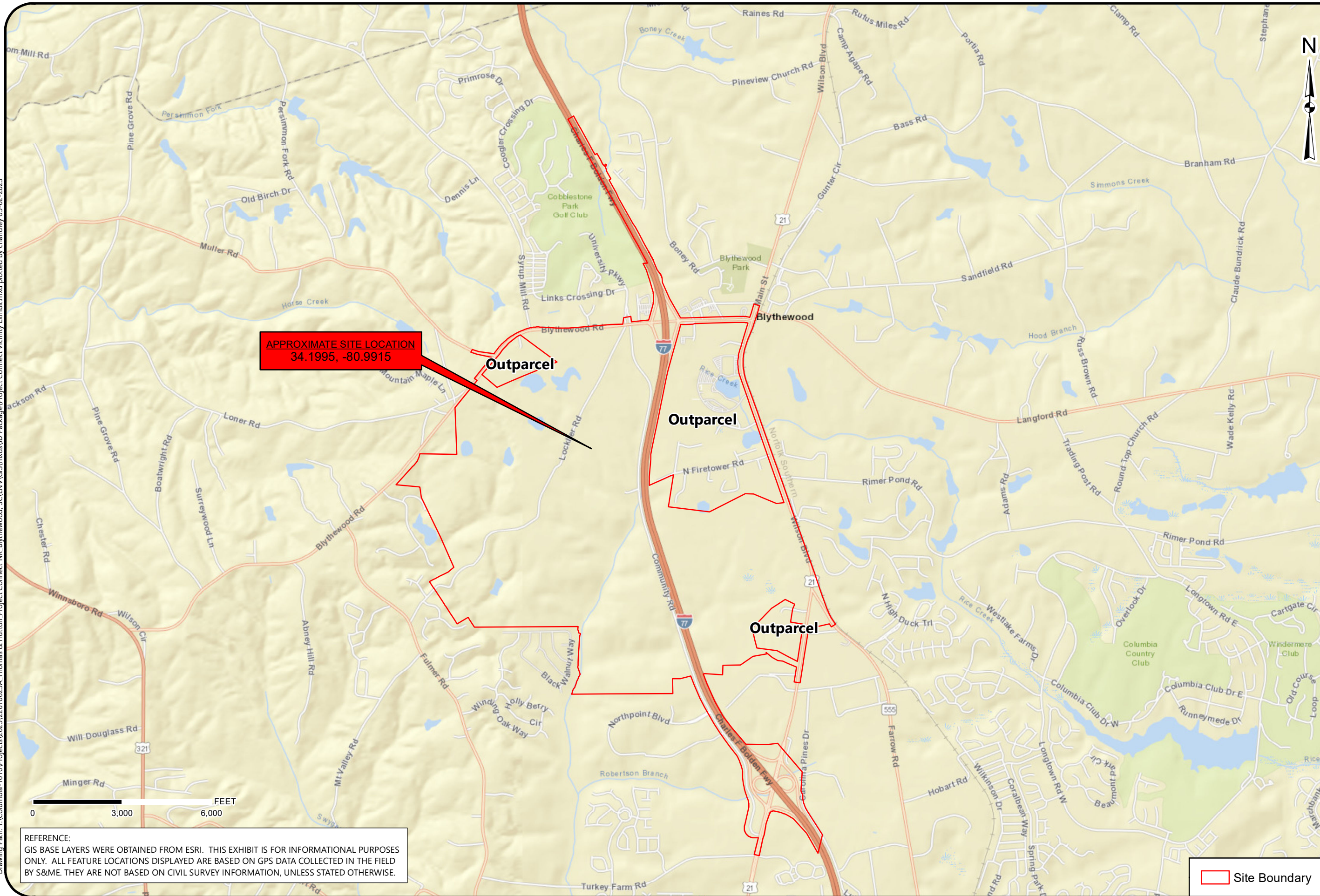
The following sources were referenced during the course of this assessment:

- ◆ S&ME – Protected Species Assessment for Project Y, dated June 16, 2006.
- ◆ S&ME – Protected Species Assessment for Blythewood Industrial Site, dated December 31, 2015.
- ◆ S&ME – Protected Species Assessment for Blythewood Industrial Site-North, dated July 23, 2018.
- ◆ S&ME – Protected Species Assessments for 3 Additional Parcels to the Blythewood Industrial Site (Sharpe Properties, LLC/Fairfield Electric/Blythewood Lodge 395), dated August 10, 2022.
- ◆ SCDNR. Natural Heritage Program: <https://schtportal.dnr.sc.gov/portal/apps/sites/#/natural-heritage-program>.
- ◆ SCDNR. Natural Heritage Program. Response Letter dated April 6, 2023.
- ◆ SCDNR. Rare, Threatened, and Endangered Species Inventory: <https://experience.arcgis.com/experience/af61ba156d054cc7b3e27d09a0c35c0f>.
- ◆ SCDNR: Bald Eagle Locations: <https://scdnr.maps.arcgis.com/apps/opsdashboard/index.html#/e202ad118e5f4d42a15d12bc985b9e33?species=Haliaeetus%20leucocephalus>.
- ◆ U.S. Department of Agriculture – National Resources Conservation Service Web Soil Survey. <http://websoilsurvey.nrcs.usda.gov/app/>.
- ◆ USFWS. Information for Planning and Consultation (IPaC): <https://ecos.fws.gov/ipac/>.
- ◆ USFWS. South Carolina Ecological Services Field Office. <https://www.fws.gov/southeast/charleston/project-planning/>.
- ◆ USFWS. South Carolina List of At Risk, Candidate, Endangered, and Threatened Species by County. https://www.fws.gov/sites/default/files/documents/SouthCarolina_County_by_County_List.pdf.

Appendices

Appendix I – Exhibits and Site Photographs

Drawing Path: T:\Columbia-1610\Projects\2023\22610625A_Thomas & Hutton_Project Connect_NR_Blythewood_SCIENV\GIS\mxd\VD Package\Project Connect_Vicinity Exhibit.mxd plotted by chandley 05-02-2023



APPROXIMATE SITE LOCATION
34.1995, -80.9915

Outparcel

Outparcel

Outparcel

Site Boundary



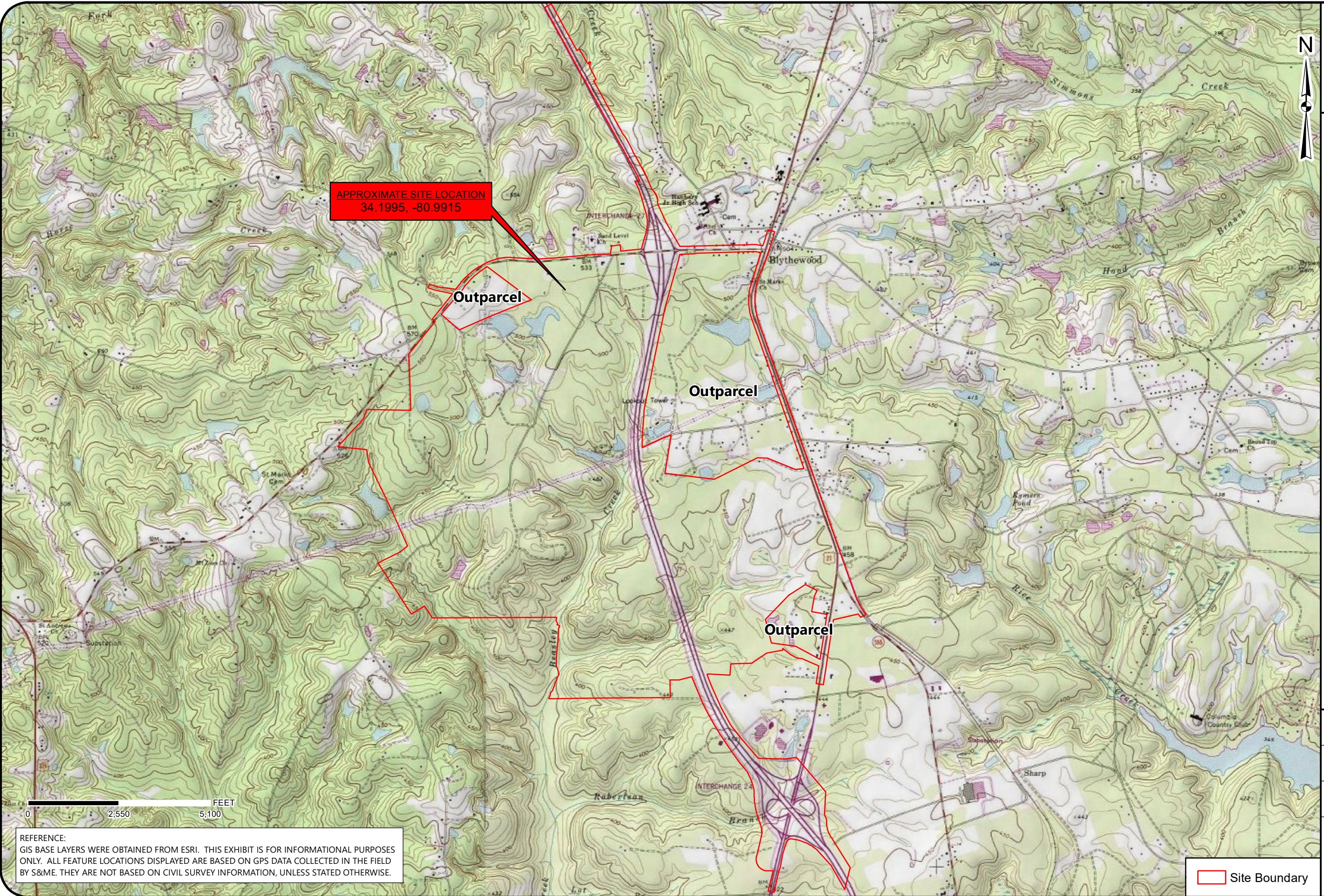
Vicinity Exhibit

Project Connect +/- 2,581 Acres
Blythewood, Richland County, South Carolina
Source: World Street Map

SCALE:
1" = 3,000'
REVISION DATE:
5-2-23
PROJECT NUMBER
22610625A
EXHIBIT NO.

REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM ESRI. THIS EXHIBIT IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE BASED ON GPS DATA COLLECTED IN THE FIELD BY S&M. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Drawing Path: T:\Columbia-1610\Projects\2023\22610625A_Thomas & Hutton_Project Connect_NR_Blythewood_SCIENV\GIS\mxd\Package\Project Connect Topo Exhibit.mxd plotted by chandley 05-02-2023



APPROXIMATE SITE LOCATION
34.1995, -80.9915

Outparcel

Outparcel

Outparcel



Topographic Exhibit

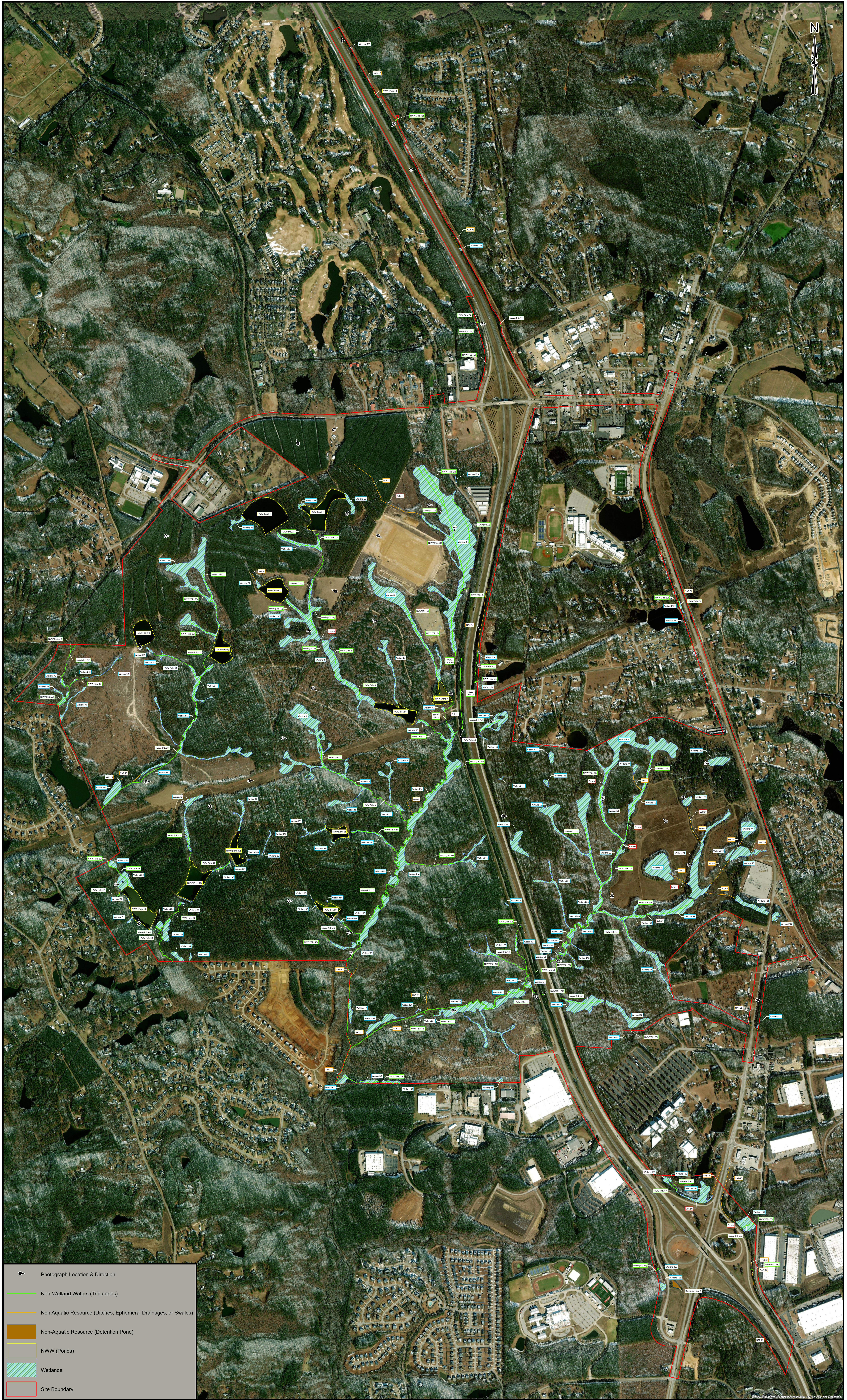
Project Connect +/- 2,581 Acres
Blythewood, Richland County, South Carolina
Source: USGS 7.5-Minute Topo Quads Blythewood and Irmo NE, SC 1971 (Revised 1990)

0 2,550 5,100 FEET

REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM ESRI. THIS EXHIBIT IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE BASED ON GPS DATA COLLECTED IN THE FIELD BY S&M.E. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Site Boundary

SCALE:
1" = 2,500'
REVISION DATE:
5-2-23
PROJECT NUMBER
22610625A
EXHIBIT NO.



- Photograph Location & Direction
- Non-Wetland Waters (Tributaries)
- Non-Aquatic Resource (Ditches, Ephemeral Drainages, or Swales)
- Non-Aquatic Resource (Detention Pond)
- NWW (Ponds)
- Wetlands
- Site Boundary

NOTE: Wetland Delineation completed by S&ME, Inc. 2015, 2018, 2022, and 2023.

AERIAL EXHIBIT

**Project Connect +/- 2,581 Acres
Blythewood, Richland County, South Carolina
World Imagery 2022**

REFERENCE
GIS BASE LAYERS WERE OBTAINED FROM ESRI. THIS EXHIBIT IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE FIELD VERIFIED BY S&ME USING SUB-METER GPS. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

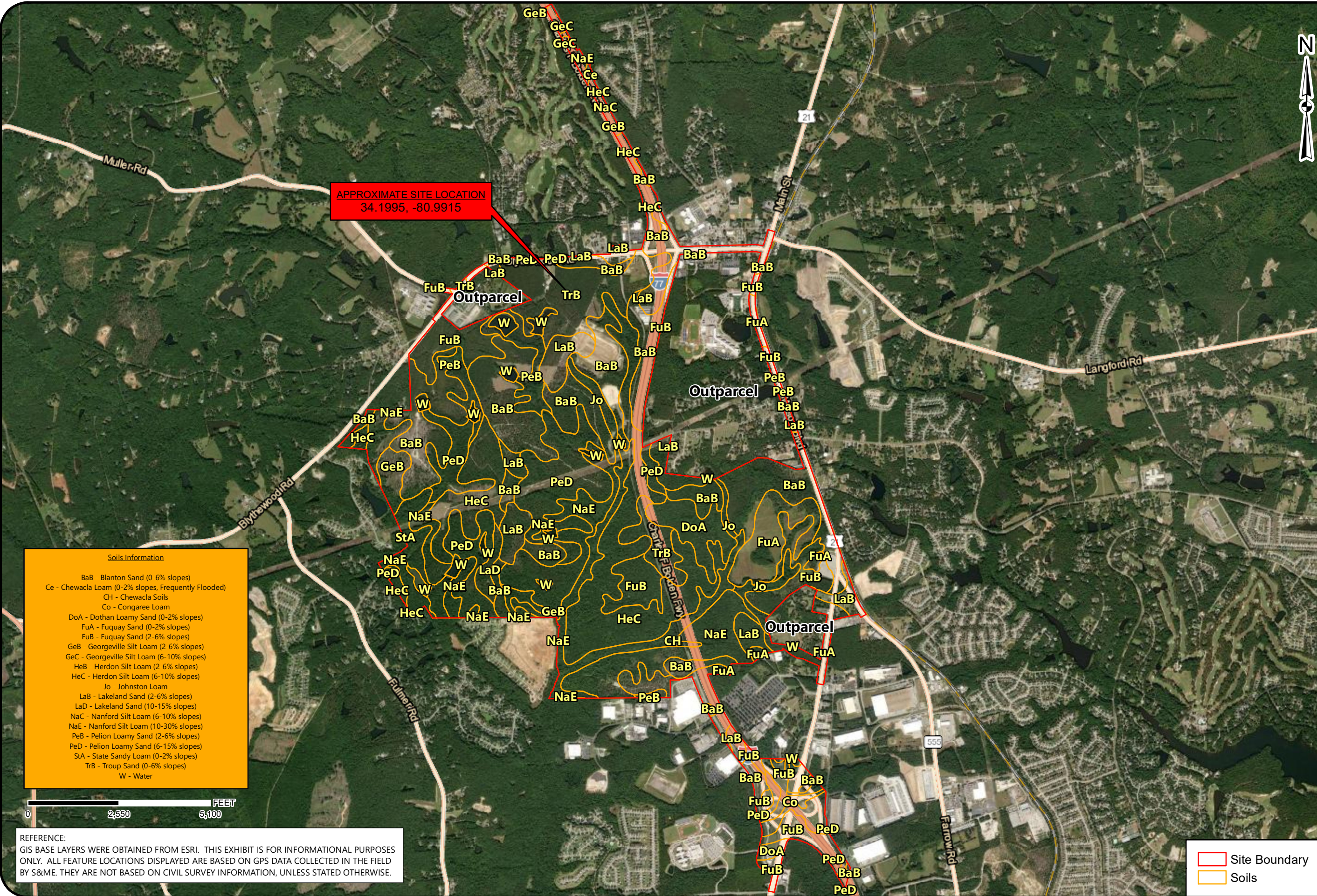
PROJECT NUMBER	
22610625A	
DRAWING NUMBER	SCALE
3	1 inch = 450 feet



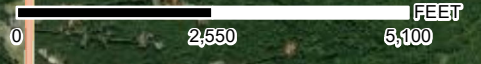
NO.	DATE	DESCRIPTION	BY

134 Suber Road
Columbia, SC 29210
(803) 561-9024

Drawing Path: T:\Columbia - 1610\Projects\2023\22610625A_Thomas & Hutton_Project Connect_NR_Blythewood_SCIENV\GIS\mxd\JD_Package\Project Connect Soils Exhibit.mxd plotted by chandley 05-02-2023



Soils Information	
BaB - Blanton Sand (0-6% slopes)	
Ce - Chewacla Loam (0-2% slopes, Frequently Flooded)	
CH - Chewacla Soils	
Co - Congaree Loam	
DoA - Dothan Loamy Sand (0-2% slopes)	
FuA - Fuquay Sand (0-2% slopes)	
FuB - Fuquay Sand (2-6% slopes)	
GeB - Georgeville Silt Loam (2-6% slopes)	
GeC - Georgeville Silt Loam (6-10% slopes)	
HeB - Herdon Silt Loam (2-6% slopes)	
HeC - Herdon Silt Loam (6-10% slopes)	
Jo - Johnston Loam	
LaB - Lakeland Sand (2-6% slopes)	
LaD - Lakeland Sand (10-15% slopes)	
NaC - Nanford Silt Loam (6-10% slopes)	
NaE - Nanford Silt Loam (10-30% slopes)	
PeB - Pelion Loamy Sand (2-6% slopes)	
PeD - Pelion Loamy Sand (6-15% slopes)	
StA - State Sandy Loam (0-2% slopes)	
TrB - Troup Sand (0-6% slopes)	
W - Water	



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM ESRI. THIS EXHIBIT IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE BASED ON GPS DATA COLLECTED IN THE FIELD BY S&M. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Site Boundary (red outline)
Soils (yellow outline)

Soils Exhibit

Project Connect +/- 2,581 Acres
Blythewood, Richland County, South Carolina
Source: World Imagery 2022 & NRCS

SCALE:
1" = 2,500'
REVISION DATE:
5-2-23
PROJECT NUMBER
22610625A
EXHIBIT NO.



1 Open field on the southeastern portion of the site.



2 Open field on the western portion of the site.



3 Open field located on the northern portion of the site.



4 Natural pine stand located adjacent to I-77 on the extreme northern portion of the site.





5 Natural pine stand located on the eastern portion of the site, adjacent to I-77.



6 Natural pine stand located on the southeastern portion of the site, adjacent to Wilson Blvd.



7 Ruderal community located on the extreme northern portion of the site, adjacent to I-77.



8 Ruderal community located on the western portion of the site, within power line easement.





9 Ruderal community located along field edge on the eastern portion of the site.



10 Planted pines located on the northern portion of the site.



11 Planted pines located on the southwestern portion of the site.



12 Planted pines located on the western portion of the site.





13 Mixed hardwood forestland located on the northwestern portion of the site.



14 Mixed hardwood forestland located on the west-central portion of the site.



15 Mixed hardwood forestland located on the southwestern portion of the site.



16 Cutover forestland located on the west-central portion of the site, north of the powerline easement.





17 Cutover forestland located on the northwestern portion of the site.



18 Cutover forestland (graded and stumped) located on the north-central portion of the site, east of Locklier Road.



19 Graded building pad located on the northwestern portion of the site, west of I-77.



20 Forested wetland located on the northwestern portion of the site.





21 Forested wetland located on the northwestern portion of the site.



22 Forested wetland located on the eastern portion of the site, adjacent to Wilson Blvd.



23 Forested wetland located on the eastern portion of the site.



24 Forested wetland located on the southwestern portion of the site.





25 Scrub-shrub wetland located on the southern portion of the site.



26 Scrub-shrub wetland located on the northeastern portion of the site.



27 Herbaceous wetland located on the western portion of the site, within powerline easement.



28 Beasley Creek located on the southern portion of the site.





29 Seasonal/intermittent tributary located on the southern portion of the site, west of Community Road.



30 Perennial tributary located on the northern portion of the site, west of Community Road.



31 Seasonal/intermittent tributary located on the southwestern portion of the site.



32 Perennial tributary located on the eastern portion of the site.





33 Perennial tributary located on the southeastern portion of the site.



34 Seasonal/intermittent tributary located on the eastern portion of the site.



35 Pond located on the western portion of the site.



36 Pond located on the southwestern portion of the site.





37 Pond located on the southwestern portion of the site.



38 Pond located on the northern portion of the site.



39 Potential Tri-colored bat habitat (culvert) under I-77 on the northern portion of the site.



40 Potential Tri-colored bat habitat (box culvert) under I-77 (Center Creek) on the northern portion of the site.



Appendix II – County Species Lists from USFWS and SCDNR



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: 2023-0064885
Project Name: Project Connect

April 05, 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 ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

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

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

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

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/birds/policies-and-regulations.php>.

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/birds/bird-enthusiasts/threats-to-birds.php>.

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/birds/policies-and-regulations/executive-orders/e0-13186.php>.

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
 - 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: 2023-0064885
Project Name: Project Connect
Project Type: Commercial Development
Project Description: Blythewood, Richland Co., SC. Due diligence.
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@34.1913026,-80.98731328245601,14z>



Counties: Richland County, South Carolina

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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
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
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

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
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
Rough-leaved Loosestrife <i>Lysimachia asperulaefolia</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2747	Endangered
Smooth Coneflower <i>Echinacea laevigata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3473	Threatened

CRITICAL HABITATS

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

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.

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 habitats 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)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\) list](#) or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

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
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Sep 1 to Jul 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrastomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Kentucky Warbler <i>Oporornis formosus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	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	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee



Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- 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>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
 2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
 3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).
-

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

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

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

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

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

IPAC USER CONTACT INFORMATION

Agency: S&ME

Name: Will Trotter

Address: 134 Suber Road

City: Columbia

State: SC

Zip: 29210

Email: jtrotter@smeinc.com

Phone: 8035619024



South Carolina Department of Natural Resources

Robert H. Boyles, Jr.
Director

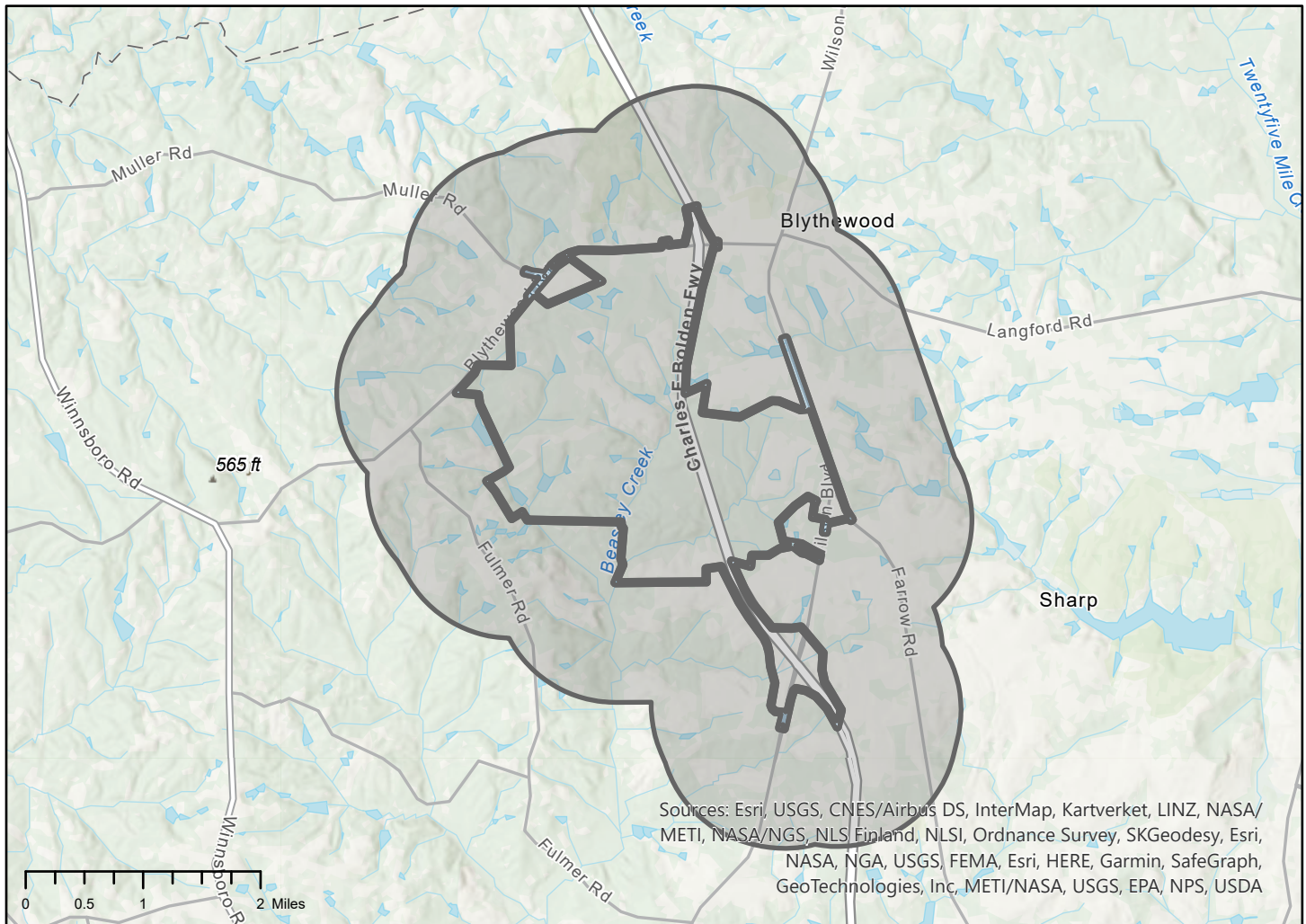
Emily C. Cope
Deputy Director for Wildlife and Freshwater Fisheries

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

Requested on Wednesday, April 5, 2023 by Chris Handley.

Re: Request for Threatened and Endangered Species Consultation
S&ME - Project Connect - Development (Commercial/Residential) - Richland 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 Richland County, South Carolina. The following map depicts the project area and a 1 mile buffer surrounding:



Live Life Outdoors





South Carolina Department of Natural Resources

Robert H. Boyles, Jr.
Director

Emily C. Cope
Deputy Director for 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 - 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,

A handwritten signature in black ink, appearing to read "Joseph Lemeris, Jr.", is written over a light blue horizontal line.

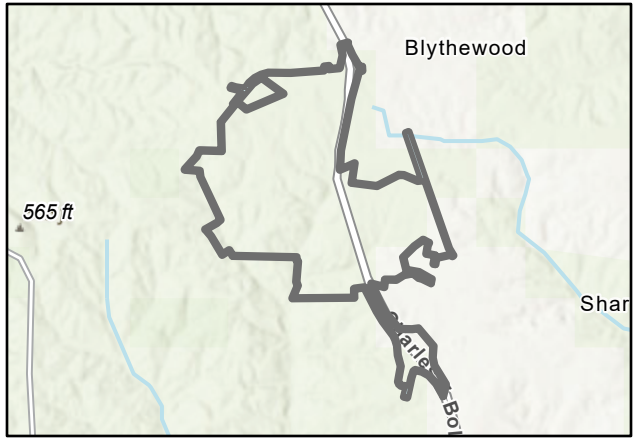
Joseph Lemeris, Jr.
Heritage Trust Program
SC Department of Natural Resources

Live Life Outdoors



A. Project Area - Species Report

There are 0 tracked species records found within the project footprint. 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, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, Esri, NASA, NGA, USGS

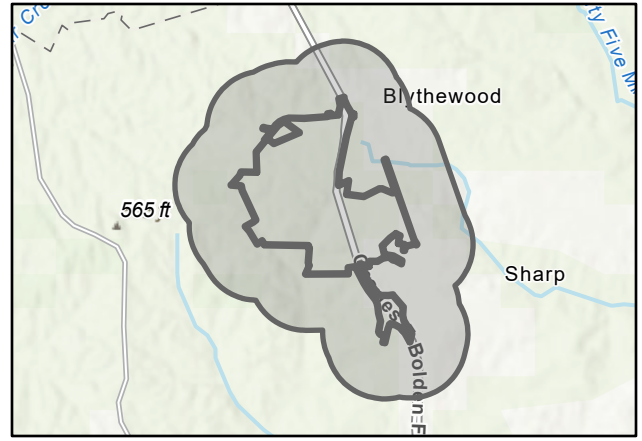
No records for species of concern are found within the project area

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, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, Esri, NASA, NGA, USGS



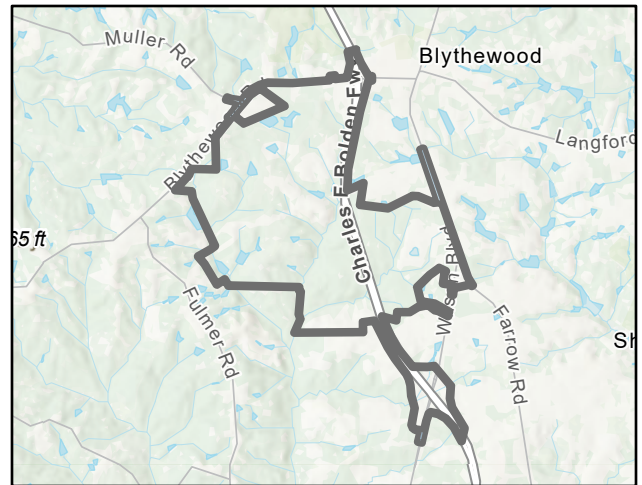
Common Name	Scientific Name	Federal Protection Status	State Protection Status	SWAP Priority	Last Obs. Date	Type
Northern Pinesnake	<i>Pituophis melanoleucus melanoleucus</i>	Not Applicable	Not Applicable	Not Applicable	2019-05-31	Zoological

C. Species Best Management Practices (1 of 1)

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



Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SK Geodesy, Esri, NASA, NGA, USGS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



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.

Related to American alligator (3 of 3):

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

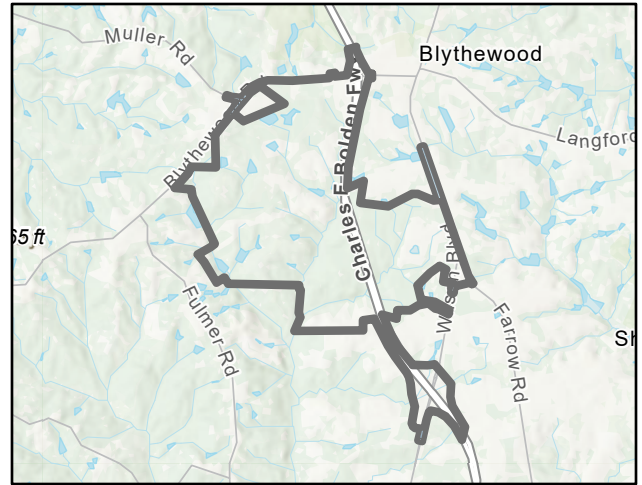
- Retention ponds, lagoons and other water features should be designed to limit the occurrence of alligator basking adjacent to homes and walkways. As alligators are more likely to bask on shallow slopes, this can be achieved by construction of shallow bank slopes away from the homes and steeper bank 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, SK Geodesy, Esri, NASA, NGA, USGS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



Our records indicate one or more parcels within your project area may be associated with a conservation easement. We recommend you inquire with the appropriate County to receive a copy of the recorded deed and plat before moving forward with any alterations to the project site.

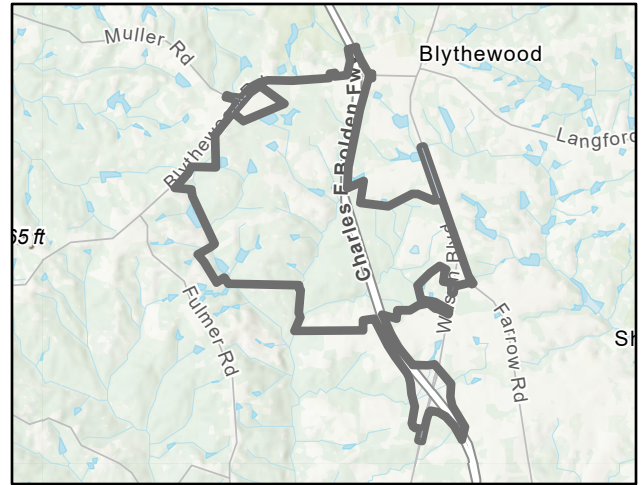
- All necessary measures must be taken to prevent oil, tar, trash and other pollutants from entering the adjacent offsite areas/wetlands/ water.
- Once the project is initiated, it must be carried to completion in an expeditious manner to minimize the period of disturbance to the environment.
- Upon 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>
- 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.

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, NASA, NGA, USGS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



- Review of available data, National Hydrography Dataset, indicates that streams 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 waters 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 or a State Navigable Waters permit may also be required from the SC Department of Health & Environmental Control. For more information, please visit the following websites:
 - <https://www.scdhec.gov/environment/water-quality/water-quality-certification-section-401-clean-water-act>
 - <https://www.scdhec.gov/environment/water-quality/navigable-waters>
- Excavation/Construction activities must not occur during fish spawning season from March through June due to its negative impacts on eggs and reproduction activities.
- 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.

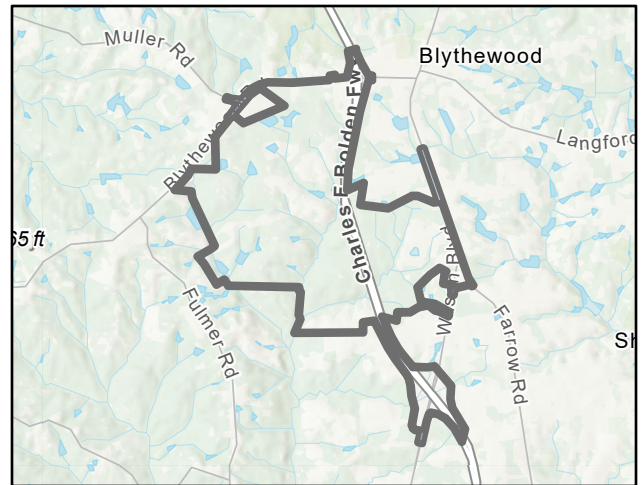
Your project area includes a FEMA special flood hazard area and may require a permit from the County National Floodplain Insurance Program Manager before impacts occur to aquatic resources and the associated floodplains on site. Please refer to <https://www.dnr.sc.gov/water/flood/documents/nfipadmindirectory.pdf>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

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, SK Geodesy, Esri, NASA, NGA, USGS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

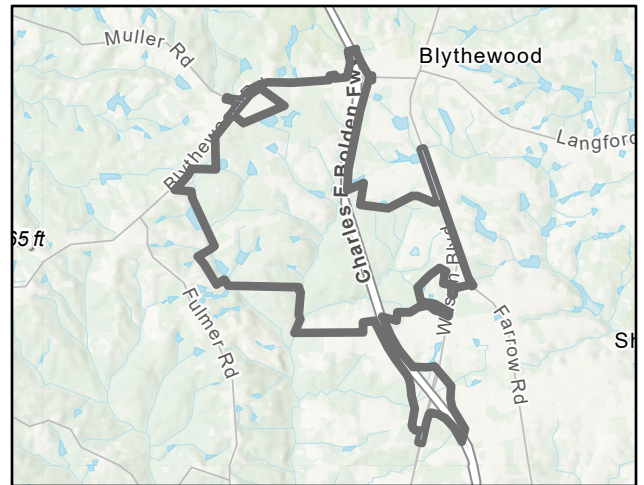


- Residential and commercial development has grown exponentially in recent years. Activities associated with these developments can have detrimental impacts on wildlife and aquatic resources such as habitat fragmentation, loss of available habitats and pollution, especially stormwater pollution. The 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.
- 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/>

E. 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, NASA, NGA, USGS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



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.

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) No need to sign in. However, you will need to provide the app with our Heritage Trust GIS portal web address. You will only need to do this once: (this is a known bug with ESRI's software, and future releases of the form should not require the below steps. Bear with us in the meantime!).
 - a. Tap 'Sign in'
 - b. Tap the settings (gear symbol) in the upper right corner
 - c. Tap 'Add Portal'
 - d. After the 'https://', type schtportal.dnr.sc.gov/portal
 - e. Tap 'Add Portal'
 - f. Tap the back-arrow icon (upper left corner) twice to return to the main sign in page.
- 3) 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.'
- 4) 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.



Appendix III – Previous USFWS Letters



United States Department of the Interior

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

August 3, 2006

Mr. Chris Daves
S&ME
134 Suber Road
Columbia, SC 29210

Re: 466 Acre Site, S&ME No. 1614-06-173
Richland County, SC
FWS Log No. 2006-I-0743

Dear Mr. Daves:

The U.S. Fish and Wildlife Service (Service) has reviewed your July 07, 2006, letter and the endangered and threatened species survey for the above-referenced project and offers the following comments. The survey area is located west of U.S. Highway 21 and east of Interstate 77 in Richland County, SC. These comments are provided in accordance with the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667e), and section 7 of the Endangered Species Act (Act), as amended (16 U.S.C. 1531-1543).

Based on a review of our records and your description of the site, we believe it is unlikely that any federally endangered or threatened species occur there. However, as stated in the Act various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation. We may prevent the listing of future endangered or threatened species by minimizing development and practicing conservation measures when developing. The Service would like to offer the following comments in regards to development on the 466-acre tract to reduce impacts to fish and wildlife resources:

1. Measures to avoid or minimize impacts to sensitive resources, including wetlands, should be implemented during construction. Deliberate discharge of fill material must be avoided where possible and minimized when unavoidable. Where impacts to wetlands are unavoidable, we recommend mitigation for the losses. In addition to providing wildlife habitat, wetland areas perform the important functions of flood control and water quality protection. Disturbed wetland areas should be returned to their original soils and contours. Plant communities should be reestablished that would result in wetland plant community succession into habitat of equal or greater value than the habitat that was destroyed. Temporarily disturbed wetlands should be reseeded with annual small grains appropriate for the season (e.g., oat, millet,

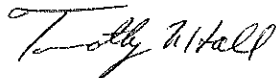
rye, wheat, or ryegrass) and should be allowed to revert to natural wetland vegetation. The crossing of wetlands and streams should be minimized, located at narrow areas, and made perpendicular to the stream. The U. S. Corps of Engineers should be contacted to assist you in determining if wetlands are present or if a permit is required for this activity.

2. In addition to the protection of riparian buffers, we strongly discourage the in-fill of 100-year floodplains for commercial or residential development. This process only increases the potential for flooding adjacent properties and interferes with the natural hydrological process of the waterways. It also disrupts the continuity of migration corridors for wildlife. Instead, we recommend that developers set aside a portion of the land to be developed as green space and concentrate these areas along the streams and rivers.
3. The construction of roadways in new neighborhoods or industrial areas can produce short-term direct impacts as well as long-term cumulative effects. Studies have shown a serious decline in the health of receiving waters when 10 to 15 percent of a watershed is converted to impervious surfaces. Impervious surfaces should be limited to no more than 7 percent, curb and gutter should be limited in new developments, and the direct discharge of storm water into streams should be prevented. We recommend the use of grassed swales in place of curb and gutter and on-site storm-water management (i.e., bioretention areas) that will result in no net change in the hydrology of the watershed. These designs often cost less to install and significantly reduce environmental impacts from residential development.
4. Efforts should be made to avoid the removal of large trees at the edges of construction corridors. Disturbed areas should be reseeded with seed mixtures that are beneficial to wildlife. Fescue-based mixtures should be avoided; fescue is invasive and provides little benefit to wildlife. Native annual small grains appropriate for the season are preferred and recommended. Where feasible, use woody debris and logs from corridor clearing to establish brush piles and downed logs at the edge (just in the woods) of the cleared right-of-way to improve habitat for wildlife. Allowing the corridor area to develop into a brush/scrub habitat would maximize benefits to wildlife. Corridor maintenance should be minimized, and mowing should be prohibited between April 1 and October 1 in order to reduce impacts to nesting wildlife. We suggest a maintenance schedule that incorporates a portion of the area (e.g., one-third) each year instead of the entire project every 2 or 3 years. Additionally, herbicides should not be used in wetland areas or near streams.

We believe that the requirements of Section 7 of the Endangered Species Act have been satisfied. However, obligations under Section 7 of the Act must be reconsidered if (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered, (2) this action is subsequently modified in a manner which was not considered in this assessment, or (3) a new species is listed or critical habitat is determined that may be affected by the identified action.

If you should have any questions, please contact Tera Baird at (843)727-4707, ext. 225 and reference FWS Log 2006-I-0743.

Sincerely,

A handwritten signature in cursive script that reads "Timothy N. Hall".

Timothy N. Hall
Field Supervisor

TNH/TKB



United States Department of the Interior



FISH AND WILDLIFE SERVICE

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

February 3, 2016

Mr. Chris Handley
Mr. Chris Daves, PWS
S&ME, Inc.
134 Suber Road
Columbia, SC 29210

Re: Protected Species Assessment, Blythewood Industrial Site, Town of Blythewood,
Richland County, South Carolina
S&ME Project No. 4261-15-181, FWS Log No. 2016-TA-0231

Dear Mr. Handley and Mr. Daves:

The U.S. Fish and Wildlife Service (Service) has reviewed your December 31, 2015, Protected Species Assessment for a tract of land in Richland County, South Carolina. The 670-acre tract is located west of Community Road and Interstate 77, between Blythewood Road and Wilson Boulevard, and approximately 0.80 miles southwest of the Town of Blythewood. The protected species assessment was performed in advance of proposed development on the site. You have requested that the Service provide a review and comments pursuant to the Endangered Species Act of 1973 (ESA).

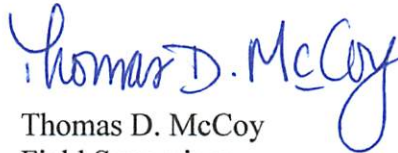
The protected species assessment you submitted does not include general or specific development plans for the tract. Development information is not required but does aid in our evaluation. As such, it is difficult to consider potential impacts to species or critical habitat that may be present onsite or to offsite nearby species. However, you have provided a thorough ecological and habitat description based on site visits performed during November and December of 2015. In addition, you have surveyed for threatened and endangered species known to occur in Richland County.

You initially identified potential habitat for red-cockaded woodpecker (*Picoides borealis*), Canby's dropwort (*Oxypolis canbyi*), Michaux's sumac (*Rhus michauxii*), and smooth coneflower (*Echinacea laevigata*). However, following your site visits and assessment of the current site conditions, you concluded suitable habitat was not present in the project area for the three plant species. You determined potential foraging habitat for red-cockaded woodpecker exists on the project site, but nesting habitat is absent due to the young age of the planted pine stand. You also did not observe any nesting cavities and no occurrence records for the species exist within one mile of the site. The Service agrees with the may affect, but is not likely to adversely affect

determination for red-cockaded woodpecker, Canby's dropwort, Michaux's sumac, and smooth coneflower. In addition, the Service agrees with your conclusion that the tract does not contain suitable habitat for wood stork (*Mycteria americana*) or rough-leaved loosestrife (*Lysimachia asperulaefolia*). We find that future development of the tract is not likely to result in "take" pursuant to section 9 of the ESA for the above-mentioned species. At this time no further action is necessary. The conclusions in this letter are limited to the property boundaries and must be reconsidered if: (1) new information reveals impacts from this identified action may affect 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. Please contact the National Oceanic and Atmospheric Administration's National Marine Fisheries Service for comments regarding Atlantic sturgeon (*Acipenser oxyrinchus*) and shortnose sturgeon (*A. brevirostrum*).

Please continue to work with the South Carolina Department of Natural Resources regarding potential impacts to State protected species. The project area contains potentially jurisdictional wetlands and/or waters of the United States; therefore, we recommend you contact the U.S. Army Corps of Engineers, Charleston District for guidance. If you have any questions on the Service's comments, please contact Ms. Whitney Wiest at (843) 727-4707, ext. 228 and reference FWS Log No. 2016-TA-0231.

Sincerely,

A handwritten signature in blue ink that reads "Thomas D. McCoy". The signature is written in a cursive style with a large, stylized "M" and "C".

Thomas D. McCoy
Field Supervisor

TDM/WAW



United States Department of the Interior
FISH AND WILDLIFE SERVICE
176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407
May 30, 2019



U.S. Fish and Wildlife Service Clearance Letter for Species and Habitat Assessments

The U.S. Fish and Wildlife Service (Service) is one of two lead Federal Agencies mandated with the protection and conservation of Federal trust resources, including threatened and endangered (T&E) species and designated critical habitat as listed under the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*) (ESA). Development of lands in South Carolina have the potential to impact federally protected species. Accordingly, obligations under the ESA, National Environmental Policy Act (NEPA), Clean Water Act (CWA), Federal Power Act (FPA), and other laws, require project proponents to perform an environmental impact review prior to performing work on the site. These projects may include a wide variety of activities including, but not limited to, residential or commercial developments, energy production, power transmission, transportation, infrastructure repair, maintenance, or reconstruction of existing facilities on previously developed land.

Project applicants, or their designated representatives, may perform initial species assessments in advance of specific development proposals to determine the presence of T&E species and designated critical habitat that are protected under the ESA. These reviews are purposely speculative and do not include specific project or site development plans. Many of these speculative proposals are for previously developed or disturbed lands such as pasture lands, agricultural fields, or abandoned industrial facilities. Due to historical uses and existing conditions, these sites often do not contain suitable habitat to support T&E species. Therefore, an assessment may conclude that any future development of the site would have no effect to T&E species or adversely modify designated critical habitat. If the applicant, or their designee, determines there is no effect or impact to federally protected species or designated critical habitat, no further action is required under the ESA.

Clearance to Proceed

For all sites with potential projects that have no effect or impact upon federally protected species or designated critical habitat, no further coordination with the Service is necessary at this time. This letter may be downloaded and serve as the Service's concurrence or agreement to the conclusions of the species assessment. Any protected species survey or assessment conducted for the property should be included with this letter when submitting the project to Federal permitting agencies. Due to obligations under the ESA potential impacts 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.

Please note this Clearance Letter applies only to assessments in South Carolina but may not be used to satisfy section 7 requirements for projects that have already been completed or currently under construction.

If suitable habitat for T&E species or designated critical habitat occurs on, or nearby, the project site, a determination of no effect/impact may not be appropriate. In these cases, direct consultation requests with the Service should be initiated. Additional coordination with the Service may also be required if the potential project requires an evaluation under another resource law such as, but not limited to, NEPA, CWA, FPA, and the Coastal Zone Management Act.

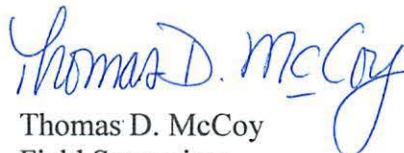
Northern Long-eared Bat Consideration

The Service issued a nationwide programmatic biological opinion (PBO) for the northern long-eared bat (*Myotis septentrionalis*, NLEB) on January 5, 2016. The PBO was issued pursuant to section 7(a)(2) of the ESA to address impacts that Federal actions may have on this species. In addition, the Service published a final 4(d) rule on January 14, 2016, which details special consultation provisions for Federal actions that may affect the NLEB. Briefly, the PBO and the 4(d) rule allow for "incidental" take of the NLEB throughout its range under certain conditions. Take is defined in section 3 of the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Further, incidental take is defined as take that results from, but is not the purpose of, carrying out an otherwise lawful activity. Under the PBO and 4(d) rule, all incidental take of the NLEB is exempted from the ESA's take prohibitions under certain conditions. However, incidental take is prohibited within one quarter mile from known hibernacula and winter roost, or within 150 feet from a known maternity roost tree during the months of June and July.

In consideration of known hibernacula, winter roosts, and maternity roost tree locations in South Carolina, this letter hereby offers blanket concurrence for a may affect, but is not likely to adversely affect determination for the NLEB if the proposed work occurs more than one quarter mile from known hibernacula, winter roosts, or is further than 150 feet from a known maternity roost trees. If an activity falls within one-quarter mile of hibernacula or winter roost or within 150 feet of a maternity roost tree additional consultation with the Service will be required. As a conservation measure for all projects it is recommended that all tree clearing activities be conducted during the NLEB inactive season of November 15th to March 31st of any given year.

The Service appreciates your cooperation in the protection of federally listed species and their habitats in South Carolina.

Sincerely,


Thomas D. McCoy
Field Supervisor

Species Conclusions Table

Project Name: Project Connect

Date: May 3, 2023

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
Bald Eagle	No suitable habitat present	No Eagle Act Permit Required	No nests on or within 660 feet of site
Red-Cockaded Woodpecker	Foraging habitat present	May affect, not likely to adversely affect	Foraging habitat present on SW portion of site; but no RCW nests were observed
Canby's Dropwort	No suitable habitat present	No effect	Habitat assessment indicated no suitable habitat present
Rough-Leaved Loosestrife	No suitable habitat present	No effect	Habitat assessment indicated no suitable habitat present
Smooth Coneflower	Potential suitable habitat present	May affect, not likely to adversely affect	Potential suitable habitat present within utility easements, roadside ROWs, and woodland margins. Additional site visits will be conducted during the flowering season (late May-June) to confirm that no individuals of this species are present in these areas.

Acknowledgement: I agree that the above information about my proposed project is true. I used all of the provided resources to make an informed decision about impacts in the immediate and surrounding areas.



Chris Daves, P.W.S./Senior Scientist

Signature /Title

May 3, 2023

Date